SEMI-ANNUAL PROGRESS REPORT NUMBER 35

(Operating Period July 1 through December 31, 2012)

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

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ACRONYMS AND ABBREVIATIONS

AST	Aboveground Storage Tank
B&N	Burgess & Niple, Incorporated
CD	Consent Decree
CLP	Contract Laboratory Program
DCE	dichloroethene
gpd	gallons per day
gpm	gallons per minute
HDPE	high-density polyethylene
ICs	Institutional Controls
IDEM	Indiana Department of Environmental Management
ISC-LT	Industrial Source Complex – Long-Term
MGD	million gallons per day
MWH	MWH Americas, Inc.
NFG	National Functional Guidelines
O&M	operation and maintenance
OM&M	operation, maintenance, and monitoring
Pace	Pace Analytical Services, Inc.
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
POTW	publicly owned treatment works
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
VOC	volatile organic compound
VC	vinyl chloride
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 July 1 through December 31, 2012. 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 34* (August 1997 through August 2012)

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	664.0
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 in October. 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 October 2012, samples were

collected from 13 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 October 2012, 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; these wells were sampled during this reporting period, and no VOCs were detected in either sample.
- During this reporting period, monitoring 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 July and December 2012. The water samples were analyzed by Pace Analytical Services, Inc. (Pace) of Indianapolis, Indiana for one or more of the following parameters: VOCs, metals, PCBs, total suspended solids, total solids, ammonia, nitrogen, phosphorus, chemical oxygen demand, recoverable phenolic compounds, surfactants, and oil and grease. The methods used by the laboratory for these analyses are listed in ***Appendix B***. 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 Superfund Organic Methods Data Review (June 2008), U.S. EPA CLP NFG for Inorganic Superfund Data Review (January 2010), and the analytical methods. The analytical data were reviewed and qualified by Pace Analytical Services and MWH Americas 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 data review and validation was performed in accordance with the *QAPjP* (and addendum). If analytical data did not meet the QC criteria, the results 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 reduced 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 operating.

3.2 MONITORING RESULTS

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

- During the period of July 1 through December 31, 2012, the SVE system was operational for approximately 99.6 percent of the time (i.e., percent of total hours available). Downtime events were related to standard, regularly scheduled OM&M activities, and maintenance and repairs.
- Air flow rates were collected each month from July through December 2012. The flow rate in Branch Line G averaged approximately 1,200 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 October 2012 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, an estimated 12,147 pounds of VOCs have been removed via the SVE system from vadose zone soils to date, with 10.5 pounds removed from July through December 2012. 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 0.06 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 1997 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 October 2012, samples were collected from 13 WRR Site monitoring wells and analyzed for VOCs and metals. Groundwater monitoring results for samples collected in October 2012 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 15 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 (RW-1 through RW-3) in the AST Area, one recovery well (RW-4) in the monitoring well MW-7S area, and six recovery wells (RW-5 through RW-10) in the SE Area (***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 July through December 2012, the groundwater extraction system was operational for approximately 99.6 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, and cleaning and repair of the pumps and flow meters.
- 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 61 gpm. During this reporting period, a total of 16,089,408 gallons of groundwater was recovered and treated. The largest total monthly flow was reported at 2,905,086 gallons for the month of September. The highest average

daily recovery rate during the reporting period was 96,800 gallons per day (gpd), which was reported during September. ***Figure 5*** is a summary of the cumulative and average daily groundwater recovery rates from October 1995 through December 2012. As of December 31, 2012, a cumulative total of 480,204,904 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 were used to evaluate the configuration of the water table under pumping conditions, July through December 2012. Water table elevation data are provided in ***Table 5***. Groundwater contour maps for July through December 2012 are presented as ***Figures 7-1*** through ***7-4***, ***7-6***, and ***7-7***. Because groundwater elevations were measured in all monitoring wells in October, ***Figure 7-4*** reflects 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 October 2012 groundwater elevations in the landfill wells discussed in the B&N report (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 October 2012.
- Columbia City municipal drinking water wells located to the north of the WRR Site are sampled annually in October. Results from October 2012 and historical laboratory analytical results from these wells are

presented in ***Appendix D, Tables D-3*** and ***D-4***. Constituents associated with the WRR Site have never been detected in samples collected from the municipal wells.

- Groundwater from recovery wells RW-1, RW-3, RW-4, and RW-5 is sampled and analyzed for VOCs on an annual basis. Sample results for October 2012 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 0.57 to 0.83 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 October 2012 event, the elevation within the confines of the slurry wall was 4.11 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 maintain the extraction system recovery rates and thereby to maintain an upward vertical hydraulic 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 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-1D, MW-4S, MW-7S, MW-9S, MW-11S, MW-13S, MW-14S, MW-15S, MW-16S, MW-83AD, MW-83DS, MW-83B, and MW-83AS.
Due to insufficient groundwater yield, a sample could not be collected from monitoring wells MW-3S and MW-10S.

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 October 2012 are also included in ***Figure 7-5***. The October 2012 recovery well VOCs analytical data 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-1D – In October of 2012, no VOCs were detected in MW-1D. This is consistent with historical results.
- MW-11S – 1,1-Dichloroethene (1,1-DCE, 4.1 µg/L), cis-1,2-DCE (258 µg/L), and VC (120 µg/L) were detected above PRGs in the sample collected from MW-11S. The PRGs for 1,1-DCE, cis-1,2-DCE, and VC are 0.0167 µg/L, 70 µg/L, and 0.0283 µg/L,

respectively. The results obtained during this sampling event are generally consistent with the results obtained since October 2008.

- MW-13S – cis-1,2-DCE (21 µg/L), 1,2-dichloropropane (1,2-DCP, 6.1 µg/L), TCE, 53 µg/L, and VC (12 µg/L) were detected in the sample collected from MW-13S. The 1,2-DCP, TCE, and VC sample results exceeded PRGs, while the cis-1,2-DCE sample result did not exceed the PRG. The results appeared slightly less than or generally consistent with historical results.
- MW-83AS – 1,1-DCA (21 µg/L), cis-1,2-DCE (670 µg/L), and VC (341 µg/L) were detected in the sample collected from MW-83AS. The cis-1,2-DCE and VC results exceeded PRGs (70 µg/L and 0.0283 µg/L, respectively). The 1,1-DCA result did not exceed the PRG. The 1,1-DCA, cis-1,2-DCE, and VC concentrations detected in October 2012 were higher than the recent sample results but generally consistent with historical sample results.
- MW-83AD – In October 2012, cis-1,2-DCE (3.7 µg/L) was detected in the sample collected from MW-83AD. The cis-1,2-DCE result did not exceed the PRG. The October 2012 result for this compound is lower than recent sample results; however, based on historical data, concentrations at this well appear to fluctuate.
- MW-83B – In October 2012, VOCs were not detected at MW-83B. These results are generally consistent with historical sample results observed at this well location, with the exception of one detection of cis-1,2-DCE during the October 2010 event.
- MW-83DS – In October of 2012, cis-1,2-DCE (22µg/L) and VC (15 µg/L) were detected in the sample collected from MW-83DS. The VC result exceeded the PRG, although the cis-1,2-DCE result did not exceed the PRG. The concentrations for these compounds were

consistent with the results obtained during October 2011 and significantly lower than historical sample results.

- RW-5 – In October of 2012, benzene (1.7 µg/L), cis-1,2-DCE (1,110 µg/L), TCE (21 µg/L), and VC (237 µg/L) were detected above their respective PRGs in the sample collected from RW-5. The concentrations for these compounds were generally similar to the results obtained since 2008, but lower than historical sample results.

The following table summarizes the most recent VOC results that exceed PRGs for each well in the SE Area. The general trend in VOC concentrations for each well is also presented. These general trends are based on a qualitative assessment of the historical sample results (i.e., the trends are not based on quantitative statistical tests).

Well Name	VOCs that Exceed PRGs	General VOC Concentration Trend
MW-1D	None	None
MW-11S	1,1-DCE cis-1,2-DCE VC	None
MW-13S	1,2-DCP TCE VC	None
MW-83AS	cis-1,2-DCE VC	None
MW-83AD	None	None
MW-83B	None	None
MW-83DS	VC	Decreasing
RW-5	Benzene cis-1,2-DCE TCE VC	Decreasing

<u>AST Area</u>

- MW-9S – Concentrations of 1,1-DCE (32 µg/L), cis-1,2-DCE (22,100 µg/L), trans-1,2-DCE (161 µg/L), PCE (25 µg/L), TCE (6,960 µg/L), and VC (259 µg/L) were detected in October 2012 in MW-9S. These

results exceeded PRGs (1,1-DCE - 0.0167 µg/L, cis-1,2-DCE - 70 µg/L, trans-1,2-DCE - 100 µg/L, PCE - 1.43 µg/L, TCE - 2.54 µg/L, and VC - 0.0283 µg/L, respectively). The sample results from this reporting period are generally consistent with historical results, which fluctuate.

- MW-14S – 1,1-DCA (14 µg/L) and cis-1,2-DCE (1.9 µg/L) were detected in the sample collected from MW-14S. These results did not exceed PRGs. The results obtained during this sampling event are generally consistent with the results obtained since October 2008.
- MW-15S – TCE (1.1 µg/L) was detected in the sample obtained during this reporting period. This result does not exceed the PRG for the site. This result is generally lower than historical results, and consistent with results from the last three reporting periods.
- MW-16S – 1,1-DCA (13 µg/L), cis-1,2-DCE (34 µg/L), trans-1,2-DCE, 1.4 µg/L), 1,1,1-TCA (4.7 µg/L), and VC (4.1 µg/L) were detected during this reporting period in MW-16S. The VC sample result exceeded the PRG (0.0283 µg/L), and other results were below applicable PRGs. The results obtained during this sampling event are generally consistent with the results obtained since October 2008, but lower than sample results obtained prior to October 2008.
- RW-1 – Chloroform (3.0 µg/L) and VC (6.0 µg/L) were detected at concentrations that exceeded their respective PRGs. 1,1-DCA (22 µg/L), cis-1,2-DCE (13µg/L), 1,1,1-TCA (5.2 µg/L), and TCE (1.4 µg/L) were also detected, although below their respective PRGs. With the exception of chloroform, which has not been detected before, each of these constituents was detected at lower concentrations than historical sample results.
- RW-3 – cis-1,2-DCE (75 µg/L), trans-1,2-DCE (3.0 µg/L), 1,1,1-TCA (3.9 µg/L), TCE (43 µg/L), and VC (7.6 µg/L) were detected in the

sample collected from RW-3. cis-1,2-DCE, TCE, and VC were detected above their respective PRGs. The sample results were generally lower than historical results for each detected compound.

The following table summarizes the most recent VOC results that exceed PRGs for each well in the AST Area. The general trend in VOC concentrations for each well is also presented. These general trends are based on a qualitative assessment of the historical sample results (i.e., the trends are not based on quantitative statistical tests).

Well Name	VOCs that Exceed PRGs	General VOC Concentration Trend
MW-9S	1,1-DCE cis-1,2-DCE trans-1,2-DCE PCE TCE VC	None
MW-14S	None	Decreasing
MW-15S	None	Decreasing
MW-16S	VC	Decreasing
RW-1	Chloroform VC	Decreasing
RW-3	cis-1,2-DCE TCE VC	Decreasing

Recovery Well RW-4 Area:

- MW-4S – In October 2012, cis-1,2-DCE (2.5 µg/L) and VC (2.1 µg/L) were detected in MW-4S. The cis-1,2-DCE result did not exceed the PRG. The VC result exceeded the PRG of 0.0283 µg/L. cis-1,2-DCE has now been detected during three consecutive sampling events. Historically, cis-1,2-DCE has only been sporadically detected in the samples from MW-4S (e.g., detected only four times between 1988 and 2011). The detected concentration of VC (2.1 µg/L) is generally

consistent with the sample results since 2006, which range from non-detect to 7.2 µg/L.

- MW-7S – In October 2012, cis-1,2-DCE (171 µg/L) and trans-1,2-DCE (21 µg/L) were detected in MW-7S. The trans-1,2-DCE result did not exceed the PRG. The cis-1,2-DCE result exceeded the PRG of 70 µg/L. The results from this sampling event are generally consistent with the results obtained since October 2001.
- RW-4 – Chloroform (4.2 µg/L), cis-1,2-DCE (114 µg/L), trans-1,2-DCE (13 µg/L), and TCE (1.3 µg/L) were detected in October 2012 in RW-4. Trans-1,2-DCE and TCE were detected below their respective PRGs, while chloroform and cis-1,2-DCE were detected above their respective PRGs. The results for trans-1,2-DCE and cis-1,2-DCE were generally lower than the historical results for these compound. Chloroform has not been detected before. TCE was detected during this event and the previous event (October 2011). TCE was only detected one other time (November 2001).

The following table summarizes the most recent VOC results that exceed PRGs for each well in the RW-4 Area. The general trend in VOC concentrations for each well is also presented. These general trends are based on a qualitative assessment of the historical sample results (i.e., the trends are not based on quantitative statistical tests).

Well Name	VOCs that Exceed PRGs	General VOC Concentration Trend
MW-4S	VC	None
MW-7S	cis-1,2-DCE	None
RW-4	Chloroform cis-1,2-DCE	Decreasing

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 July through December 2012, the groundwater pretreatment system was operational 99.6 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 for influent are summarized in ***Figure 6***. The air stripping tower has consistently removed VOCs prior to discharge of treated groundwater 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

1,060 µg/L in July 2012 and ended at 802 µg/L in December 2012 (***Table 7***). The average total VOC concentration removed during the reporting period was approximately 960.5 µg/L. For this reporting period, the average groundwater constituent mass removal rate for the groundwater treatment system was 0.71 pounds of total VOCs per day, based on an average flow rate of 87,417 gpd, and an average total VOC concentration removed of 960.5 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 October 2012 are provided in ***Appendix D***, ***Table D-6***. The total mass removed during the period of July through December 2012 and attributable to the groundwater pre-treatment system is approximately 130 pounds. The total mass removed to date is an estimated 5,198 pounds.

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

5.3 PROGRESS TOWARD REMEDIAL OBJECTIVES

VOC 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 the groundwater treatment system removes VOCs by three orders-of-magnitude until only low concentrations of VOCs (i.e., less than 40 µg/L) 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 beneath 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 the Indiana Department of Environmental Management (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 polynuclear aromatic hydrocarbons (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 17,345 pounds of total VOCs have been removed by the SVE and groundwater treatment systems (***Figure 8***). Of this, approximately 70 percent (or 12,147 pounds) is attributed to operation of the SVE and air sparging system, and approximately 30 percent (or 5,198 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. As of this reporting period, the removal rate has decreased to approximately 0.77 pounds of total VOCs per day (i.e., 0.06 pounds per day from the SVE system [Section 3.3] plus 0.71 pounds per day from the groundwater treatment system [Section 5.2]).

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 - AST Area
July through December 2012
Wayne Reclamation & Recycling

Measurement Date	Air Flow AST Area (scfm)
7/11/12	1,200
8/20/12	1,300
9/6/12	1,100
10/24/12	1,200
11/29/12	1,200
12/13/12	1,200
Average Flow	1,200
Maximum Flow	1,300
Minimum Flow	1,100

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
October 2012
Wayne Reclamation & Recycling

Constituent (ppb[v/v])	AST Area Branch G (East Branch)
1,1-Dichloroethane	**0.92**
cis-1,2-Dichloroethene	**37**
trans-1,2-Dichloroethene	**1.6**
4-Ethyltoluene	NA
Tetrachloroethene	**5.0**
1,1,1-Trichloroethane	**1.6**
Trichloroethene	**48**
1,2,4-Trimethylbenzene	**8.3**
1,3,5-Trimethylbenzene	**2.3**
Vinyl Chloride	**2.1**
Xylenes, Total	**5.4**

Notes:

Soil Vapor Extraction Wells: 41 - 43, 50, and 53 - 58

Bold = Analyte detected greater than the laboratory reporting limit.

< = Not detected greater than the reporting limit provided.

AST = Above ground storage tank

ppb[v/v] = parts per billion (volume)

Table 3
Monitoring Well Analytical Results
October 2012
Wayne Reclamation & Recycling

Constituent	MW-1D (Southeast Area) 10/18/12	MW-4S (RW-4 Area) 10/17/12	MW-7S (RW-4 Area) 10/18/12	MW-9S (AST Area) 10/17/12	MW-11S (Southeast Area) 10/18/12	MW-13S (Southeast Area) 10/17/12	MW-14S (AST Area) 10/17/12	MW-15S (AST Area) 10/18/12	MW-16S (AST Area) 10/18/12	MW-83AD (Southeast Area) 10/18/12	MW-83DS (Southeast Area) 10/17/12	MW-83B (Southeast Area) 10/18/12	MW-83AS (Southeast Area) 10/17/12	PRG (µg/L)
VOCs (µg/L)														
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	3,650
Benzene	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	*<1*	0.617
Bromomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	--
2-Butanone (MEK)	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	--
n-Butylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	768
Chloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	--
Chloroform	*< 1*	*< 1*	*< 1*	*< 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	< 1	--
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	**14**	< 1	**13**	< 1	< 1	< 1	**21**	973
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	*< 1*	*< 1*	*< 1*	**32**	**4.1**	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	0.0167
cis-1,2-Dichloroethene	< 1	**2.5**	**171**	**22,100**	**258**	**21**	**1.9**	< 1	**34**	**3.7**	**22**	< 1	**670**	70
trans-1,2-Dichloroethene	<1	<1	**21**	**161**	<1	<1	<1	<1	**1.4**	<1	<1	<1	<1	100
1,2-Dichloroethene, Total	<2	**2.5**	**192**	**22,261**	**258**	**21**	**1.9**	<2	**36**	**3.7**	**22**	<2	**670**	(170)
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1	**6.1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.25
Ethylbenzene	< 1	< 1	< 1	< 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	< 20	< 20	< 20	487
Tetrachloroethene	< 1	< 1	< 1	**25**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.43
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1,000
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**4.7**	< 1	< 1	< 1	< 1	200
1,1,2-Trichloroethane	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	0.314
Trichloroethene	<1	<1	<1	**6,960**	<1	**53**	<1	**1.1**	<1	<1	<1	<1	<1	2.54
1,2,4-Trimethylbenzene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	*<1*	**2.1**	*<1*	**259**	**120**	**12**	*<1*	*<1*	**4.1**	*<1*	**15**	*<1*	**341**	0.0283
Xylenes, Total	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	828
Total VOCs	**0**	**4.6**	**192**	**29,537**	**382**	**92**	**16**	**1.1**	**58**	**3.7**	**38**	**0**	**1,032**	**--**
Metals (mg/L)														
Arsenic, Dissolved	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	--
Barium, Dissolved	**0.12**	**0.14**	**0.079**	**0.07**	**0.055**	**0.11**	**0.048**	**0.063**	**0.039**	**0.12**	**0.077**	**0.14**	**0.075**	--
Cadmium, Dissolved	<0.03	<0.03	<0.03	<0.03	< 0.03	< 0.03	< 0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	--
Chromium, Dissolved total	<0.04	<0.04	<0.04	<0.04	< 0.04	< 0.04	< 0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	--
Cyanide, Total	<0.005	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	NA	<0.005	<0.005	--
Lead, Dissolved	<0.08	<0.08	<0.08	<0.08	< 0.08	< 0.08	< 0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	--
Nickel, Dissolved	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Zinc, Dissolved	<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	--

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 storage 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

July 2012		August 2012		September 2012		October 2012		November 2012		December 2012	
DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)	DATE	FLOW (gpd)
1	90,720	1	95,616	1	90,288	1	84,816	1	52,272	1	75,024
2	84,960	2	95,616	2	90,288	2	84,816	2	52,272	2	75,024
3	84,960	3	95,616	3	90,288	3	84,816	3	121,680	3	72,432
4	84,960	4	95,616	4	86,112	4	93,168	4	121,680	4	88,704
5	81,216	5	95,616	5	86,112	5	93,168	5	80,496	5	89,136
6	81,216	6	81,648	6	86,112	6	93,168	6	79,632	6	102,096
7	81,216	7	81,648	7	89,424	7	93,168	7	70,416	7	102,096
8	81,216	8	81,648	8	89,424	8	93,168	8	60,336	8	102,096
9	81,216	9	81,648	9	89,424	9	68,112	9	60,336	9	102,096
10	48,960	10	79,647	10	89,424	10	68,112	10	60,336	10	105,264
11	48,960	11	82,512	11	89,915	11	68,112	11	60,336	11	105,264
12	76,608	12	82,512	12	105,696	12	77,328	12	61,817	12	105,264
13	101,088	13	82,512	13	105,696	13	77,328	13	73,872	13	106,704
14	101,088	14	82,512	14	101,808	14	80,496	14	73,872	14	106,704
15	101,088	15	82,512	15	101,808	15	80,496	15	80,640	15	106,704
16	101,088	16	76,752	16	101,808	16	77,760	16	80,640	16	106,704
17	101,088	17	76,752	17	101,808	17	77,760	17	77,472	17	106,704
18	106,848	18	76,752	18	109,123	18	77,328	18	77,472	18	75,168
19	106,848	19	76,752	19	119,952	19	77,328	19	77,472	19	75,168
20	106,848	20	76,752	20	119,952	20	77,328	20	77,184	20	75,168
21	106,848	21	85,968	21	99,216	21	77,328	21	75,024	21	75,168
22	106,848	22	85,968	22	99,216	22	77,328	22	75,024	22	75,168
23	106,848	23	85,968	23	99,216	23	77,328	23	75,024	23	75,168
24	106,848	24	85,968	24	106,848	24	77,190	24	75,024	24	87,120
25	106,848	25	85,968	25	106,848	25	89,280	25	75,024	25	87,120
26	106,848	26	85,968	26	89,856	26	94,896	26	73,872	26	87,120
27	95,616	27	89,971	27	89,856	27	94,896	27	73,872	27	93,600
28	95,616	28	92,016	28	89,856	28	94,896	28	73,872	28	93,600
29	95,616	29	92,016	29	89,856	29	94,896	29	70,209	29	93,600
30	95,616	30	90,288	30	89,856	30	87,696	30	75,168	30	93,600
31	95,616	31	90,288			31	87,696			31	93,600
Total Monthly Flow (gallons)											
	2,871,360		2,651,026		2,905,086		2,581,206		2,242,346		2,838,384
Average Daily Flow (gallons)											
	92,600		85,500		96,800		83,300		74,700		91,600
Total Plant Run Time (minutes)											
	44,640		44,558		42,855		44,445		42,870		44,640
Average Flow during Plant Run Time (gpm)											
	64		**59**		**68**		**58**		**52**		**64**

Notes:

gpd = Gallons per day. gpm = Gallons per minute.

Average Daily Flow is calculated by dividing the total monthly flow by the total number of operational days for the given month, then rounded to the nearest 100 gallons.

Average Flow during Plant Run Time is calculated by dividing the total monthly flow by the total plant run time for the given month, then rounded to the nearest gallon.

Period	Total Gallons Treated
6 Months	16,089,408
12 Months	31,388,879
Since 1995	480,204,904

Table 5
Summary of Groundwater Elevations
Wayne Reclamation & Recycling

Well Identification	TOIC Elevation 2001 - 2003	Groundwater Elevation (feet above mean sea level)					
	Date:	07/11/2012	08/20/2012	09/06/2012	10/16/2012	11/29/2012	12/13/2012
MW-1D	826.08	--	--	--	810.91	--	--
MW-2S	825.34	805.46	806.26	805.97	806.03	806.74	806.12
MW-3S	824.06	806.30	806.65	807.39	807.39	807.51	806.22
MW-4S	843.06	--	--	--	809.81	--	--
MW-5S	833.02	--	--	--	810.64	--	--
MW-7S	836.12	--	--	--	809.85	--	--
MW-8S	835.52	--	--	--	809.84	--	--
MW-8D	834.11	--	--	--	811.13	--	--
MW-9S	825.44	--	--	--	809.64	--	--
MW-10S	823.15	805.99	806.73	805.89	806.12	807.18	806.09
MW-11S	825.08	806.51	806.85	806.61	806.75	807.48	806.63
MW-13S	826.40	810.78	810.79	810.83	810.86	810.85	810.75
MW-13D	826.44	--	--	--	810.00	--	--
MW-14S	821.30	--	--	--	810.12	--	--
MW-15S	827.64	--	--	--	809.91	--	--
MW-16S	827.41	--	--	--	809.79	--	--
MW-17S	826.56	--	--	--	810.25	--	--
MW-18S	824.16	--	--	--	810.25	--	--
MW-19S	832.07	--	--	--	810.04	--	--
P-1	834.28	--	--	--	809.78	--	--
P-2	825.49	--	--	--	809.77	--	--
P-3	823.48	--	--	--	809.77	--	--
P-4	822.67	--	--	--	809.70	--	--
MW-83AD	826.15	808.77	808.71	809.00	809.14	809.40	808.92
MW-83AS	826.13	805.41	806.20	805.88	805.96	806.68	806.05
MW-83B	840.55	--	--	--	810.17	--	--
MW-83DD	825.30	--	--	--	809.99	--	--
MW-83DS	825.21	810.06	809.97	810.19	810.28	810.31	809.63
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.

Table 6
Recovery Well Analytical Results
October 2012
Wayne Reclamation & Recycling

Constituent	RW-1 10/17/2012	RW-3 10/17/2012	RW-4 10/16/2012	RW-5 10/16/2012	PRG (µg/L)
VOCs (µg/L)					
Acetone	< 20	< 20	< 20	< 20	3,650
Benzene	*< 1*	*< 1*	*< 1*	**1.7**	0.617
Bromomethane	< 2	< 2	< 2	< 1	--
2-Butanone (MEK)	< 20	< 20	< 20	< 20	--
n-Butylbenzene	< 1	< 1	< 1	< 1	--
Carbon Disulfide	< 5	< 5	< 5	< 5	768
Chloroethane	<2	< 2	< 2	< 2	--
Chloroform	**3.0**	*< 1*	**4.2**	*< 1*	0.274
Dibromomethane	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**22**	< 1	< 1	<1	973
1,2-Dichloroethane	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	*< 1*	*< 1*	*< 1*	<1	0.0167
cis-1,2-Dichloroethene	**13**	**75**	**114**	**1,100**	70
trans-1,2-Dichloroethene	< 1	**3.0**	**13**	**11**	100
1,2-Dichloroethene, Total	**13**	**78**	**127**	**1,111**	(170)
1,2-Dichloropropane	< 1	< 1	< 1	< 1	1.25
Ethylbenzene	< 1	< 1	< 1	< 1	700
4-Methyl-2-pentanone (MIBK)	< 20	< 20	< 20	< 20	487
Tetrachloroethene	< 1	< 1	< 1	< 1	1.43
Toluene	< 1	< 1	< 1	< 1	1,000
1,1,1-Trichloroethane	**5.2**	**3.9**	< 1	< 1	200
1,1,2-Trichloroethane	*< 1*	*< 1*	*< 1*	*< 1*	0.314
Trichloroethene	**1.4**	**43**	**1.3**	**21**	2.54
1,2,4-Trimethylbenzene	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**6.0**	**7.6**	*<1*	**237**	0.0283
Xylenes, Total	< 2	< 2	< 2	< 2	828
Total VOCs	**51**	**132**	**132**	**1,371**	--

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

	7/12/2012		8/20/2012		9/6/2012	
Constituent (ug/L)	**IN**	**EFF**	**IN**	**EFF**	**IN**	**EFF**
1,1-Dichloroethane	**10**	<1.0	**11**	<1.0	**12**	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	**2.1**	<1.0	<1.0	<1.0	**2.0**	<1.0
cis-1,2-Dichloroethene	**700**	**3.0**	**751**	**1.8**	**653**	**2.6**
trans-1,2-Dichloroethene	**10**	<1.0	**9.7**	<1.0	**9.7**	<1.0
Trichloroethene	**188**	<1.0	**136**	<1.0	**181**	**2.9**
Vinyl Chloride	**149**	<1.0	**127**	<1.0	**131**	<1.0
Total VOC Concentration	**1,060**	**3.0**	**1,035**	**1.8**	**988**	**5.5**

	10/23/2012		11/29/2012		12/13/2012	
Constituent (ug/L)	**IN**	**EFF**	**IN**	**EFF**	**IN**	**EFF**
1,1-Dichloroethane	**8.9**	<1.0	**13**	<1.0	**7.8**	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	**1.5**	<1.0	<1.0	<1.0	**2.1**	<1.0
cis-1,2-Dichloroethene	**546**	**5.5**	**734**	**3.5**	**550**	**2.1**
trans-1,2-Dichloroethene	**9.2**	<1.0	**13**	<1.0	**9.0**	<1.0
Trichloroethene	**145**	<1.0	**235**	<1.0	**161**	<1.0
Vinyl Chloride	**97**	<1.0	**98**	<1.0	**72**	<1.0
Total VOC Concentration	**807**	**5.5**	**1,092**	**3.5**	**802**	**2.1**

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])	EFFLUENT SAMPLE					
	7/11/2012	**8/20/2012**	**9/06/2012**	**10/24/2012**	**11/29/2012**	**12/13/2012**
1,1-Dichloroethane	<57.6	<27.8	**11.6**	<74.5	<53.6	**0.97**
1,1-Dichloroethene	<57.6	<27.8	**1.6**	<74.5	<53.6	<0.67
cis-1,2-Dichloroethene	**1,470**	**884**	**1,010**	**1,020**	**1,210**	**904**
trans-1,2-Dichloroethene	<57.6	<27.8	**11.1**	<74.5	<53.6	**1.1**
Tetrachloroethene	<57.6	<27.8	**12.9**	<74.5	<53.6	<0.67
Toluene	<57.6	<27.8	<0.70	<74.5	<53.6	**0.85**
1,1,1-Trichloroethane	<57.6	<27.8	**3.5**	<74.5	<53.6	<0.67
Trichloroethene	**266**	**164**	**173 J**	**233**	**223**	**331**
Vinyl Chloride	**204**	**171**	**116 J**	**217**	**220**	**15.0**
Cumulative Cancer Risk (1)	**7.02E-08**	**5.25E-08**	**3.80E-08**	**7.41E-08**	**7.16E-08**	**2.10E-08**

Notes:

(1) Cumulative Cancer 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])	58	266	58	1470	58	204	58	58	58	
7/11/2012	(g/s)	0.0003	0.0015	0.0003	0.0082	0.0003	0.0011	0.0003	0.0003	0.0003	
	Max.Conc.	0.002	0.007	0.002	0.039	0.002	0.005	0.002	0.002	0.002	
	ECR	8.94E-09	1.40E-08				4.72E-08		2.47E-11		7.02E-08
EFF	(ppb[v/v])	28	164	28	884	28	171	28	28	28	
8/20/2012	(g/s)	0.0002	0.0009	0.0002	0.0049	0.0002	0.0010	0.0002	0.0002	0.0002	
	Max.Conc.	0.001	0.004	0.001	0.023	0.001	0.004	0.001	0.001	0.001	
	ECR	4.31E-09	8.63E-09				3.96E-08		1.19E-11		5.25E-08
EFF	(ppb[v/v])	13	173	2	1010	11	116	4	12	1	
9/06/2012	(g/s)	0.0001	0.0010	0.0000	0.0057	0.0001	0.0006	0.0000	0.0001	0.0000	
	Max.Conc.	0.000	0.005	0.000	0.027	0.000	0.003	0.000	0.000	0.000	
	ECR	2.00E-09	9.10E-09				2.68E-08		4.97E-12		3.80E-08
EFF	(ppb[v/v])	75	233	75	1020	75	217	75	75	75	
10/24/2012	(g/s)	0.0004	0.0013	0.0004	0.0057	0.0004	0.0012	0.0004	0.0004	0.0004	
	Max.Conc.	0.002	0.006	0.002	0.027	0.002	0.006	0.002	0.002	0.002	
	ECR	1.16E-08	1.23E-08				5.02E-08		3.19E-11		7.41E-08
EFF	(ppb[v/v])	58	223	54	1210	54	220	54	54	54	
11/29/2012	(g/s)	0.0003	0.0012	0.0003	0.0068	0.0003	0.0012	0.0003	0.0003	0.0003	
	Max.Conc.	0.0015	0.006	0.001	0.032	0.001	0.006	0.001	0.001	0.001	
	ECR	8.97E-09	1.17E-08				5.09E-08		2.30E-11		7.16E-08
EFF	(ppb[v/v])	1	331	1	904	1	15	1	1	1	
12/13/2012	(g/s)	0.0000	0.0019	0.0000	0.0051	0.0000	0.0001	0.0000	0.0000	0.0000	
	Max.Conc.	0.000	0.009	0.000	0.024	0.000	0.000	0.000	0.000	0.000	
	ECR	1.04E-10	1.74E-08				3.47E-09		4.16E-13		2.10E-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.

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

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

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

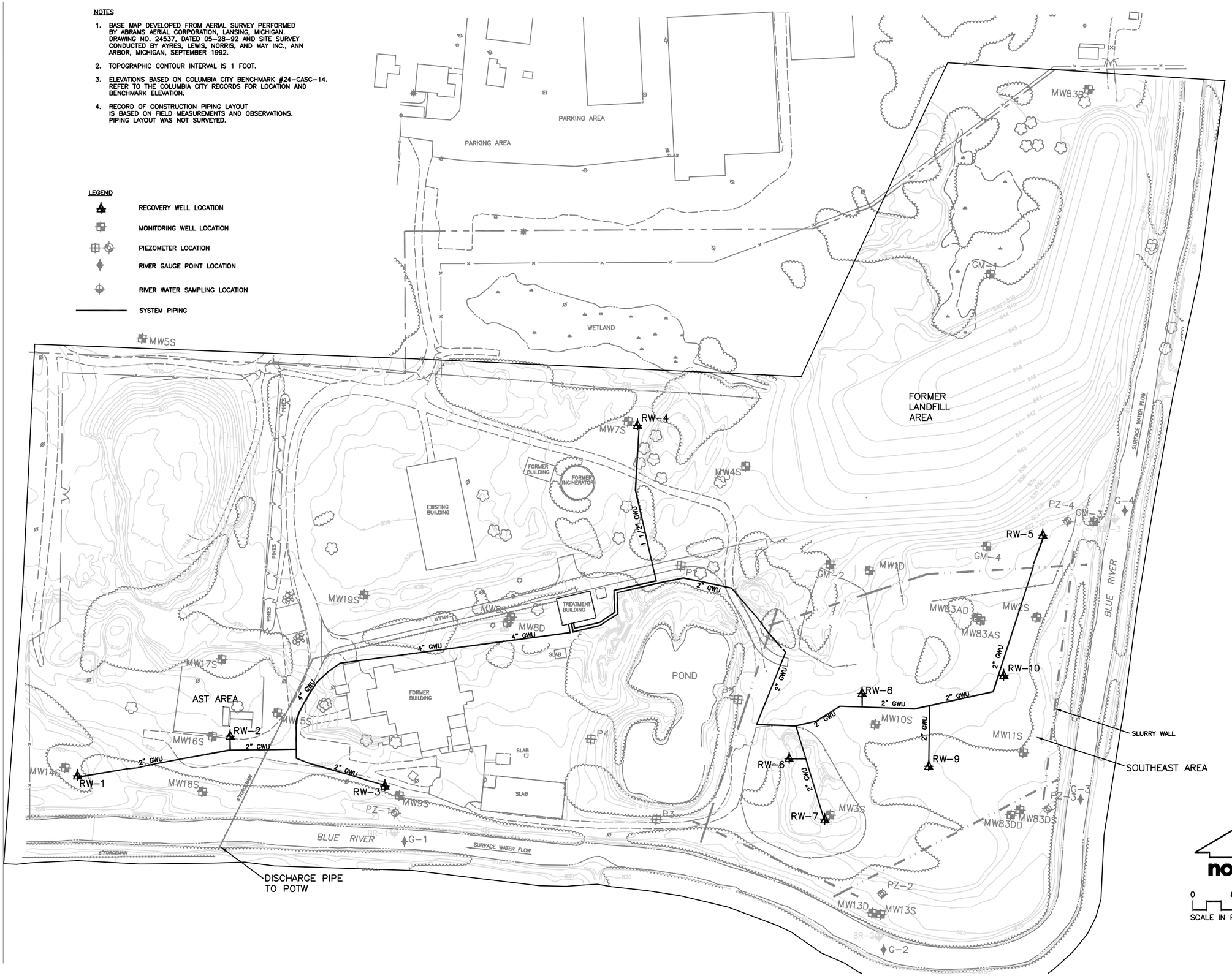

FIGURE 1

Drawn By	TLP
Developed By	BRT
Approved By	BRT
Date	12/13/12
Reference	
Consultants	

Release	Issuance/Revisions	Date	By	Approvd.

SITE PLAN – GROUNDWATER EXTRACTION & TREATMENT SYSTEM AND SLURRY WALL

SEMI-ANNUAL PROGRESS REPORT 35
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

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J:\01_INDUSTRIAL-OTHER\3868-Wayne RR\5-CADD\SAPR 35\Fig 01 Grdwtr Ext Treat Sys.dwg Dec/13/12

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

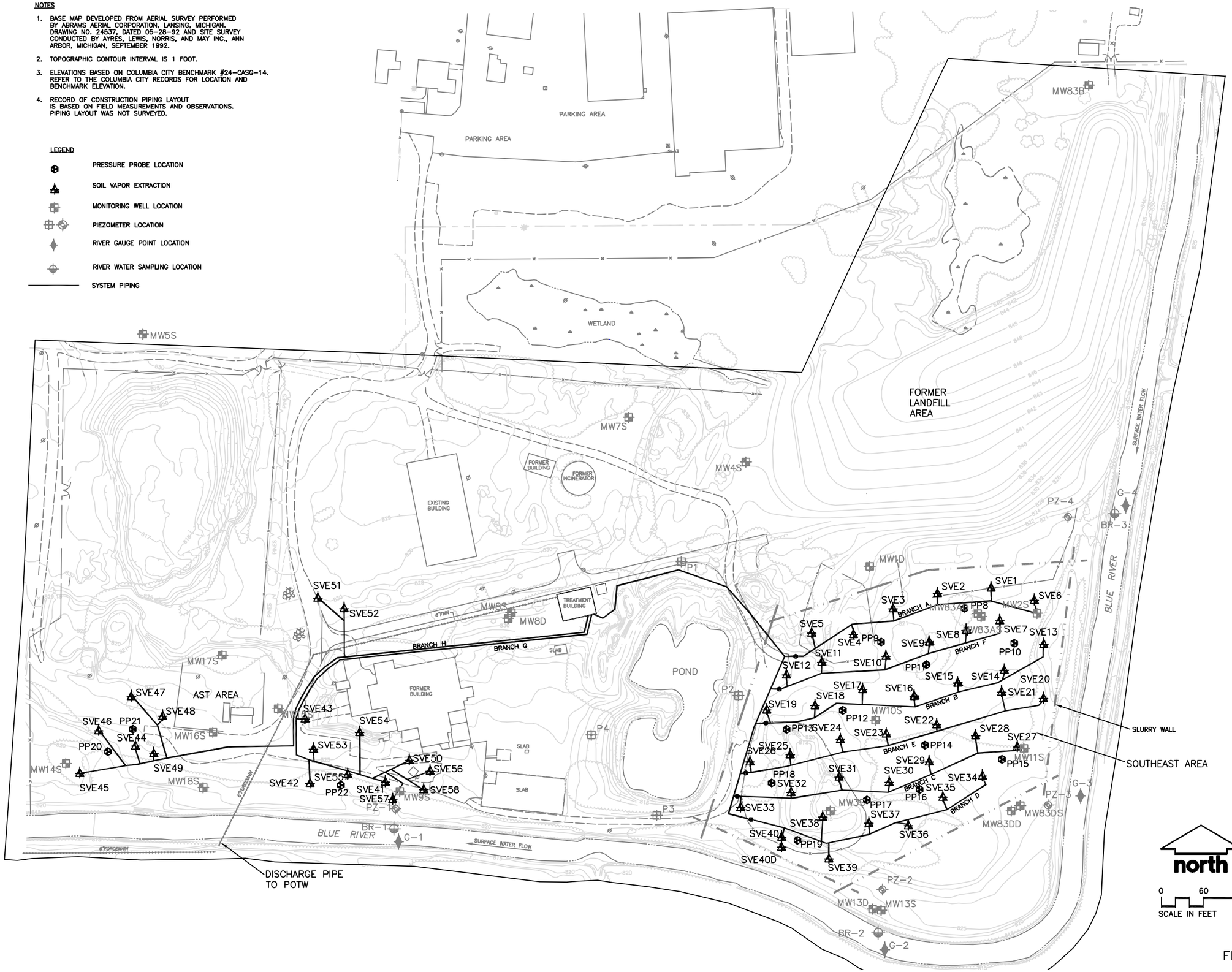

FIGURE 2

Releases	Issuance/Revisions	Date	By	Apprvd.

Developed By BRT
Approved By BRT
Drawn By TLP
Date 12/13/12
Reference
Consultants

SITE PLAN – SOIL VAPOR EXTRACTION SYSTEM

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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

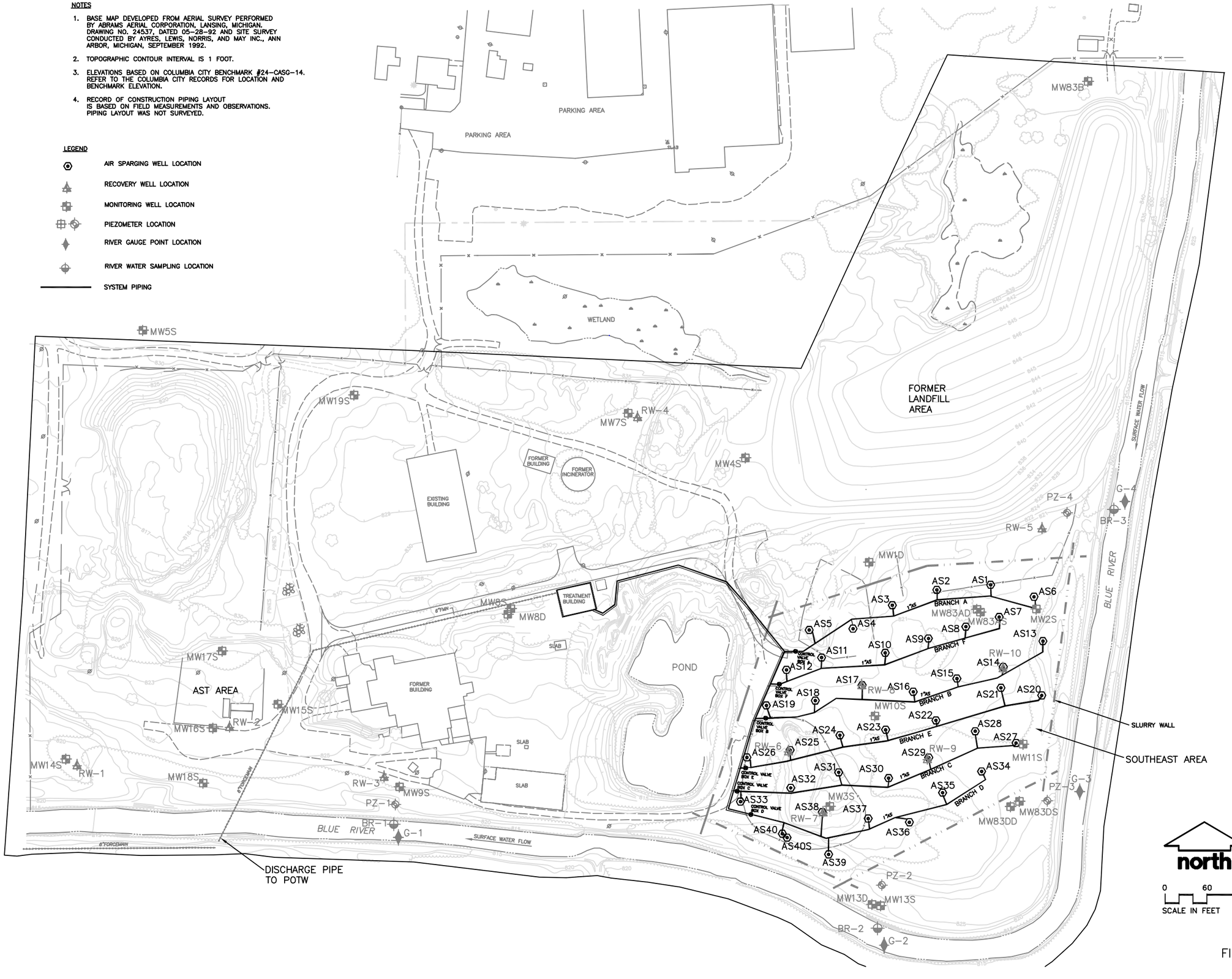

FIGURE 3

Developed By	BRT	Drawn By	TLP
Approved By	BRT	Date	12/13/12
Reference			
Consultants			

Approvd.	By	Date	Issuance/Revisions	Release

SITE PLAN - AIR SPARGING SYSTEM

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

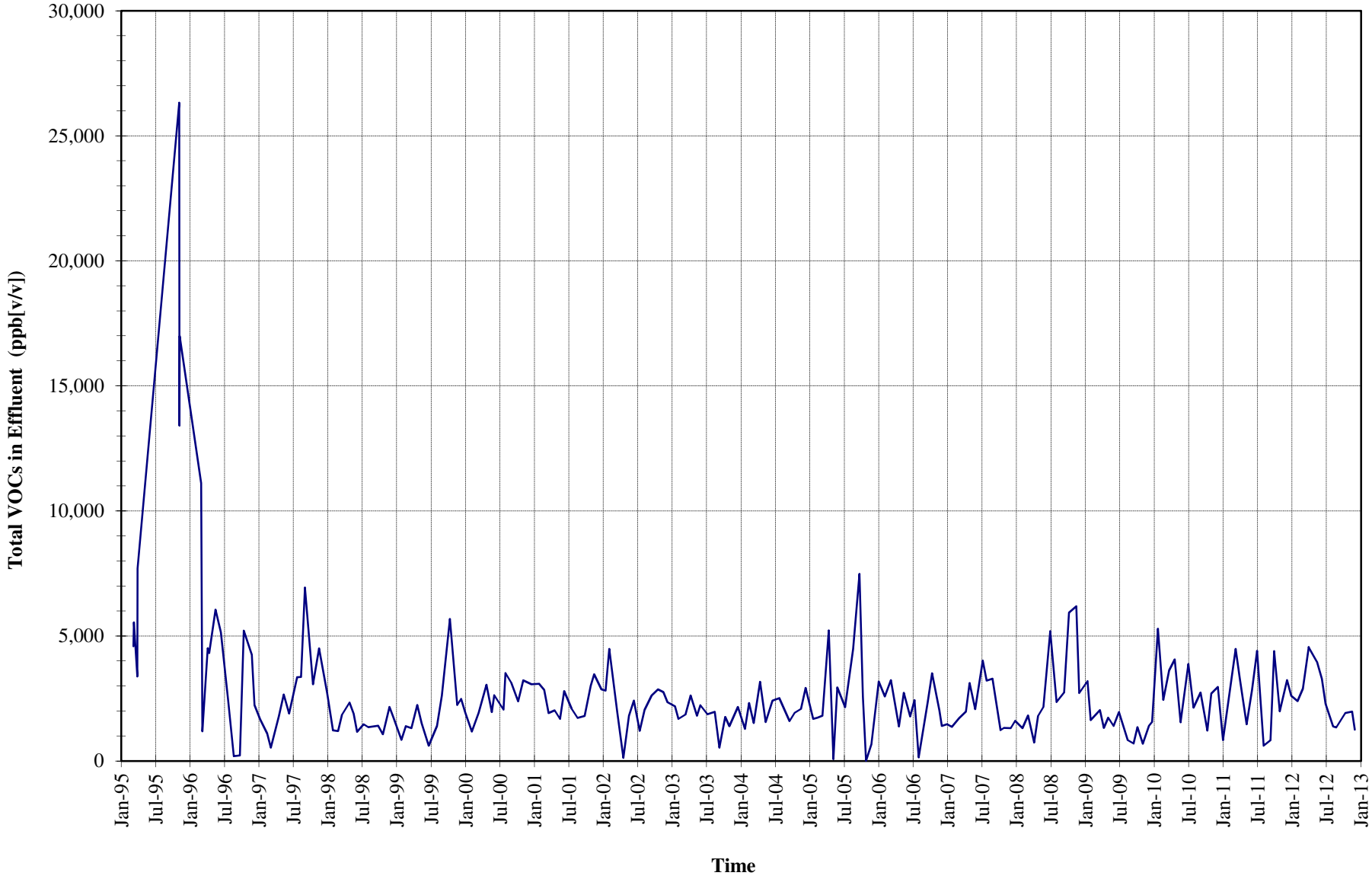


Figure 5
Cumulative and Sustained Groundwater Recovery
Wayne Reclamation & Recycling

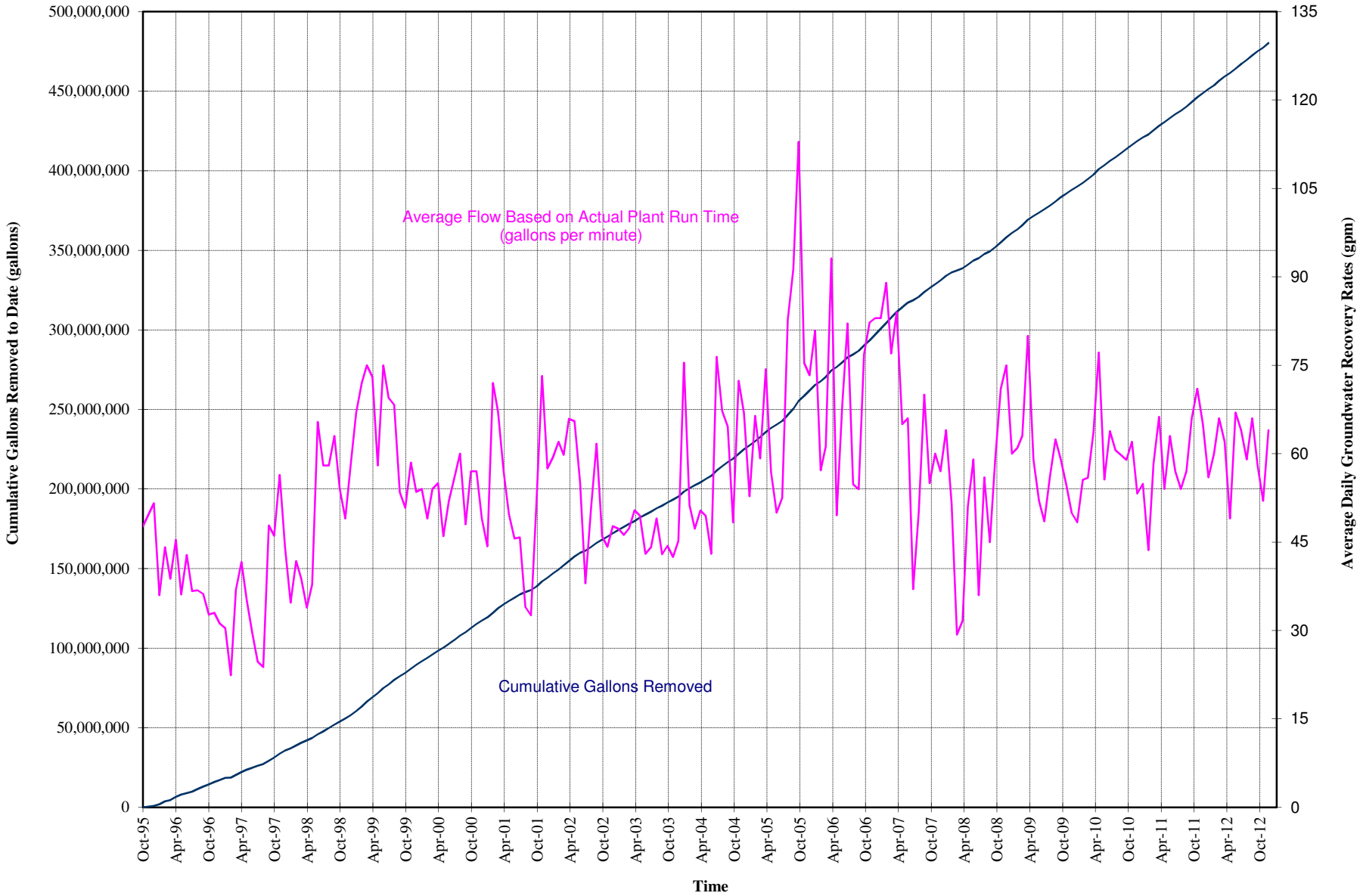
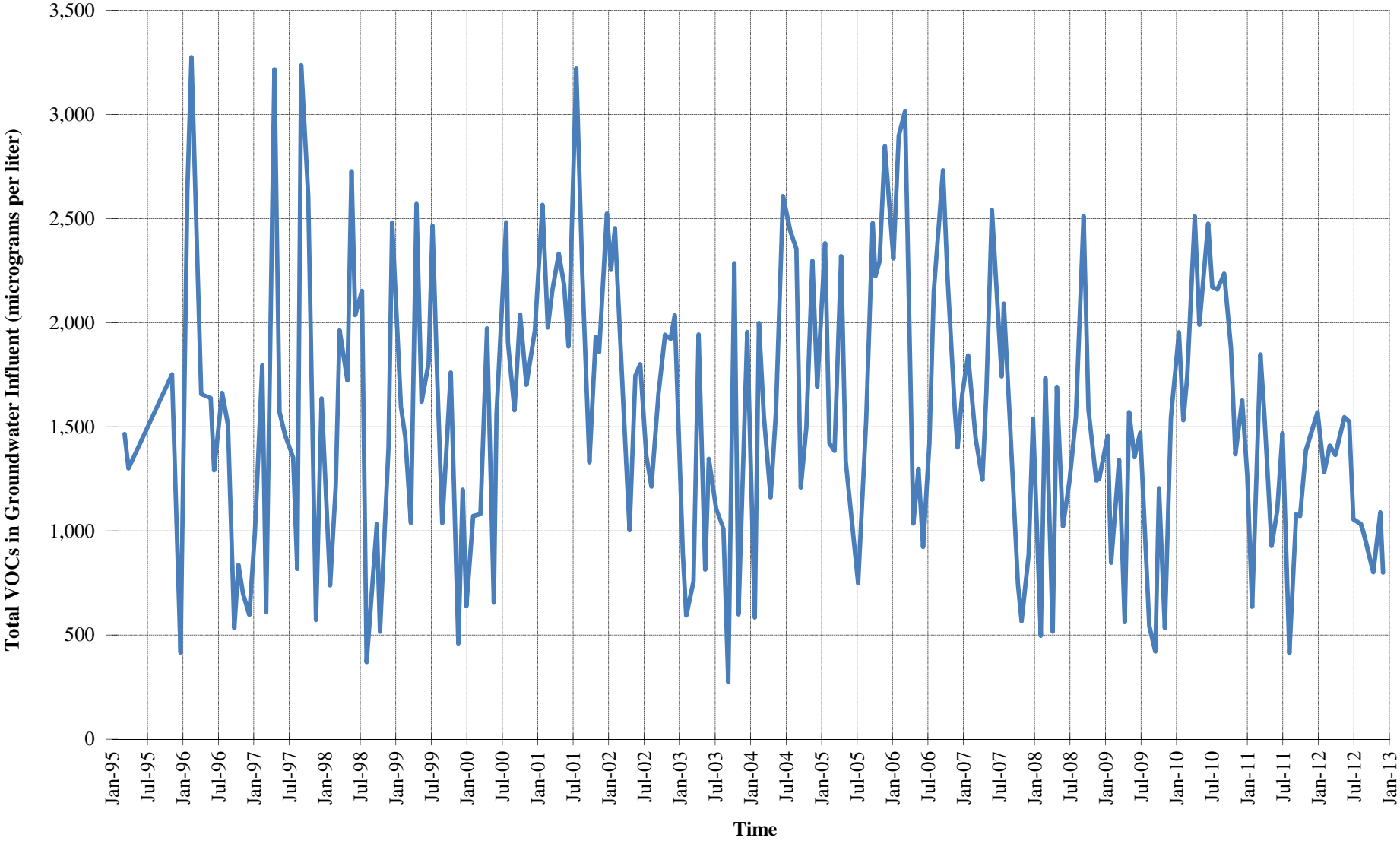


Figure 6
Summary of Groundwater Treatment System Influent Data
Wayne Reclamation & Recycling



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
- —808.75— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.25 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

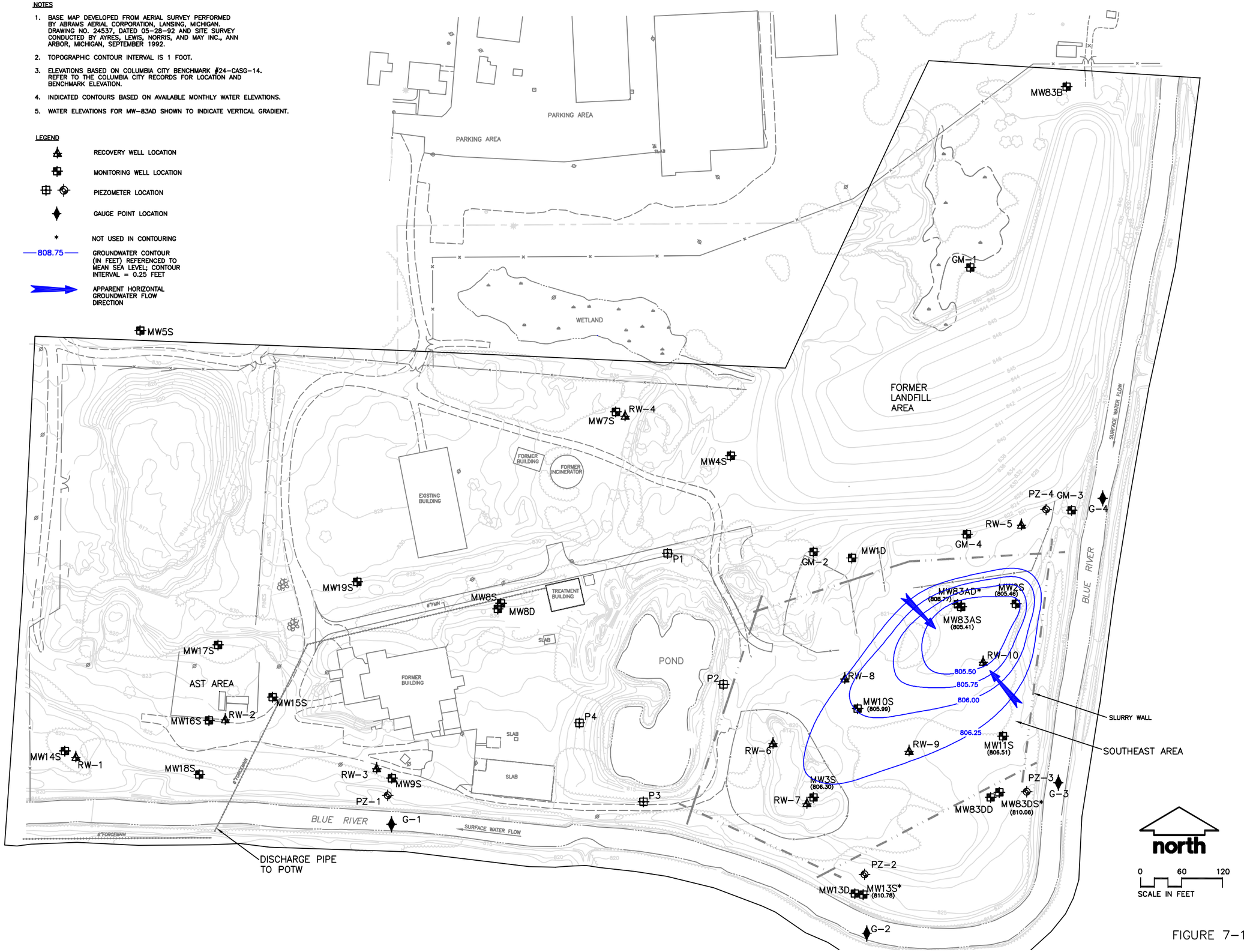


FIGURE 7-1

Releases	Issuance/Revisions	Date	By	Apprvd.

Developed By BRT
Approved By BRT
Drawn By TLP
Date 12/12/2012
Reference
Consultants

GROUNDWATER CONTOURS - JULY 2012

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COLUMBIA CITY, INDIANA

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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.
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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
- —808.75— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.25 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

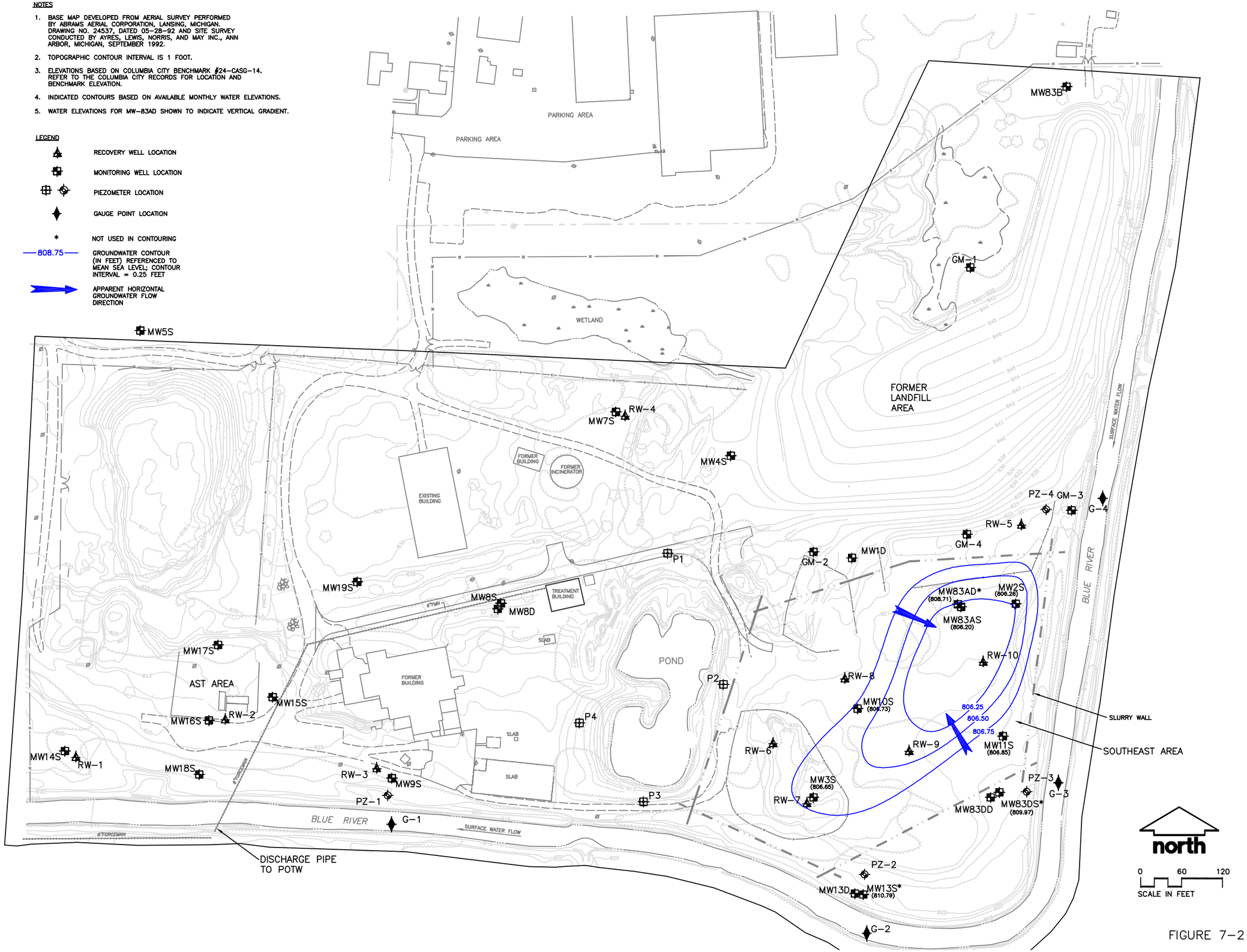

FIGURE 7-2

Developed By	BRT	Drawn By	TLP
Approved By	BRT	Date	12/13/12
Reference			
Consultants			

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GROUNDWATER CONTOURS - AUGUST 2012

SEMI-ANNUAL PROGRESS REPORT 35
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

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1008811
010103 D4

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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
- —806.50— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.50 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

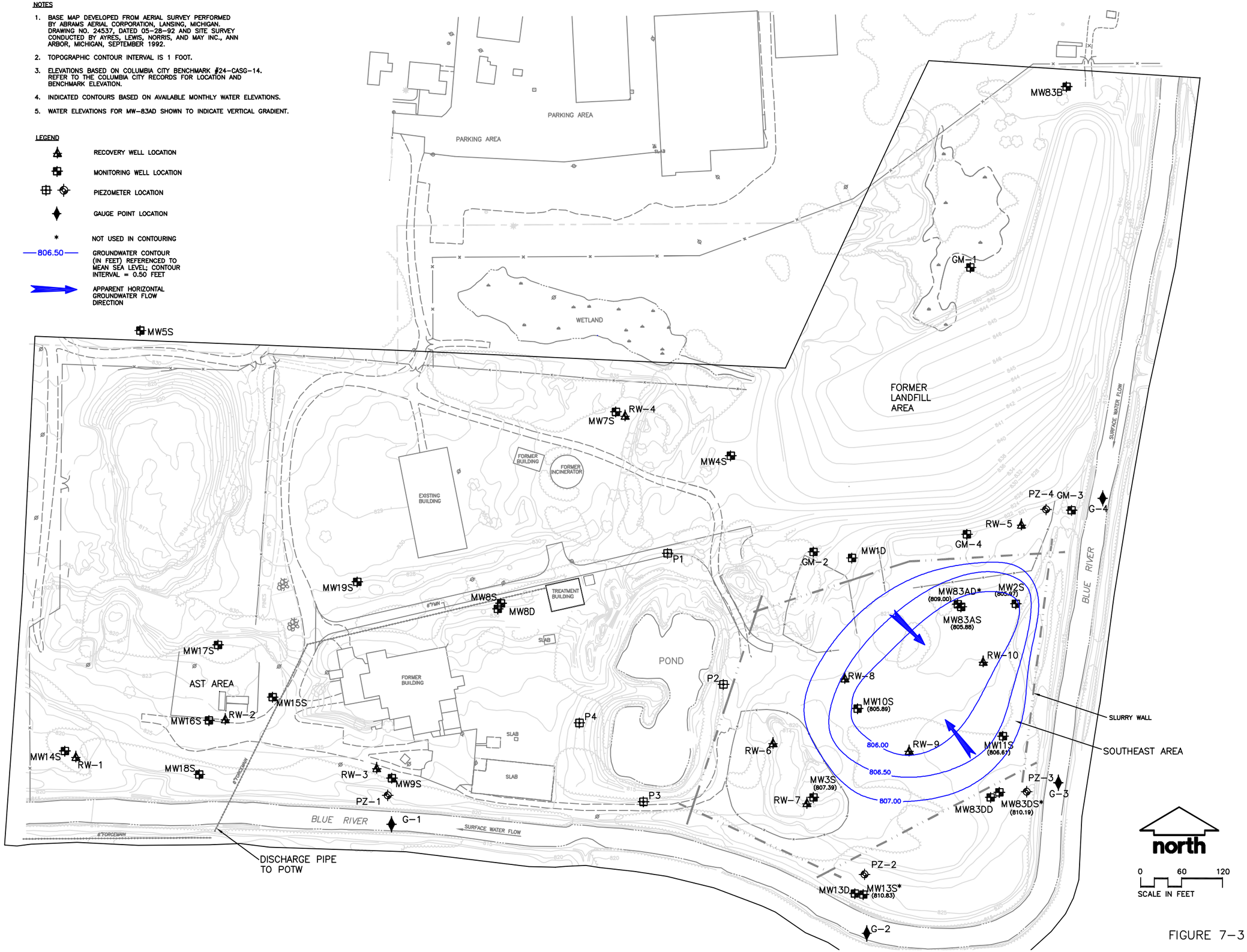

FIGURE 7-3

Developed By	BRT	Drawn By	TLP
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Reference			
Consultants			

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GROUNDWATER CONTOURS - SEPTEMBER 2012

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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
- —809.75— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.25 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

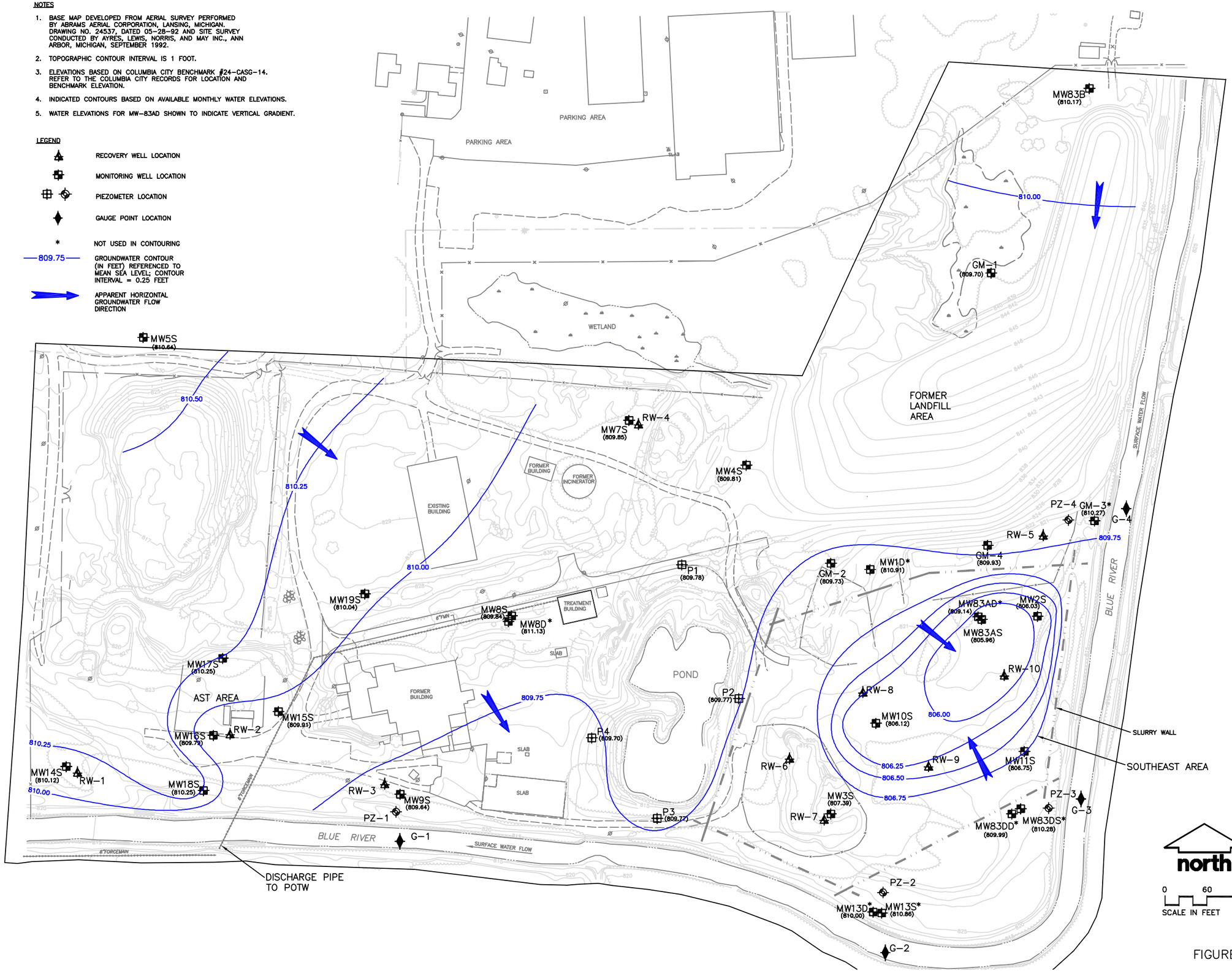

FIGURE 7-4

Developed By	BRT
Approved By	BRT
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GROUNDWATER CONTOURS – October 2012

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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.
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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
- 809.75 GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.25 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

RECOVERY WELL DATA (ug/L)

	RW-1 (Oct 2012)	RW-3 (Oct 2012)	RW-4 (Oct 2012)	RW-5 (Oct 2012)
1,1-DCA	22	ND	ND	ND
1,1-DCE	ND	ND	ND	ND
cis-1,2-DCE	13	75	114	1,100
trans-1,2-DCE	ND	3.0	13	11
1,2-DCP	ND	ND	ND	ND
TCE	1.4	43	1.3	21
VC	6.0	7.6	ND	237
1,1,1-TCA	5.2	3.9	ND	ND
Benzene	ND	ND	ND	1.7

GROUNDWATER TREATMENT SYSTEM INFLUENT (ug/L)

	Jul-12	Aug-12	Sept-12	Oct-12	Nov-12	Dec-12
1,1-DCA	10	11	12	8.9	13	7.8
1,2-DCA	ND	ND	ND	ND	ND	ND
1,1-DCE	2.1	ND	2.0	1.5	ND	2.1
cis-1,2-DCE	700	751	653	546	734	550
trans-1,2-DCE	10	9.7	9.7	9.2	13	9.0
TCE	188	136	181	145	235	161
VC	149	127	131	97	98	72

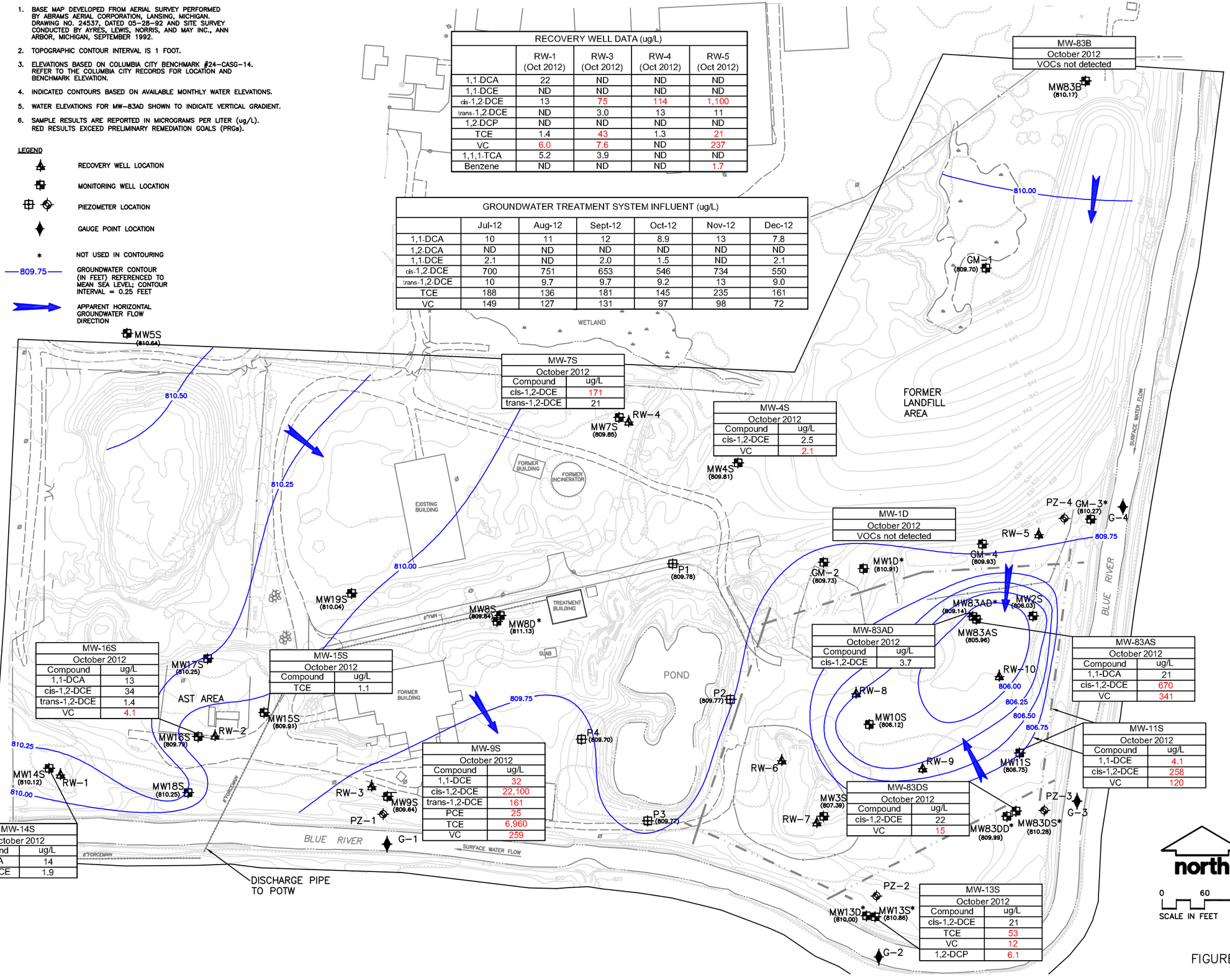

FIGURE 7-5

Releases	Issuance/Revisions	Date	By	Apprvd.

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ANALYTICAL RESULTS SUMMARY - October 2012

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WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

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NOTES

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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
- —808.75— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.25 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

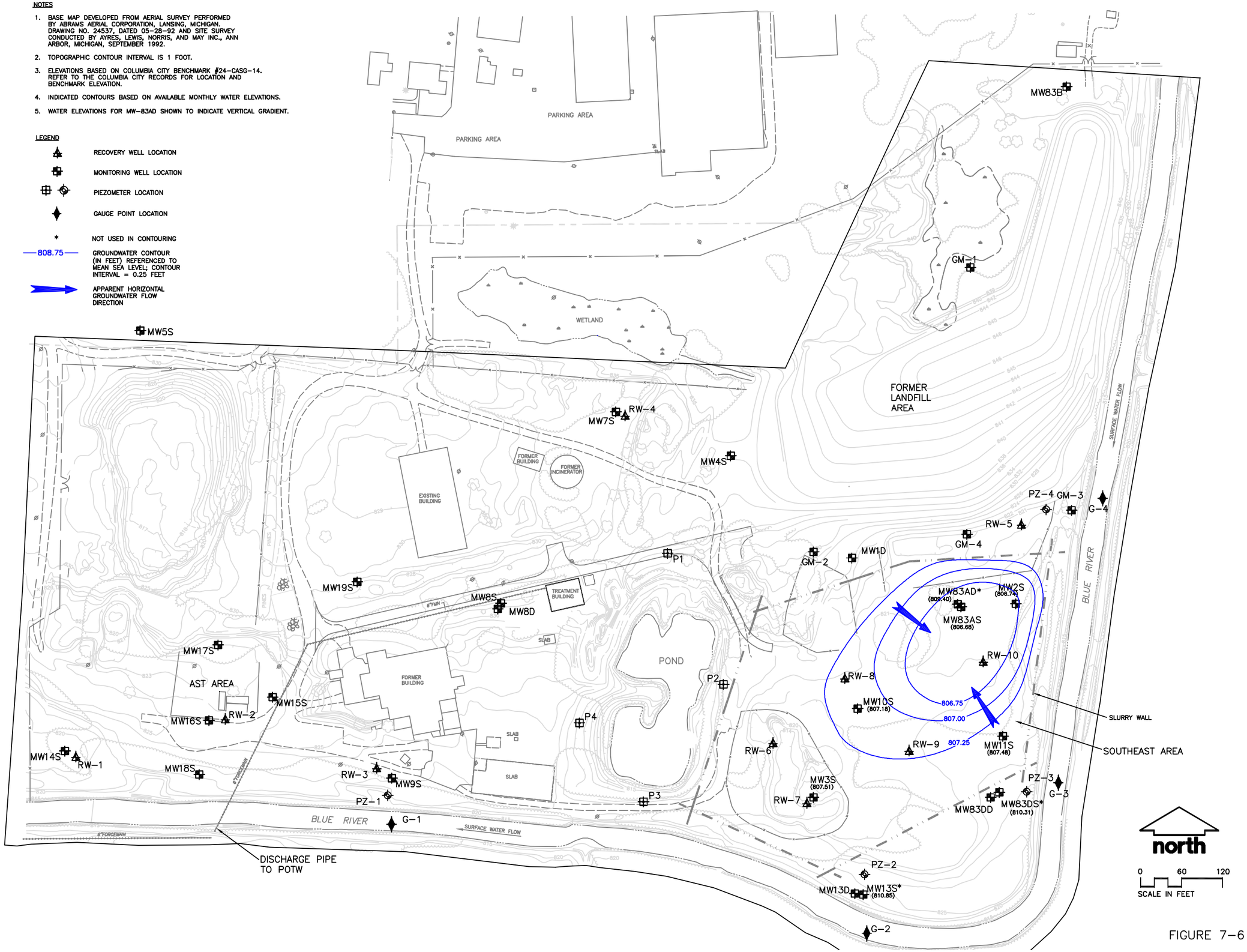

FIGURE 7-6

Releases	Issuance/Revisions	Date	By	Apprvd.

Developed By BRT
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Reference
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GROUNDWATER CONTOURS - NOVEMBER 2012

SEMI-ANNUAL PROGRESS REPORT 35
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

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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.
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4. INDICATED CONTOURS BASED ON AVAILABLE MONTHLY WATER ELEVATIONS.
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LEGEND

- RECOVERY WELL LOCATION
- MONITORING WELL LOCATION
- PIEZOMETER LOCATION
- GAUGE POINT LOCATION
- * NOT USED IN CONTOURING
- —806.75— GROUNDWATER CONTOUR (IN FEET) REFERENCED TO MEAN SEA LEVEL; CONTOUR INTERVAL = 0.25 FEET
- APPARENT HORIZONTAL GROUNDWATER FLOW DIRECTION

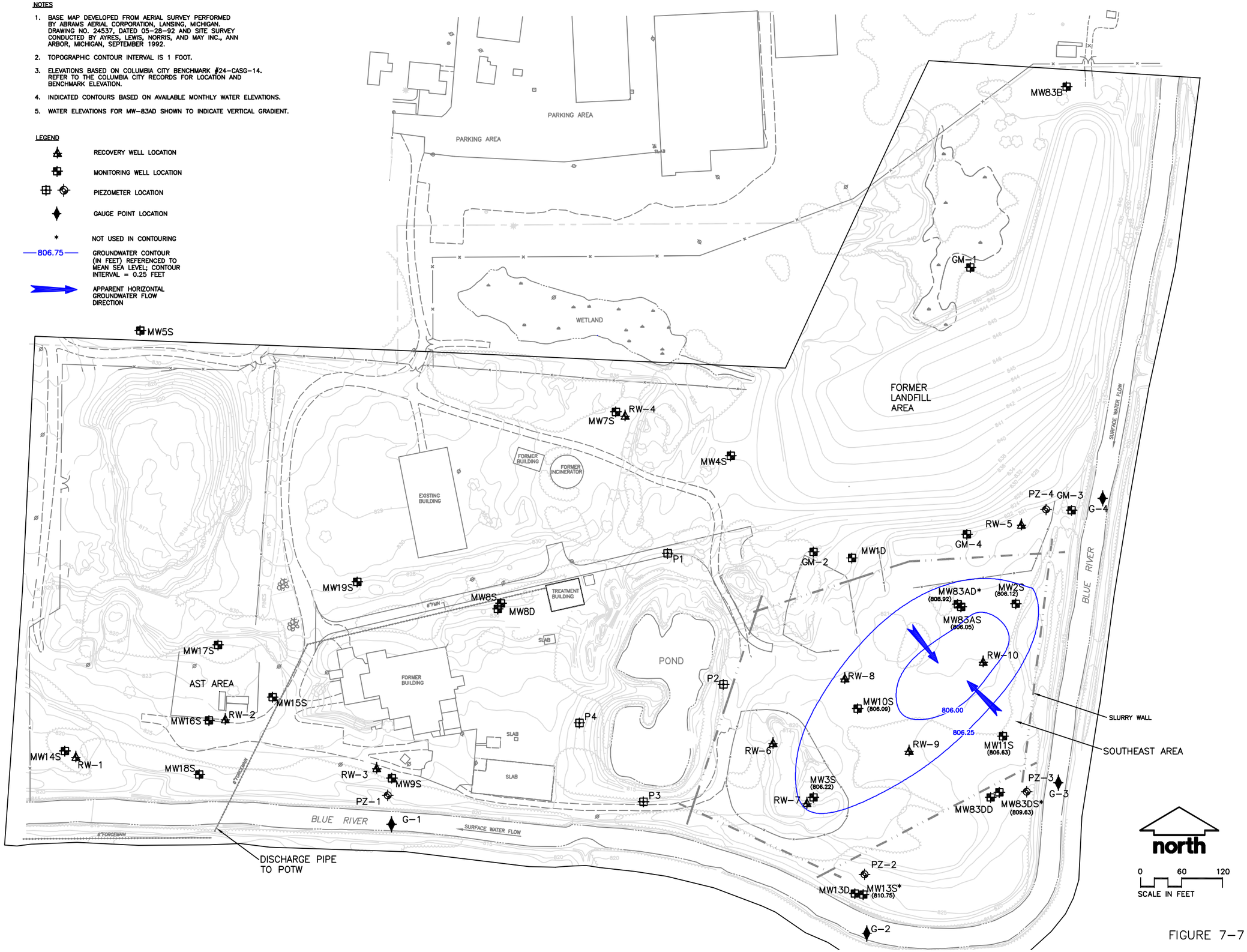

FIGURE 7-7

Releases	Issuance/Revisions	Date	By	Apprvd.

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Approved By BRT
Drawn By TLP
Date 1/15/13
Reference
Consultants

GROUNDWATER CONTOURS - DECEMBER 2012

SEMI-ANNUAL PROGRESS REPORT 35
WAYNE RECLAMATION & RECYCLING, INC.
COLUMBIA CITY, INDIANA

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

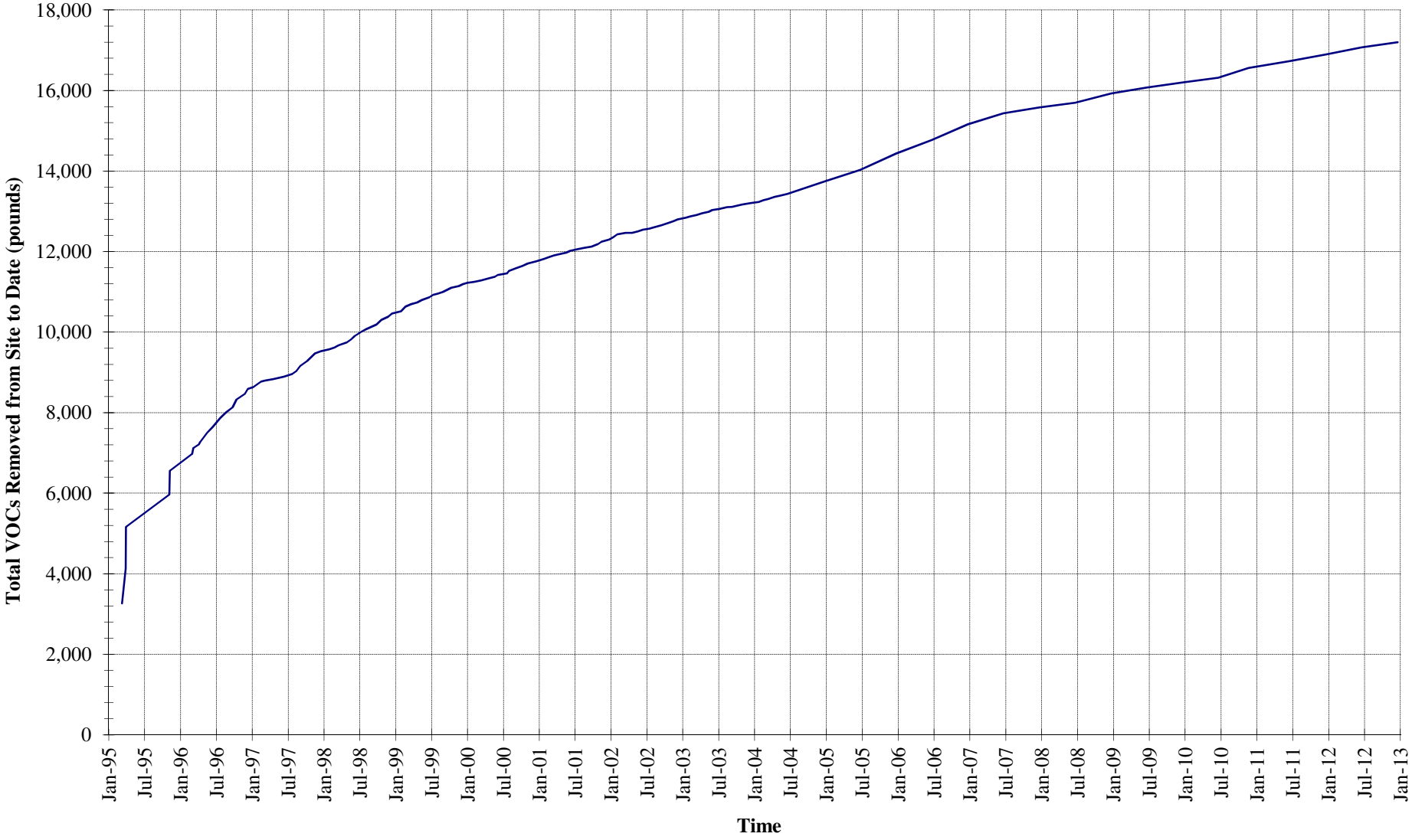
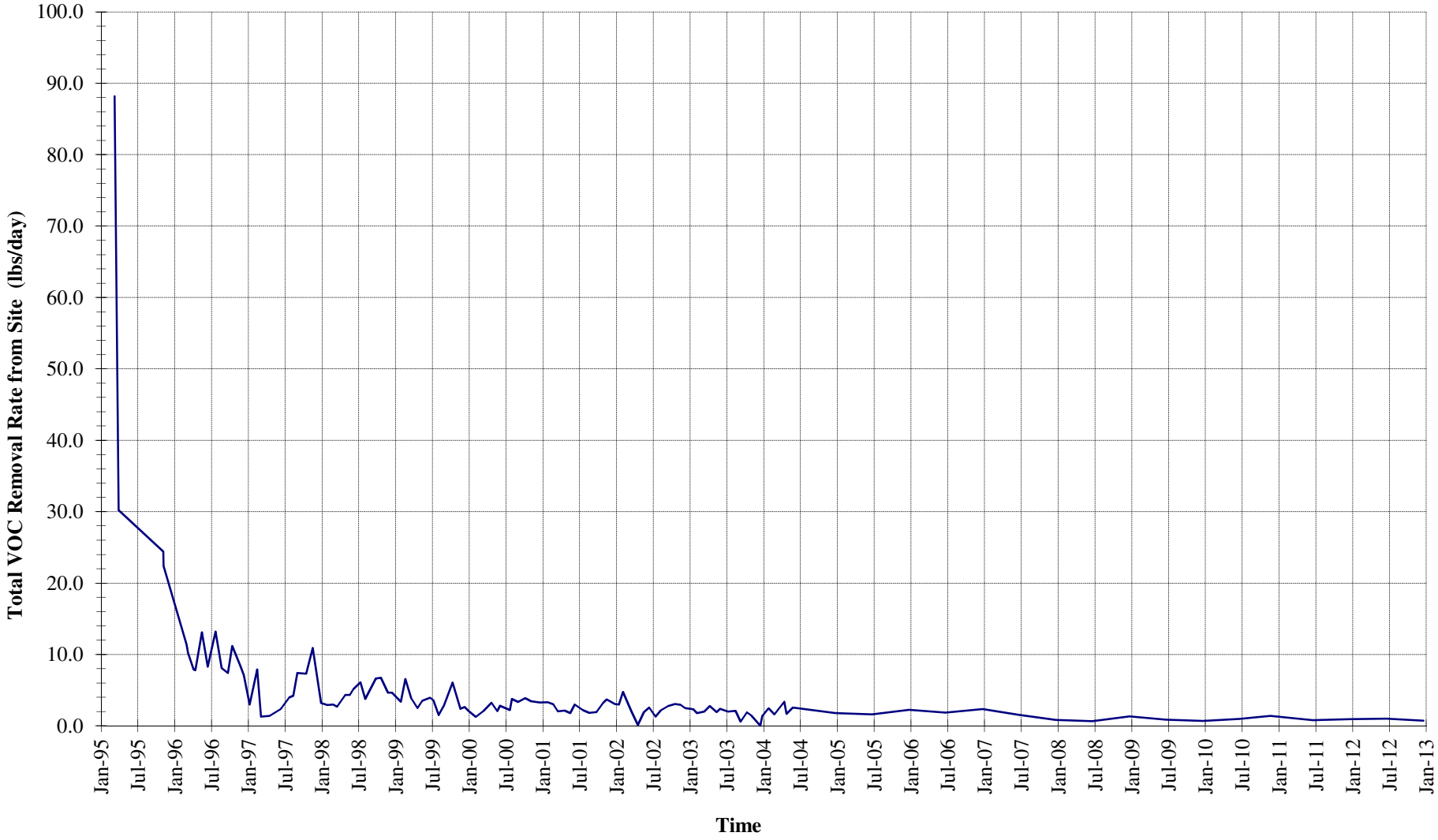


Figure 9
Summary of Site Volatile Organic Compound Removal Rates - Soil and Groundwater Remediation Systems
Wayne Reclamation & Recycling



APPENDIX A

LANDFILL SAMPLING DATA, OCTOBER 2012 SAMPLING EVENT

BURGESS & NIPLE

5085 Reed Road | Columbus, OH 43220 | 614.459.2050

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
October 2012 Groundwater Sampling Event

December 4, 2012

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 October 23, 2012. 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 6 degrees Celsius ($^{\circ}$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 300.0);
- 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 October 23, 2012 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 historically been reported below laboratory detection limits. Carbon disulfide laboratory results were added to Table 1 during the April 2012 monitoring event because concentrations were detected in one or more monitoring wells during two consecutive semiannual monitoring events (October 2011 and April 2012). A concentration of carbon disulfide was not detected in any of the samples analyzed for the October 2012 sampling event. Currently, there is not an established U.S. EPA MCL for carbon disulfide.

All but three 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 ammonia and sodium concentrations of 0.779 milligrams per liter (mg/l) and 7.82 mg/l, respectively, are the lowest detected historical concentrations for GM-2. The chloride concentration of 67.6 mg/l is the highest historical concentration for GM-3.

No VOCs were detected in wells GM-1 and GM-2 during the October 2012 sampling event.

The October 2012 vinyl chloride concentration for GM-3 of <1.00 μg/l matches the lowest historical vinyl chloride concentration reported within this well. All other detected VOCs in GM-3 and GM-4 were within the respective range of historical concentrations.

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. The time-versus-concentration plot for sodium shows a slight increasing trend for GM-3. No other increasing trends in inorganic constituents are evident. A temporary increasing trend for COD in GM-3 was observed

from April 2008 through October 2009. However, COD concentrations within GM-3 show a decreasing trend since October 2009.

It should be noted the VOC laboratory reporting limits for samples GM-4 and GM-Duplicate were elevated during this event because the VOC samples were analyzed at a dilution factor of 5. The elevated reporting limits affect the 2-butanone, 1,1-dichloroethene (1,1-DCE), 1,2-dichloropropane, 1,1,2-trichloroethane (1,1,2-TCA), and carbon disulfide time-versus-concentration plots to show an artificial elevated concentration for GM-4. However, none of the elevated reporting limits are above an established U.S. EPA MCL.

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 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 MCLs:

- GM-3 (cis-1,2-DCE) – since October 2001, concentrations have shown an overall decreasing trend. The October 2012 concentration of 9.75 μg/l is the third lowest concentration reported for this well and is below the primary MCL of 70 μg/l for cis-1,2-DCE.

- GM-3 (vinyl chloride) – historically, 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 and the October 2012 laboratory result of <1.00 μg/l is below the MCL of 2 μg/l.

- 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 238 μg/l reported for October 2012, which is above the primary MCL of 70 μg/l. Concentrations appear to have stabilized since April 2007.

- GM-4 (1,1,1-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 142 μg/l which is below the primary MCL of 200 μg/l. Concentrations of 111-TCA have been below the MCL for the past 10 consecutive semiannual monitoring events.

- GM-4 (trichloroethene [TCE]) – concentrations for the past twelve semiannual sampling events appear to have stabilized as concentrations ranged between 953 μg/l in April 2007 to 786 μg/l in April 2012. The October 2012 TCE concentration of 885 μg/l is above the primary MCL of 5 μg/l for TCE.

- GM-4 (vinyl chloride) – concentrations indicate an increasing trend since October 2005. The October 2012 laboratory result of 48.3 μg/l is the fourth highest concentration reported for this well. The MCL for vinyl chloride is 2 μg/l.

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 decreased between April 2012 and October 2012 from a minimum of 1.27 feet at GM-3 to a maximum of 2.32 feet at both GM-2 and MW-4S.

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

Sincerely,

Michael R. Akins
Project Geologist

MRA:cmc
Attachments
copy: Mr. Mike Cook, Columbia City (w/att)
Ms. Resa Ramsey, Indiana Dept. of Environmental Management (w/att)
Ms. Diane McCausland, Engineering Management, Inc. (w/att)

SOURCES: BUNAE SURVEYORS AND WARZYN ENGINEERING, INC.

GERAGHTY & MILLER, INC.
Environmental Services

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DRAWING NO. 0000-00-00-01 PLOT SCALE: 1=100
DRAWN BY: T. BRANDT DATE: MARCH 5, 1993
CHECKED BY: DATE:
APPROVED BY: DATE:
LAST DRAWN BY: T. BRANDT DATE: OCT. 13, 1993

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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	0.666	0.736	0.686	0.762	0.724
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	55.0	45.1	38.5	46.9	51.1
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	13.2	17.3	22.2	20.8	12.3
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	25.4	23.4	23.2	21.0	21.8
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	<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	<1.00	<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	<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	<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	<1.00	<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	<1.00	<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	<1.00	<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	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	26.6	1.72	<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	<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	<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	6.72	7.13	6.93	7.21	7.06
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	793	696	762	760	885
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	11.8	11.3	12.4	12.2	12.7
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	54.0	51.0	34	77	59

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

			GM-2																																				
Parameter	**Units**	**MCL[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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	1.09	0.920	0.815	0.863	0.779
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	8.35	10.7	7.96	8.80	7.40
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	<10.0	<10.0	15.9	12.6	12.0
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	8.64	8.61	9.46	8.94	7.82
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	<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	<1.00	<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	<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	<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	<1.00	<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	<1.00	<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	<1.00	<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	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.33	<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	<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	<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	6.79	7.10	6.93	7.01	7.09
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	672	683	781	740	846
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	11.7	11.0	12.3	11.7	12.4
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	12.0	8.0	269	23	15

All other VOCs have been historically below laboratory detection limi
[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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	0.489	0.446	0.400	0.390	0.546
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	18.0	35.0	17.3	19.1	67.6
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	23.0	<10.0	11.6	35.3	17.4
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	19.1	29.2	16.4	17.7	33.2
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	<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	<1.00	<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	<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	14.1	8.23	10.7	7.21	9.75
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	<1.00	<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	<1.00	<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	<1.00	<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	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	5.38	<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	<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	12.6	6.74	8.57	6.48	<1.00
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	7.29	7.82	7.54	7.71	7.54
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	547	485	571	489	836
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	15.6	6.60	16.10	9.2	17.6
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	592	1,000	426	828	484

All other VOCs have been historically below laboratory detection limi
[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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	0.269	0.389	0.370	0.277	0.302
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	2.00	1.49	2.49	1.95	5.21
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	16.0	13.8	13.2	<10.0	<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	7.31	8.24	7.58	4.58	9.02
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	<12.5	<12.5	<12.5	<12.5	<62.5
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	14.9	19.9	19.2	15.0	20.3
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	2.61	3.96	3.09	2.64	<5.00
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	122	173	186	143	238
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	8.05	12.1	11.9	9.67	9.50
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	<1.00	<1.00	<1.00	<1.00	<5.00
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	171	172	153	123	142
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	<1.00	<1.00	<1.00	<1.00	<5.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	2.08	<5.00
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	858	940	914	786	885
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	37.4	54.4	67.1	48.9	48.0
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	6.84	7.08	6.97	7.20	7.12
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	686	731	806	574	783
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	12.8	10.1	13.4	11.1	13.8
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	92.0	70.0	35.0	38	41

All other VOCs have been historically below laboratory detection limi
[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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	0.286	0.119	0.336	0.434	0.300
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	2.04	1.48	2.56	1.99	4.96
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	20.2	10.3	14.4	11.0	10.4
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	7.35	8.04	7.81	4.68	8.75
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	<12.5	<12.5	<12.5	<12.5	<62.5
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	18.9	20.4	18.8	15.1	20.4
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	3.10	4.12	3.04	2.66	<5.00
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	147	177	174	142	239
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	9.58	12.60	11.60	9.63	13.8
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	<1.00	<1.00	<1.00	<1.00	<5.00
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	156	173	137	114	140
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	<1.00	<1.00	<1.00	<1.00	<5.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.99	<5.00
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	778	973	843	755	914
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	43.0	55.3	66.7	47.8	48.3
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	6.84	7.08	6.97	7.20	7.12
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	686	731	806	574	783
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	12.8	10.1	13.4	11.1	13.8
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	92.0	70.0	35.0	38	41

All other VOCs have been historically below laboratory detection limi
[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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	0.0720	0.389	0.091	0.171	0.0990
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	<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	<10.0	<10.0	<10.0	<10.0	<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	<1.00	<1.00	<1.00	<1.00	<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	<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	<1.00	<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	<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	<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	<1.00	<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	<1.00	<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	<1.00	<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	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<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	<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	<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 limi
[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	Oct-10	Apr-11	Oct-11	Apr-12	Oct-12
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	<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	<1.00	<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	<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	<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	<1.00	<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	<1.00	<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	<1.00	<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	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon disulfide	ug/l	--	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<2	<10.0	<1.0	<1.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<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	<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	<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 limi
[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
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
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
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
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
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

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
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
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
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
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
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

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
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
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
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
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
MW-4S	842.94	--	--	--	--	3.0	2.6	--	--	--	1.5	2.8	2.7	2.8	2.7	2.7	2.7

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
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
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
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
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
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

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

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

Well No.	TOC Elevation (feet amsl)	Depth to Water (feet BTOC)										
		10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10	10/14/10	4/12/11	10/11/11	4/9/12	10/23/12
GM-1	841.03	31.20	28.01	31.29	27.63	30.62	29.64	31.14	30.86	30.99	29.18	31.33
GM-2	833.24	23.23	19.77	23.43	19.42	22.84	21.70	23.15	22.65	23.19	21.19	23.51
GM-3	822.86	12.61	10.21	12.72	9.41	12.44	9.77	12.54	11.63	12.31	11.32	12.59
GM-4	827.37	17.48	14.76	17.63	13.97	17.24	14.69	17.39	16.59	17.12	15.93	17.44
MW-4S	842.94	32.95	29.51	33.21	29.27	32.56	31.52	32.94	32.56	32.94	30.97	33.29

Well No.	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)										
		10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10	10/14/10	4/12/11	10/11/11	4/9/12	10/23/12
GM-1	841.03	809.83	813.02	809.74	813.40	810.41	811.39	809.89	810.17	810.04	811.85	809.70
GM-2	833.24	810.01	813.47	809.81	813.82	810.40	811.54	810.09	810.59	810.05	812.05	809.73
GM-3	822.86	810.25	812.65	810.14	813.45	810.42	813.09	810.32	811.23	810.55	811.54	810.27
GM-4	827.37	809.89	812.61	809.74	813.40	810.13	812.68	809.98	810.78	810.25	811.44	809.93
MW-4S	842.94	809.99	813.43	809.73	813.67	810.38	811.42	810.00	810.38	810.00	811.97	809.65

Well No.	TOC Elevation (feet amsl)	Well Stick-Up (feet)										
		10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10	10/14/10	4/12/11	10/11/11	4/9/12	10/23/12
GM-1	841.03	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
GM-2	833.24	2.5	2.4	2.4	2.5	2.4	2.4	2.5	2.5	2.5	2.4	2.5
GM-3	822.86	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GM-4	827.37	2.9	2.9	2.9	2.9	3.0	2.9	3.0	2.9	3.0	3.0	3.0
MW-4S	842.94	2.6	2.8	2.8	3.0	2.8	2.8	2.8	2.8	2.9	3.0	3.0

Well No.	TOC Elevation (feet amsl)	Depth-to-Bottom (feet BTOC)										
		10/12/07	4/18/08	10/17/08	4/23/09	10/22/09	4/27/10	10/14/10	4/12/11	10/11/11	4/9/12	10/23/12
GM-1	841.03	34.98	35.00	35.00	35.03	35.06	35.05	35.04	35.05	35.02	35.01	34.97
GM-2	833.24	38.83	38.83	38.84	38.83	38.90	38.89	38.89	38.88	38.88	38.86	38.83
GM-3	822.86	27.67	27.67	27.61	27.65	27.65	27.63	27.63	27.65	27.63	27.63	27.60
GM-4	827.37	27.90	27.90	27.90	27.89	27.93	27.93	27.92	27.92	27.92	27.91	27.88
MW-4S	842.94	40.86	40.85	40.86	40.85	40.90	40.90	40.91	40.90	40.88	40.87	40.84

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: 10-23-12 PROJECT NO.: 51112

FIELD BOOK NO.: N/A WEATHER: Cloudy Overcast Rain Cool 65°

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 ✓

Conductivity Meter: YSI ____ Oakton ✓ Myron L ____

Thermometer: YSI ____ Hanna ____ Oakton ✓

Turbidity: Hach ✓ HF Scientific ____

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

Other: NONE

10-23-12

STATIC WATER LEVEL:

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

Measured Level:	1st	2nd	3rd	Average
Time/Depth:	1105AM / 31.33	1105AM / 31.33	1105AM / 31.33	31.33

Well Bottom: Measured Distance from RP: TD: 34.97 1 WV: .59332 5 WV = 2.9666

PURGING:

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

Time Elapsed During Purging (mins.): 14 Total Gallons Removed During Purging: 4.0 + Gallons

MEASUREMENTS	TIME (IN MINUTES) 1111AM	1114AM	1116AM	1119AM	1121AM	1123AM	1125AM	
Amount of Water Removed (mls.)	1	1.0	1.5	2.0	2.5	3.0	4.0	
pH (S.U.)	7.01	7.02	7.02	7.04	7.05	7.05	7.06	
Conductivity (umhos/cm)	878	891	890	883	883	885	885	
Temperature (°C)	13.1	12.9	12.8	12.8	12.8	12.7	12.7	
Turbidity (NTU)	556	113	79	80	64	62	59	
TDS (ppm)	-	-	-	-	-	-	-	
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	

SAMPLING:

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

Time Sampling Began: 1130AM Time Completed: 1135AM

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 then cleared during Purging

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

WELL NO.: GM-2 DATE: 10-23-12 PROJECT NO.: 51112

FIELD BOOK NO.: N/A WEATHER: Overcast, Very Cloudy Light Rain Cool 65°

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 ✓ 10-23-12

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:	1145AM/23.51	1145AM/23.51	1145AM/23.51	23.51

Well Bottom: Measured Distance from RP: TD: 38.83 1WV: 2.49716 5WV: 12.4858

PURGING:

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

Grundfos Pump ____ Bladder Pump ____ Other ____

Time Elapsed During Purging (mins.): 24 Total Gallons Removed During Purging: 13.04 Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	1153AM	1156AM	1201PM	1203PM	1206PM	1210PM	1214PM	1217PM
Amount of Water Removed (mls.)	1	1.0	3.0	5.0	7.0	9.0	11.0	13.0
pH (S.U.)	7.07	7.07	7.10	7.09	7.10	7.10	7.10	7.09
Conductivity (umhos/cm)	820	836	848	851	851	848	845	846
Temperature (°C)	13.7	12.9	12.7	12.5	12.5	12.5	12.5	12.4
Turbidity (NTU)	390	294	151	40	27	20	16	15
TDS (ppm)	-	-	-	-	-	-	-	-
Dissolved Oxygen (mg/l)	-	-	-	-	-	-	-	-

SAMPLING:

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

Grundfos Pump ____ Bladder Pump ____ Other ____

Time Sampling Began: 1220PM Time Completed: 1230PM

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 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: 10-23-12 PROJECT NO.: 51112

FIELD BOOK NO.: N/A WEATHER: Very Cloudy Breezy Cool 65°

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 ✓ — 10-23-12

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:	226PM/ 12.59	226PM/12.59	226PM/12.59	12.59

Well Bottom: Measured Distance from RP: TD: 27.60 1WV= 2.44663 5WV= 12.23315

PURGING:

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

Time Elapsed During Purging (mins.): 21 Total Gallons Removed During Purging: 13.04 Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	226 PM	230PM	232PM	235PM	238PM	241 PM	244PM	247PM
Amount of Water Removed (mls.)	1	1.0	3.0	5.0	7.0	9.0	12.0	13.0
pH (S.U.)	8.18	7.71	7.55	7.53	7.53	7.53	7.55	7.54
Conductivity (umhos/cm)	597	688	808	838	842	839	837	836
Temperature (°C)	19.0	18.1	17.6	17.5	17.5	17.5	17.6	17.6
Turbidity (NTU)	63	135	183	326	499	547	545	484
TDS (ppm)	–	–	–	–	–	–	–	–
Dissolved Oxygen (mg/l)	–	–	–	–	–	–	–	–

SAMPLING:

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

Time Sampling Began: 250PM Time Completed: 300PM

Characteristics of Water: Odor NONE Color Gray
Turbidity Silty Other NONE

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

REMARKS:

* Equipment Blank Taken at 210PM Before Purging & Sampling this Well.

* Duplicate was Taken at Well

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

WELL NO.: GM-4 DATE: 10-23-12 PROJECT NO.: 51112

FIELD BOOK NO.: N/A WEATHER: Very Cloudy Slight Breeze Cool 65°

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 ✓ 10-23-12

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:	119PM / 17.44	119PM / 17.44	119PM / 17.44	17.44

Well Bottom: Measured Distance from RP: TD: 27.88 1WV: 1.70172 5WV: 8.5086

PURGING:

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

Time Elapsed During Purging (mins.): 16 Total Gallons Removed During Purging: 9.0 Gallons

MEASUREMENTS	TIME (IN MINUTES)							
	127 PM	129 PM	132 PM	134 PM	138 PM	141 PM	143 PM	
Amount of Water Removed (mls.)	I	1.0	3.0	5.0	7.0	8.0	9.0	
pH (S.U.)	7.36	7.13	7.12	7.13	7.14	7.13	7.12	
Conductivity (umhos/cm)	622	762	788	784	785	782	783	
Temperature (°C)	15.3	14.2	13.9	13.9	13.8	13.8	13.8	
Turbidity (NTU)	76	95	83	45	36	37	41	
TDS (ppm)	–	–	–	–	–	–	–	
Dissolved Oxygen (mg/l)	–	–	–	–	–	–	–	

SAMPLING:

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

Time Sampling Began: 145 PM Time Completed: 155 PM

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

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

REMARKS:

DVJ0989

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: Job # 51112

Client Email: michael.akins@burgessniple.com

Project No & ID: Wayne RRF - Columbia City, Indiana 51112

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	10/23/12	1130AM	6	x			1	3			1	1			x	x	x	x	x	x			x	x	x	x	12.7	7.06	885	59
GM-2		1220PM	6	x			1	3			1	1			x	x	x	x	x	x							12.4	7.09	846	15
GM-3		250PM	6	x			1	3			1	1			x	x	x	x	x	x							17.6	7.54	836	484
GM-4		145PM	6	x			1	3			1	1			x	x	x	x	x	x							13.8	7.12	783	41
GM-Duplicate		-	6	x			1	3			1	1			x	x	x	x	x	x										
Equipment Blank		210PM	6	x			1	3			1	1			x	x	x	x	x	x										
Trip Blank	10/23/12	-	3	x				3							x	x														

Special Instructions:

Shipped to lab via courier under custody seal.

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	10/24/12	4:00pm			
Relinquished by:	**Date**	**Time**	**Received by TestAmerica:**	**Date**	**Time**
			[illegible]	10-24-12	1730

Laboratory Comments:

Temperature Upon Receipt: 0.4

VOCs Free of Headspace? Y N NA

Sample Containers Intact? Y N

TestAmerica Dayton

WORK ORDER

DVJ0989

Preservation Confirmation

LabNumber	Designator	Container	pH	pH adjustment Information (leave blank if not adjusted)
DVJ0989-01	A	250 mL Plastic HNO3	pH > 2 pH<2	
DVJ0989-02	A	250 mL Plastic HNO3	pH > 2 pH<2	
DVJ0989-03	A	250 mL Plastic HNO3	pH > 2 pH<2	
DVJ0989-04	A	250 mL Plastic HNO3	pH > 2 pH<2	
DVJ0989-05	A	250 mL Plastic HNO3	pH > 2 pH<2	
DVJ0989-06	A	250 mL Plastic HNO3	pH > 2 pH<2	

Preservation Check By: Jen Tutalo Date: 10/25/12

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 Burgess
☐ Short Hold Work Order # DUJ0989
☐ Rush ☐24hr ☐2day ☐3day ☐5day ☐other
Receipt evaluation performed by - Initials: Date: 10.24.12 Time: 1730

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

Shipping Container Type:
☑ Cooler ☐ Box
☐ None ☐ Other
Packing Materials:
☑ Plastic Bags ☐ Foam
☐ Bubble Wrap ☐ Paper
☐ Packing Peanuts ☐ None
☐ Other

Custody Seals Intact:
☑ Yes ☐ No
☐ N/A (not used or required)
Cooling Materials:
☑ Ice *(solid)* ☐ Ice *(Melted)*
☐ Blue 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 ☐ **Check If Additional Sheets Required**

Thermometer ID	Observed (°C)	Corrected (°C)	Temp Blank	Sample Temp	Received on same day sampled?	Acceptable?*	Cooler ID	Note Affected Samples if temperature not acceptable
H	0.4	0.4	☑	☐	☐Yes ☑No	☑Yes ☐No		
			☐	☐	☐Yes ☐No	☐Yes ☐No		
			☐	☐	☐Yes ☐No	☐Yes ☐No		

* Receipt temperatures are considered acceptable if the samples are received on the same day they were collected & show signs that the cooling process has started. Temperature acceptance for most tests is ≤6.0°C, but not frozen. For additional information, please refer to SOP DT-SCA-004 ***Sample Receipt and Login, Attachment 2 – Holding Times, Preservation and Container Requirements.***

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?	✓			
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?	✓			

** 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.

10/26/12
Reviewed by PM Signature Date

WI Page___of___

WI No. DT-SCA-WI-001.9
effective 10/18/10

ATTACHMENT 2

LABORATORY REPORT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4738 Gateway Circle Dayton, OH 45440 (800) 572-9839
Michigan Service Center 10448 Citation Drive, Suite 200 Brighton, MI 48116

November 08, 2012

Client:

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

Attn: Michael Akins

Work Order: DVJ0989
Project Name: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Date Received: 10/24/12

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	DVJ0989-01	10/23/12 11:30
GM-2	DVJ0989-02	10/23/12 12:20
GM-3	DVJ0989-03	10/23/12 14:50
GM-4	DVJ0989-04	10/23/12 13:45
GM-Duplicate	DVJ0989-05	10/23/12
Equipment Blank	DVJ0989-06	10/23/12 14:10
Trip Blank	DVJ0989-07	10/23/12

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:

This report has been electronically signed.

TestAmerica Dayton
Josh McKinney
Department Manager

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-01 (GM-1 - Water - NonPotable)					**Sampled: 10/23/12 11:30**			**Recvd: 10/24/12 17:30**	
Client Supplied Field Data									
pH	**7.06**		S.U.	0.10	1	10/23/12 11:30	PRB	12J1160	NA
Specific Conductance	**885**		umhos/cm	10	1	10/23/12 11:30	PRB	12J1160	NA
Temperature	**12.7**		°C	0.100	1	10/23/12 11:30	PRB	12J1160	NA
Turbidity - Client Supplied	**59.0**		NTU	NA	1	10/23/12 11:30	PRB	12J1160	NA
General Chemistry Parameters									
Ammonia, Undistilled as N	**0.724**		mg/L	0.0500	1	10/29/12 12:43	KKH	12J1175	EPA 350.1/SM18 4500 NH3 G
Chemical Oxygen Demand	**12.3**		mg/L	10.0	1	10/25/12 19:00	MLR	12J1069	Hach 8000
Chloride	**51.1**		mg/L	1.00	1	10/25/12 15:23	RLM	12J1060	EPA 300.0
Total Metals									
Sodium	**21.8**		mg/L	1.00	1	10/29/12 13:06	MJW	12J1106	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Benzene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-01 (GM-1 - Water - NonPotable) - cont.					**Sampled: 10/23/12 11:30**			**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	10/29/12 19:27	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*106 %*					10/29/12 19:27	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*115 %*					10/29/12 19:27	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*83 %*					10/29/12 19:27	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*109 %*					10/29/12 19:27	jdt	12J1227	SW 8260B

Burgess & Niple (Landfill)
5085 Reed Rd.
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Michael Akins

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
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Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-02 (GM-2 - Water - NonPotable)					**Sampled: 10/23/12 12:20**			**Recvd: 10/24/12 17:30**	
Client Supplied Field Data									
pH	**7.09**		S.U.	0.10	1	10/23/12 12:20	PRB	12J1160	NA
Specific Conductance	**846**		umhos/cm	10	1	10/23/12 12:20	PRB	12J1160	NA
Temperature	**12.4**		°C	0.100	1	10/23/12 12:20	PRB	12J1160	NA
Turbidity - Client Supplied	**15.0**		NTU	NA	1	10/23/12 12:20	PRB	12J1160	NA
General Chemistry Parameters									
Ammonia, Undistilled as N	**0.779**		mg/L	0.0500	1	10/29/12 12:43	KKH	12J1175	EPA 350.1/SM18 4500 NH3 G
Chemical Oxygen Demand	**12.0**		mg/L	10.0	1	10/25/12 19:00	MLR	12J1069	Hach 8000
Chloride	**7.40**		mg/L	1.00	1	10/25/12 15:59	RLM	12J1060	EPA 300.0
Total Metals									
Sodium	**7.82**		mg/L	1.00	1	10/29/12 13:09	MJW	12J1106	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Benzene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-02 (GM-2 - Water - NonPotable) - cont.					**Sampled:**	**10/23/12 12:20**		**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	10/29/12 19:50	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*92 %*					10/29/12 19:50	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*105 %*					10/29/12 19:50	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*89 %*					10/29/12 19:50	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*105 %*					10/29/12 19:50	jdt	12J1227	SW 8260B

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Michigan Service Center 10448 Citation Drive, Suite 200 Brighton, MI 48116

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-03 (GM-3 - Water - NonPotable)					**Sampled: 10/23/12 14:50**			**Recvd: 10/24/12 17:30**	
Client Supplied Field Data									
pH	**7.54**		S.U.	0.10	1	10/23/12 14:50	PRB	12J1160	NA
Specific Conductance	**836**		umhos/cm	10	1	10/23/12 14:50	PRB	12J1160	NA
Temperature	**17.6**		°C	0.100	1	10/23/12 14:50	PRB	12J1160	NA
Turbidity - Client Supplied	**484**		NTU	NA	1	10/23/12 14:50	PRB	12J1160	NA
General Chemistry Parameters									
Ammonia, Undistilled as N	**0.546**		mg/L	0.0500	1	10/29/12 12:43	KKH	12J1175	EPA 350.1/SM18 4500 NH3 G
Chemical Oxygen Demand	**17.4**		mg/L	10.0	1	10/25/12 19:00	MLR	12J1069	Hach 8000
Chloride	**67.6**		mg/L	1.00	1	10/25/12 16:17	RLM	12J1060	EPA 300.0
Total Metals									
Sodium	**33.2**		mg/L	1.00	1	10/29/12 13:19	MJW	12J1106	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Benzene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	**9.75**		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
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ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-03 (GM-3 - Water - NonPotable) - cont.					**Sampled: 10/23/12 14:50**			**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	10/29/12 20:14	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*102 %*					10/29/12 20:14	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*107 %*					10/29/12 20:14	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*85 %*					10/29/12 20:14	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*106 %*					10/29/12 20:14	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-04 (GM-4 - Water - NonPotable)					**Sampled: 10/23/12 13:45**			**Recvd: 10/24/12 17:30**	
Client Supplied Field Data									
pH	**7.12**		S.U.	0.10	1	10/23/12 13:45	PRB	12J1160	NA
Specific Conductance	**783**		umhos/cm	10	1	10/23/12 13:45	PRB	12J1160	NA
Temperature	**13.8**		°C	0.100	1	10/23/12 13:45	PRB	12J1160	NA
Turbidity - Client Supplied	**41.0**		NTU	NA	1	10/23/12 13:45	PRB	12J1160	NA
General Chemistry Parameters									
Ammonia, Undistilled as N	**0.302**		mg/L	0.0500	1	10/29/12 12:43	KKH	12J1175	EPA 350.1/SM18 4500 NH3 G
Chemical Oxygen Demand	<10.0		mg/L	10.0	1	10/25/12 19:00	MLR	12J1069	Hach 8000
Chloride	**5.21**		mg/L	1.00	1	10/25/12 16:34	RLM	12J1060	EPA 300.0
Total Metals									
Sodium	**9.02**		mg/L	1.00	1	10/29/12 13:23	MJW	12J1106	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<100	RL7	ug/L	100	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Acrylonitrile	<250	RL7	ug/L	250	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Benzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Bromochloromethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Bromoform	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<62.5	RL7	ug/L	62.5	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Carbon disulfide	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Carbon tetrachloride	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Chlorobenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Chloroethane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Chloroform	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Dibromomethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,1-Dichloroethane	**20.3**	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	**238**	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	**9.50**	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-04 (GM-4 - Water - NonPotable) - cont.					**Sampled:**	**10/23/12 13:45**		**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
Ethylbenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
2-Hexanone	<50.0	RL7	ug/L	50.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Iodomethane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Methylene chloride	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
4-Methyl-2-pentanone (MIBK)	<62.5	RL7	ug/L	62.5	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Styrene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Tetrachloroethene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Toluene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	**142**	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,1,2-Trichloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Trichloroethene	**885**		ug/L	20.0	20	10/30/12 23:26	jdt	12J1262	SW 8260B
Trichlorofluoromethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Vinyl Acetate	<25.0	RL7	ug/L	25.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Vinyl chloride	**48.0**	RL7	ug/L	5.00	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Xylenes, Total	<10.0	RL7	ug/L	10.0	5	10/29/12 21:47	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*94 %*	*RL7*				10/29/12 21:47	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*84 %*					10/30/12 23:26	jdt	12J1262	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*104 %*	*RL7*				10/29/12 21:47	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*97 %*					10/30/12 23:26	jdt	12J1262	SW 8260B
Surr: Toluene-d8 (80-120%)	*89 %*	*RL7*				10/29/12 21:47	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*99 %*					10/30/12 23:26	jdt	12J1262	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*105 %*	*RL7*				10/29/12 21:47	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*104 %*					10/30/12 23:26	jdt	12J1262	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-05 (GM-Duplicate - Water - NonPotable)					**Sampled: 10/23/12**			**Recvd: 10/24/12 17:30**	
General Chemistry Parameters									
Ammonia, Undistilled as N	**0.300**		mg/L	0.0500	1	10/29/12 12:43	KKH	12J1175	EPA 350.1/SM18 4500 NH3 G
Chemical Oxygen Demand	**10.4**		mg/L	10.0	1	10/25/12 19:00	MLR	12J1069	Hach 8000
Chloride	**4.96**		mg/L	1.00	1	10/25/12 16:52	RLM	12J1060	EPA 300.0
Total Metals									
Sodium	**8.75**		mg/L	1.00	1	10/29/12 13:26	MJW	12J1106	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<100	RL7	ug/L	100	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Acrylonitrile	<250	RL7	ug/L	250	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Benzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Bromochloromethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Bromoform	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<62.5	RL7	ug/L	62.5	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Carbon disulfide	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Carbon tetrachloride	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Chlorobenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Chloroethane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Chloroform	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Dibromomethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,1-Dichloroethane	**20.4**	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	**239**	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	**13.8**	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Ethylbenzene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
2-Hexanone	<50.0	RL7	ug/L	50.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Iodomethane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Methylene chloride	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DVJ0989		Received:	10/24/12
5085 Reed Rd.	Project:	Wayne RRF - Columbia City, Indiana		Reported:	11/08/12 16:13
Columbus, OH 43220	Project Number:	51112			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-05 (GM-Duplicate - Water - NonPotable) - cont.					**Sampled: 10/23/12**			**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
4-Methyl-2-pentanone (MIBK)	<62.5	RL7	ug/L	62.5	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Styrene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Tetrachloroethene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Toluene	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	**140**	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,1,2-Trichloroethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Trichloroethene	**914**		ug/L	20.0	20	10/30/12 23:03	jdt	12J1262	SW 8260B
Trichlorofluoromethane	<5.00	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Vinyl Acetate	<25.0	RL7	ug/L	25.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Vinyl chloride	**48.3**	RL7	ug/L	5.00	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Xylenes, Total	<10.0	RL7	ug/L	10.0	5	10/29/12 21:23	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*93 %*	*RL7*				10/29/12 21:23	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*85 %*					10/30/12 23:03	jdt	12J1262	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*104 %*	*RL7*				10/29/12 21:23	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*97 %*					10/30/12 23:03	jdt	12J1262	SW 8260B
Surr: Toluene-d8 (80-120%)	*90 %*	*RL7*				10/29/12 21:23	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*99 %*					10/30/12 23:03	jdt	12J1262	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*105 %*	*RL7*				10/29/12 21:23	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*101 %*					10/30/12 23:03	jdt	12J1262	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-06 (Equipment Blank - Water - NonPotable)					**Sampled: 10/23/12 14:10**			**Recvd: 10/24/12 17:30**	
General Chemistry Parameters									
Ammonia, Undistilled as N	**0.0990**		mg/L	0.0500	1	10/29/12 12:43	KKH	12J1175	EPA 350.1/SM18 4500 NH3 G
Chemical Oxygen Demand	<10.0		mg/L	10.0	1	10/25/12 19:00	MLR	12J1069	Hach 8000
Chloride	<1.00		mg/L	1.00	1	10/25/12 17:10	RLM	12J1060	EPA 300.0
Total Metals									
Sodium	<1.00		mg/L	1.00	1	10/29/12 13:29	MJW	12J1106	SW 6010B
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Benzene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-06 (Equipment Blank - Water - NonPotable) - cont.					**Sampled:**	**10/23/12 14:10**		**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Toluene	**1.93**		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	10/29/12 20:37	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*91 %*					10/29/12 20:37	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*103 %*					10/29/12 20:37	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*88 %*					10/29/12 20:37	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*106 %*					10/29/12 20:37	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-07 (Trip Blank - Water - NonPotable)					**Sampled: 10/23/12**			**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS									
Acetone	<20.0		ug/L	20.0	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Acrylonitrile	<50.0		ug/L	50.0	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Benzene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Bromochloromethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Bromodichloromethane (Dichlorobromomethane)	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Bromoform	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Bromomethane (Methyl bromide)	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
2-Butanone (MEK)	<12.5		ug/L	12.5	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Carbon disulfide	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Carbon tetrachloride	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Chlorobenzene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Chloroethane	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Chloroform	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Chloromethane (Methyl chloride)	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Dibromochloromethane (Chlorodibromomethane)	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,2-Dibromo-3-chloropropane	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,2-Dibromoethane (EDB)	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Dibromomethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
trans-1,4-Dichloro-2-butene	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,2-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,4-Dichlorobenzene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,1-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,2-Dichloroethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
cis-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
trans-1,2-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,1-Dichloroethene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,2-Dichloropropane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
cis-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
trans-1,3-Dichloropropene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Ethylbenzene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Hexachlorobutadiene	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
2-Hexanone	<10.0		ug/L	10.0	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Iodomethane	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Methylene chloride	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
4-Methyl-2-pentanone (MIBK)	<12.5		ug/L	12.5	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Styrene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,1,1,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,1,2,2-Tetrachloroethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Tetrachloroethene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Toluene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,1,1-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B

Burgess & Niple (Landfill)	Work Order:	DVJ0989		Received:	10/24/12
5085 Reed Rd.	Project:	Wayne RRF - Columbia City, Indiana		Reported:	11/08/12 16:13
Columbus, OH 43220	Project Number:	51112			
Michael Akins					

ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	RL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
Sample ID: DVJ0989-07 (Trip Blank - Water - NonPotable) - cont.					**Sampled: 10/23/12**			**Recvd: 10/24/12 17:30**	
Volatile Organic Compounds by GC/MS - cont.									
1,1,2-Trichloroethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Trichloroethene	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Trichlorofluoromethane	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
1,2,3-Trichloropropane	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Vinyl Acetate	<5.00		ug/L	5.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Vinyl chloride	<1.00		ug/L	1.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Xylenes, Total	<2.00		ug/L	2.00	1	10/29/12 21:00	jdt	12J1227	SW 8260B
Surr: 1,2-Dichloroethane-d4 (80-120%)	*94 %*					10/29/12 21:00	jdt	12J1227	SW 8260B
Surr: Dibromofluoromethane (80-120%)	*104 %*					10/29/12 21:00	jdt	12J1227	SW 8260B
Surr: Toluene-d8 (80-120%)	*89 %*					10/29/12 21:00	jdt	12J1227	SW 8260B
Surr: 4-Bromofluorobenzene (80-120%)	*103 %*					10/29/12 21:00	jdt	12J1227	SW 8260B

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

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														
Chloride	12J1060			mg/L	N/A	1.00	<1.00							
Chemical Oxygen Demand	12J1069			mg/L	N/A	10.0	<10.0							
Ammonia, Undistilled as N	12J1175			mg/L	N/A	0.0500	<0.0500							
Total Metals														
Sodium	12J1106			mg/L	N/A	1.00	<1.00							
Volatile Organic Compounds by GC/MS														
Acetone	12J1227			ug/L	N/A	20.0	<20.0							
Acrylonitrile	12J1227			ug/L	N/A	50.0	<50.0							
Benzene	12J1227			ug/L	N/A	1.00	<1.00							
Bromochloromethane	12J1227			ug/L	N/A	1.00	<1.00							
Bromodichloromethane (Dichlorobromomethane)	12J1227			ug/L	N/A	1.00	<1.00							
Bromoform	12J1227			ug/L	N/A	1.00	<1.00							
Bromomethane (Methyl bromide)	12J1227			ug/L	N/A	5.00	<5.00							
2-Butanone (MEK)	12J1227			ug/L	N/A	12.5	<12.5							
Carbon disulfide	12J1227			ug/L	N/A	1.00	<1.00							
Carbon tetrachloride	12J1227			ug/L	N/A	1.00	<1.00							
Chlorobenzene	12J1227			ug/L	N/A	1.00	<1.00							
Chloroethane	12J1227			ug/L	N/A	5.00	<5.00							
Chloroform	12J1227			ug/L	N/A	1.00	<1.00							
Chloromethane (Methyl chloride)	12J1227			ug/L	N/A	5.00	<5.00							
Dibromochloromethane (Chlorodibromomethane)	12J1227			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	12J1227			ug/L	N/A	5.00	<5.00							
1,2-Dibromoethane (EDB)	12J1227			ug/L	N/A	5.00	<5.00							
Dibromomethane	12J1227			ug/L	N/A	1.00	<1.00							
trans-1,4-Dichloro-2-butene	12J1227			ug/L	N/A	5.00	<5.00							
1,2-Dichlorobenzene	12J1227			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	12J1227			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethane	12J1227			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	12J1227			ug/L	N/A	1.00	<1.00							
cis-1,2-Dichloroethene	12J1227			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	12J1227			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	12J1227			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	12J1227			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	12J1227			ug/L	N/A	1.00	<1.00							
trans-1,3-Dichloropropene	12J1227			ug/L	N/A	1.00	<1.00							
Ethylbenzene	12J1227			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	12J1227			ug/L	N/A	5.00	<5.00							
2-Hexanone	12J1227			ug/L	N/A	10.0	<10.0							
Iodomethane	12J1227			ug/L	N/A	5.00	<5.00							
Methylene chloride	12J1227			ug/L	N/A	5.00	<5.00							
4-Methyl-2-pentanone (MIBK)	12J1227			ug/L	N/A	12.5	<12.5							
Styrene	12J1227			ug/L	N/A	1.00	<1.00							

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

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														
1,1,1,2-Tetrachloroethane	12J1227			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	12J1227			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	12J1227			ug/L	N/A	1.00	<1.00							
Toluene	12J1227			ug/L	N/A	1.00	<1.00							
1,1,1-Trichloroethane	12J1227			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	12J1227			ug/L	N/A	1.00	<1.00							
Trichloroethene	12J1227			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	12J1227			ug/L	N/A	1.00	<1.00							
1,2,3-Trichloropropane	12J1227			ug/L	N/A	5.00	<5.00							
Vinyl Acetate	12J1227			ug/L	N/A	5.00	<5.00							
Vinyl chloride	12J1227			ug/L	N/A	1.00	<1.00							
Xylenes, Total	12J1227			ug/L	N/A	2.00	<2.00							
Surrogate: 1,2-Dichloroethane-d4	*12J1227*			ug/L					*95*		*80-120*			
Surrogate: Dibromofluoromethane	*12J1227*			ug/L					*105*		*80-120*			
Surrogate: Toluene-d8	*12J1227*			ug/L					*91*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*12J1227*			ug/L					*104*		*80-120*			
Acetone	12J1262			ug/L	N/A	20.0	<20.0							
Acrylonitrile	12J1262			ug/L	N/A	50.0	<50.0							
Benzene	12J1262			ug/L	N/A	1.00	<1.00							
Bromochloromethane	12J1262			ug/L	N/A	1.00	<1.00							
Bromodichloromethane (Dichlorobromomethane)	12J1262			ug/L	N/A	1.00	<1.00							
Bromoform	12J1262			ug/L	N/A	1.00	<1.00							
Bromomethane (Methyl bromide)	12J1262			ug/L	N/A	5.00	<5.00							
2-Butanone (MEK)	12J1262			ug/L	N/A	12.5	<12.5							
Carbon disulfide	12J1262			ug/L	N/A	1.00	<1.00							
Carbon tetrachloride	12J1262			ug/L	N/A	1.00	<1.00							
Chlorobenzene	12J1262			ug/L	N/A	1.00	<1.00							
Chloroethane	12J1262			ug/L	N/A	5.00	<5.00							
Chloroform	12J1262			ug/L	N/A	1.00	<1.00							
Chloromethane (Methyl chloride)	12J1262			ug/L	N/A	5.00	<5.00							
Dibromochloromethane (Chlorodibromomethane)	12J1262			ug/L	N/A	1.00	<1.00							
1,2-Dibromo-3-chloropropane	12J1262			ug/L	N/A	5.00	<5.00							
1,2-Dibromoethane (EDB)	12J1262			ug/L	N/A	5.00	<5.00							
Dibromomethane	12J1262			ug/L	N/A	1.00	<1.00							
trans-1,4-Dichloro-2-butene	12J1262			ug/L	N/A	5.00	<5.00							
1,2-Dichlorobenzene	12J1262			ug/L	N/A	1.00	<1.00							
1,4-Dichlorobenzene	12J1262			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethane	12J1262			ug/L	N/A	1.00	<1.00							
1,2-Dichloroethane	12J1262			ug/L	N/A	1.00	<1.00							
cis-1,2-Dichloroethene	12J1262			ug/L	N/A	1.00	<1.00							
trans-1,2-Dichloroethene	12J1262			ug/L	N/A	1.00	<1.00							
1,1-Dichloroethene	12J1262			ug/L	N/A	1.00	<1.00							
1,2-Dichloropropane	12J1262			ug/L	N/A	1.00	<1.00							
cis-1,3-Dichloropropene	12J1262			ug/L	N/A	1.00	<1.00							

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4738 Gateway Circle Dayton, OH 45440 (800) 572-9839
Michigan Service Center 10448 Citation Drive, Suite 200 Brighton, MI 48116

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

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														
trans-1,3-Dichloropropene	12J1262			ug/L	N/A	1.00	<1.00							
Ethylbenzene	12J1262			ug/L	N/A	1.00	<1.00							
Hexachlorobutadiene	12J1262			ug/L	N/A	5.00	<5.00							
2-Hexanone	12J1262			ug/L	N/A	10.0	<10.0							
Iodomethane	12J1262			ug/L	N/A	5.00	<5.00							
Methylene chloride	12J1262			ug/L	N/A	5.00	<5.00							
4-Methyl-2-pentanone (MIBK)	12J1262			ug/L	N/A	12.5	<12.5							
Styrene	12J1262			ug/L	N/A	1.00	<1.00							
1,1,1,2-Tetrachloroethane	12J1262			ug/L	N/A	1.00	<1.00							
1,1,2,2-Tetrachloroethane	12J1262			ug/L	N/A	1.00	<1.00							
Tetrachloroethene	12J1262			ug/L	N/A	1.00	<1.00							
Toluene	12J1262			ug/L	N/A	1.00	<1.00							
1,1,1-Trichloroethane	12J1262			ug/L	N/A	1.00	<1.00							
1,1,2-Trichloroethane	12J1262			ug/L	N/A	1.00	<1.00							
Trichloroethene	12J1262			ug/L	N/A	1.00	<1.00							
Trichlorofluoromethane	12J1262			ug/L	N/A	1.00	<1.00							
1,2,3-Trichloropropane	12J1262			ug/L	N/A	5.00	<5.00							
Vinyl Acetate	12J1262			ug/L	N/A	5.00	<5.00							
Vinyl chloride	12J1262			ug/L	N/A	1.00	<1.00							
Xylenes, Total	12J1262			ug/L	N/A	2.00	<2.00							
Surrogate: 1,2-Dichloroethane-d4	*12J1262*			ug/L					*83*		*80-120*			
Surrogate: Dibromofluoromethane	*12J1262*			ug/L					*95*		*80-120*			
Surrogate: Toluene-d8	*12J1262*			ug/L					*98*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*12J1262*			ug/L					*103*		*80-120*			

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4738 Gateway Circle Dayton, OH 45440 (800) 572-9839
Michigan Service Center 10448 Citation Drive, Suite 200 Brighton, MI 48116

Burgess & Niple (Landfill)	Work Order:	DVJ0989		Received:	10/24/12
5085 Reed Rd.	Project:	Wayne RRF - Columbia City, Indiana		Reported:	11/08/12 16:13
Columbus, OH 43220	Project Number:	51112			
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: DVJ0989-01													
Chloride	12J1060	51.1		mg/L	N/A	1.00	51.1				0	20	
QC Source Sample: DVJ0989-01													
Chemical Oxygen Demand	12J1069	12.3		mg/L	N/A	10.0	9.44				27	30	
QC Source Sample: DVJ0860-06													
Ammonia, Undistilled as N	12J1175	23.7		mg/L	N/A	2.00	23.5				1	20	

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

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														
Chloride	12J1060		20.0	mg/L	N/A	1.00	20.0		100		90-110			
Chemical Oxygen Demand	12J1069		30.0	mg/L	N/A	N/A	30.9		103		90-110			
Ammonia, Undistilled as N	12J1175		0.500	mg/L	N/A	0.0500	0.488		98		90-110			
Total Metals														
Sodium	12J1106		50.0	mg/L	N/A	1.00	50.6		101		80-120			
Volatile Organic Compounds by GC/MS														
Acetone	12J1227		50.0	ug/L	N/A	20.0	44.6		89		40-142			
Acrylonitrile	12J1227		20.0	ug/L	N/A	50.0	16.4		82		56-123			
Benzene	12J1227		20.0	ug/L	N/A	1.00	19.7		98		79-120			
Bromochloromethane	12J1227		20.0	ug/L	N/A	1.00	22.8		114		77-122			
Bromodichloromethane (Dichlorobromomethane)	12J1227		20.0	ug/L	N/A	1.00	21.1		106		76-121			
Bromoform	12J1227		20.0	ug/L	N/A	1.00	20.3		102		69-120			
Bromomethane (Methyl bromide)	12J1227		20.0	ug/L	N/A	5.00	18.0		90		64-120			
2-Butanone (MEK)	12J1227		50.0	ug/L	N/A	12.5	49.4		99		69-121			
Carbon disulfide	12J1227		20.0	ug/L	N/A	1.00	18.7		93		75-121			
Carbon tetrachloride	12J1227		20.0	ug/L	N/A	1.00	22.7		113		70-129			
Chlorobenzene	12J1227		20.0	ug/L	N/A	1.00	19.1		96		78-120			
Chloroethane	12J1227		20.0	ug/L	N/A	5.00	19.6		98		67-120			
Chloroform	12J1227		20.0	ug/L	N/A	1.00	19.2		96		77-120			
Chloromethane (Methyl chloride)	12J1227		20.0	ug/L	N/A	5.00	18.2		91		58-120			
Dibromochloromethane (Chlorodibromomethane)	12J1227		20.0	ug/L	N/A	1.00	19.1		96		76-123			
1,2-Dibromo-3-chloropropane	12J1227		20.0	ug/L	N/A	5.00	18.9		94		68-135			
1,2-Dibromoethane (EDB)	12J1227		20.0	ug/L	N/A	5.00	19.9		100		74-120			
Dibromomethane	12J1227		20.0	ug/L	N/A	1.00	20.5		102		79-120			
trans-1,4-Dichloro-2-butene	12J1227		20.0	ug/L	N/A	5.00	18.8		94		35-128			
1,2-Dichlorobenzene	12J1227		20.0	ug/L	N/A	1.00	19.8		99		78-123			
1,4-Dichlorobenzene	12J1227		20.0	ug/L	N/A	1.00	19.2		96		74-120			
1,1-Dichloroethane	12J1227		20.0	ug/L	N/A	1.00	19.1		95		79-120			
1,2-Dichloroethane	12J1227		20.0	ug/L	N/A	1.00	19.4		97		75-120			
cis-1,2-Dichloroethene	12J1227		20.0	ug/L	N/A	1.00	20.6		103		80-120			
trans-1,2-Dichloroethene	12J1227		20.0	ug/L	N/A	1.00	20.8		104		79-120			
1,1-Dichloroethene	12J1227		20.0	ug/L	N/A	1.00	21.1		105		71-121			
1,2-Dichloropropane	12J1227		20.0	ug/L	N/A	1.00	19.1		96		80-120			
cis-1,3-Dichloropropene	12J1227		20.0	ug/L	N/A	1.00	22.3		111		80-120			
trans-1,3-Dichloropropene	12J1227		20.0	ug/L	N/A	1.00	17.9		89		74-120			
Ethylbenzene	12J1227		20.0	ug/L	N/A	1.00	19.7		98		79-120			
Hexachlorobutadiene	12J1227		20.0	ug/L	N/A	5.00	21.0		105		74-145			
2-Hexanone	12J1227		50.0	ug/L	N/A	10.0	41.1		82		59-129			
Iodomethane	12J1227		20.0	ug/L	N/A	5.00	15.4		77		53-120			
Methylene chloride	12J1227		20.0	ug/L	N/A	5.00	19.3		97		76-120			
4-Methyl-2-pentanone (MIBK)	12J1227		50.0	ug/L	N/A	12.5	45.1		90		69-122			
Styrene	12J1227		20.0	ug/L	N/A	1.00	18.6		93		76-120			

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

Work Order: DVJ0989
Project: Wayne RRF - Columbia City, Indiana
Project Number: 51112

Received: 10/24/12
Reported: 11/08/12 16:13

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	12J1227		20.0	ug/L	N/A	1.00	20.7		103		77-121			
1,1,2,2-Tetrachloroethane	12J1227		20.0	ug/L	N/A	1.00	17.0		85		74-120			
Tetrachloroethene	12J1227		20.0	ug/L	N/A	1.00	19.3		96		62-128			
Toluene	12J1227		20.0	ug/L	N/A	1.00	18.3		92		79-120			
1,1,1-Trichloroethane	12J1227		20.0	ug/L	N/A	1.00	20.3		101		74-121			
1,1,2-Trichloroethane	12J1227		20.0	ug/L	N/A	1.00	18.9		95		75-120			
Trichloroethene	12J1227		20.0	ug/L	N/A	1.00	21.8		109		77-120			
Trichlorofluoromethane	12J1227		20.0	ug/L	N/A	1.00	20.5		103		71-136			
1,2,3-Trichloropropane	12J1227		20.0	ug/L	N/A	5.00	20.6		103		74-120			
Vinyl Acetate	12J1227		20.0	ug/L	N/A	5.00	20.7		104		64-129			
Vinyl chloride	12J1227		20.0	ug/L	N/A	1.00	18.0		90		65-126			
Surrogate: 1,2-Dichloroethane-d4	*12J1227*			ug/L					*94*		*80-120*			
Surrogate: Dibromofluoromethane	*12J1227*			ug/L					*101*		*80-120*			
Surrogate: Toluene-d8	*12J1227*			ug/L					*90*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*12J1227*			ug/L					*104*		*80-120*			
Acetone	12J1262		50.0	ug/L	N/A	20.0	38.4		77		40-142			
Acrylonitrile	12J1262		20.0	ug/L	N/A	50.0	18.0		90		56-123			
Benzene	12J1262		20.0	ug/L	N/A	1.00	20.6		103		79-120			
Bromochloromethane	12J1262		20.0	ug/L	N/A	1.00	20.8		104		77-122			
Bromodichloromethane (Dichlorobromomethane)	12J1262		20.0	ug/L	N/A	1.00	18.6		93		76-121			
Bromoform	12J1262		20.0	ug/L	N/A	1.00	18.8		94		69-120			
Bromomethane (Methyl bromide)	12J1262		20.0	ug/L	N/A	5.00	21.6		108		64-120			
2-Butanone (MEK)	12J1262		50.0	ug/L	N/A	12.5	44.9		90		69-121			
Carbon disulfide	12J1262		20.0	ug/L	N/A	1.00	19.6		98		75-121			
Carbon tetrachloride	12J1262		20.0	ug/L	N/A	1.00	19.3		97		70-129			
Chlorobenzene	12J1262		20.0	ug/L	N/A	1.00	20.2		101		78-120			
Chloroethane	12J1262		20.0	ug/L	N/A	5.00	20.4		102		67-120			
Chloroform	12J1262		20.0	ug/L	N/A	1.00	18.4		92		77-120			
Chloromethane (Methyl chloride)	12J1262		20.0	ug/L	N/A	5.00	20.1		100		58-120			
Dibromochloromethane (Chlorodibromomethane)	12J1262		20.0	ug/L	N/A	1.00	19.4		97		76-123			
1,2-Dibromo-3-chloropropane	12J1262		20.0	ug/L	N/A	5.00	16.3		81		68-135			
1,2-Dibromoethane (EDB)	12J1262		20.0	ug/L	N/A	5.00	18.4		92		74-120			
Dibromomethane	12J1262		20.0	ug/L	N/A	1.00	18.7		94		79-120			
trans-1,4-Dichloro-2-butene	12J1262		20.0	ug/L	N/A	5.00	17.0		85		35-128			
1,2-Dichlorobenzene	12J1262		20.0	ug/L	N/A	1.00	19.8		99		78-123			
1,4-Dichlorobenzene	12J1262		20.0	ug/L	N/A	1.00	19.8		99		74-120			
1,1-Dichloroethane	12J1262		20.0	ug/L	N/A	1.00	19.4		97		79-120			
1,2-Dichloroethane	12J1262		20.0	ug/L	N/A	1.00	16.9		84		75-120			
cis-1,2-Dichloroethene	12J1262		20.0	ug/L	N/A	1.00	20.4		102		80-120			
trans-1,2-Dichloroethene	12J1262		20.0	ug/L	N/A	1.00	20.6		103		79-120			
1,1-Dichloroethene	12J1262		20.0	ug/L	N/A	1.00	20.5		103		71-121			
1,2-Dichloropropane	12J1262		20.0	ug/L	N/A	1.00	19.9		99		80-120			
cis-1,3-Dichloropropene	12J1262		20.0	ug/L	N/A	1.00	21.6		108		80-120			
trans-1,3-Dichloropropene	12J1262		20.0	ug/L	N/A	1.00	18.7		94		74-120			

Burgess & Niple (Landfill)
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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														
Ethylbenzene	12J1262		20.0	ug/L	N/A	1.00	20.1		100		79-120			
Hexachlorobutadiene	12J1262		20.0	ug/L	N/A	5.00	18.1		91		74-145			
2-Hexanone	12J1262		50.0	ug/L	N/A	10.0	41.7		83		59-129			
Iodomethane	12J1262		20.0	ug/L	N/A	5.00	20.0		100		53-120			
Methylene chloride	12J1262		20.0	ug/L	N/A	5.00	20.3		102		76-120			
4-Methyl-2-pentanone (MIBK)	12J1262		50.0	ug/L	N/A	12.5	43.1		86		69-122			
Styrene	12J1262		20.0	ug/L	N/A	1.00	20.6		103		76-120			
1,1,1,2-Tetrachloroethane	12J1262		20.0	ug/L	N/A	1.00	19.4		97		77-121			
1,1,2,2-Tetrachloroethane	12J1262		20.0	ug/L	N/A	1.00	19.2		96		74-120			
Tetrachloroethene	12J1262		20.0	ug/L	N/A	1.00	17.6		88		62-128			
Toluene	12J1262		20.0	ug/L	N/A	1.00	20.4		102		79-120			
1,1,1-Trichloroethane	12J1262		20.0	ug/L	N/A	1.00	18.0		90		74-121			
1,1,2-Trichloroethane	12J1262		20.0	ug/L	N/A	1.00	18.9		94		75-120			
Trichloroethene	12J1262		20.0	ug/L	N/A	1.00	20.2		101		77-120			
Trichlorofluoromethane	12J1262		20.0	ug/L	N/A	1.00	19.4		97		71-136			
1,2,3-Trichloropropane	12J1262		20.0	ug/L	N/A	5.00	18.4		92		74-120			
Vinyl Acetate	12J1262		20.0	ug/L	N/A	5.00	18.8		94		64-129			
Vinyl chloride	12J1262		20.0	ug/L	N/A	1.00	21.9		109		65-126			
Surrogate: 1,2-Dichloroethane-d4	*12J1262*			ug/L					*85*		*80-120*			
Surrogate: Dibromofluoromethane	*12J1262*			ug/L					*95*		*80-120*			
Surrogate: Toluene-d8	*12J1262*			ug/L					*101*		*80-120*			
Surrogate: 4-Bromofluorobenzene	*12J1262*			ug/L					*99*		*80-120*			

Burgess & Niple (Landfill)
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MATRIX SPIKE/MATRIX SPIKE 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														
QC Source Sample: DVJ0944-01														
Chloride	12J1060	30.9	15.0	mg/L	N/A	5.00	46.9	46.6	107	105	90-110	1	20	
QC Source Sample: DVJ0971-01														
Chemical Oxygen Demand	12J1069	13.3	20.0	mg/L	N/A	10.0	31.6		91		30-150			
QC Source Sample: DVJ0944-01														
Ammonia, Undistilled as N	12J1175	0.0980	0.500	mg/L	N/A	0.0500	0.522		85		78-110			
QC Source Sample: DVJ0989-05														
Ammonia, Undistilled as N	12J1175	0.300	0.500	mg/L	N/A	0.0500	0.719		84		78-110			
Total Metals														
QC Source Sample: DVJ1040-01														
Sodium	12J1106	250	50.0	mg/L	N/A	1.00	306	311	112	122	75-125	2	20	
Volatile Organic Compounds by GC/MS														
QC Source Sample: DVJ1008-01														
Acetone	12J1262	<4000	10000	ug/L	N/A	4000	7040	6870	70	69	40-142	2	25	
Acrylonitrile	12J1262	<10000	4000	ug/L	N/A	10000	3460	3390	87	85	56-123	2	25	
Benzene	12J1262	<200	4000	ug/L	N/A	200	4150	4190	104	105	79-120	1	25	
Bromochloromethane	12J1262	<200	4000	ug/L	N/A	200	4040	4000	101	100	77-122	1	25	
Bromodichloromethane (Dichlorobromomethane)	12J1262	<200	4000	ug/L	N/A	200	3720	3640	93	91	76-121	2	25	
Bromoform	12J1262	<200	4000	ug/L	N/A	200	3580	3350	90	84	69-120	7	25	
Bromomethane (Methyl bromide)	12J1262	<1000	4000	ug/L	N/A	1000	4370	4690	109	117	64-120	7	25	
2-Butanone (MEK)	12J1262	<2500	10000	ug/L	N/A	2500	8230	8190	82	82	69-121	1	25	
Carbon disulfide	12J1262	<200	4000	ug/L	N/A	200	4130	4260	103	106	75-121	3	25	
Carbon tetrachloride	12J1262	<200	4000	ug/L	N/A	200	4110	4010	103	100	70-129	2	25	
Chlorobenzene	12J1262	<200	4000	ug/L	N/A	200	4070	4060	102	102	78-120	0	25	
Chloroethane	12J1262	<1000	4000	ug/L	N/A	1000	4270	4450	107	111	67-120	4	25	
Chloroform	12J1262	<200	4000	ug/L	N/A	200	3750	3700	94	92	77-120	1	25	
Chloromethane (Methyl chloride)	12J1262	<1000	4000	ug/L	N/A	1000	3970	4300	99	108	58-120	8	25	
Dibromochloromethane (Chlorodibromomethane)	12J1262	<200	4000	ug/L	N/A	200	3800	3730	95	93	76-123	2	25	
1,2-Dibromo-3-chloropropane	12J1262	<1000	4000	ug/L	N/A	1000	2800	2670	70	67	68-135	5	25	
1,2-Dibromoethane (EDB)	12J1262	<1000	4000	ug/L	N/A	1000	3480	3510	87	88	74-120	1	25	
Dibromomethane	12J1262	<200	4000	ug/L	N/A	200	3560	3540	89	88	79-120	1	25	
trans-1,4-Dichloro-2-butene	12J1262	<1000	4000	ug/L	N/A	1000	3490	3300	87	83	35-128	6	25	
1,2-Dichlorobenzene	12J1262	<200	4000	ug/L	N/A	200	3910	3710	98	93	78-123	5	25	
1,4-Dichlorobenzene	12J1262	<200	4000	ug/L	N/A	200	3940	3740	98	94	74-120	5	25	
1,1-Dichloroethane	12J1262	<200	4000	ug/L	N/A	200	4000	3990	100	100	79-120	0	25	
1,2-Dichloroethane	12J1262	<200	4000	ug/L	N/A	200	3320	3270	83	82	75-120	1	25	
cis-1,2-Dichloroethene	12J1262	<200	4000	ug/L	N/A	200	4130	4120	103	103	80-120	0	25	
trans-1,2-Dichloroethene	12J1262	<200	4000	ug/L	N/A	200	4220	4240	106	106	79-120	0	25	
1,1-Dichloroethene	12J1262	<200	4000	ug/L	N/A	200	4300	4430	108	111	71-121	3	25	
1,2-Dichloropropane	12J1262	<200	4000	ug/L	N/A	200	4020	4040	100	101	80-120	1	25	
cis-1,3-Dichloropropene	12J1262	<200	4000	ug/L	N/A	200	4170	4260	104	106	80-120	2	25	
trans-1,3-Dichloropropene	12J1262	<200	4000	ug/L	N/A	200	3550	3540	89	88	74-120	0	25	
Ethylbenzene	12J1262	<200	4000	ug/L	N/A	200	4070	4130	102	103	79-120	1	25	
Hexachlorobutadiene	12J1262	<1000	4000	ug/L	N/A	1000	3220	3200	80	80	74-145	1	25	
2-Hexanone	12J1262	<2000	10000	ug/L	N/A	2000	7250	7260	72	73	59-129	0	25	
Iodomethane	12J1262	<1000	4000	ug/L	N/A	1000	4030	4250	101	106	53-120	5	25	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

4738 Gateway Circle Dayton, OH 45440 (800) 572-9839
Michigan Service Center 10448 Citation Drive, Suite 200 Brighton, MI 48116

Burgess & Niple (Landfill)	Work Order:	DVJ0989	Received:	10/24/12
5085 Reed Rd.	Project:	Wayne RRF - Columbia City, Indiana	Reported:	11/08/12 16:13
Columbus, OH 43220	Project Number:	51112		
Michael Akins				

MATRIX SPIKE/MATRIX SPIKE 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														
QC Source Sample: DVJ1008-01														
Methylene chloride	12J1262	238	4000	ug/L	N/A	1000	4280	4260	101	101	76-120	0	25	
4-Methyl-2-pentanone (MIBK)	12J1262	<2500	10000	ug/L	N/A	2500	7580	7650	76	77	69-122	1	25	
Styrene	12J1262	<200	4000	ug/L	N/A	200	4100	4070	103	102	76-120	1	25	
1,1,1,2-Tetrachloroethane	12J1262	<200	4000	ug/L	N/A	200	3890	3880	97	97	77-121	0	25	
1,1,2,2-Tetrachloroethane	12J1262	<200	4000	ug/L	N/A	200	3620	3340	90	83	74-120	8	25	
Tetrachloroethene	12J1262	<200	4000	ug/L	N/A	200	4270	4040	107	101	62-128	6	25	
Toluene	12J1262	<200	4000	ug/L	N/A	200	4120	4160	103	104	79-120	1	25	
1,1,1-Trichloroethane	12J1262	<200	4000	ug/L	N/A	200	3750	3700	94	92	74-121	1	25	
1,1,2-Trichloroethane	12J1262	<200	4000	ug/L	N/A	200	3620	3590	90	90	75-120	1	25	
Trichloroethene	12J1262	<200	4000	ug/L	N/A	200	4180	4110	104	103	77-120	2	25	
Trichlorofluoromethane	12J1262	<200	4000	ug/L	N/A	200	4230	4160	106	104	71-136	2	25	
1,2,3-Trichloropropane	12J1262	<1000	4000	ug/L	N/A	1000	3380	3170	84	79	74-120	6	25	
Vinyl Acetate	12J1262	<1000	4000	ug/L	N/A	1000	3310	3390	83	85	64-129	2	25	
Vinyl chloride	12J1262	<200	4000	ug/L	N/A	200	4640	5030	116	126	65-126	8	25	
Surrogate: 1,2-Dichloroethane-d4	*12J1262*			ug/L					*84*	*82*	*80-120*			
Surrogate: Dibromofluoromethane	*12J1262*			ug/L					*95*	*94*	*80-120*			
Surrogate: Toluene-d8	*12J1262*			ug/L					*99*	*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*12J1262*			ug/L					*100*	*94*	*80-120*			

Burgess & Niple (Landfill) 5085 Reed Rd. Columbus, OH 43220 Michael Akins	Work Order: Project: Project Number:	DVJ0989 Wayne RRF - Columbia City, Indiana 51112	Received: Reported:	10/24/12 11/08/12 16:13

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) .

DATA QUALIFIERS AND DEFINITIONS

RL7 Sample required dilution due to high concentrations of target analyte.

ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted in the units.

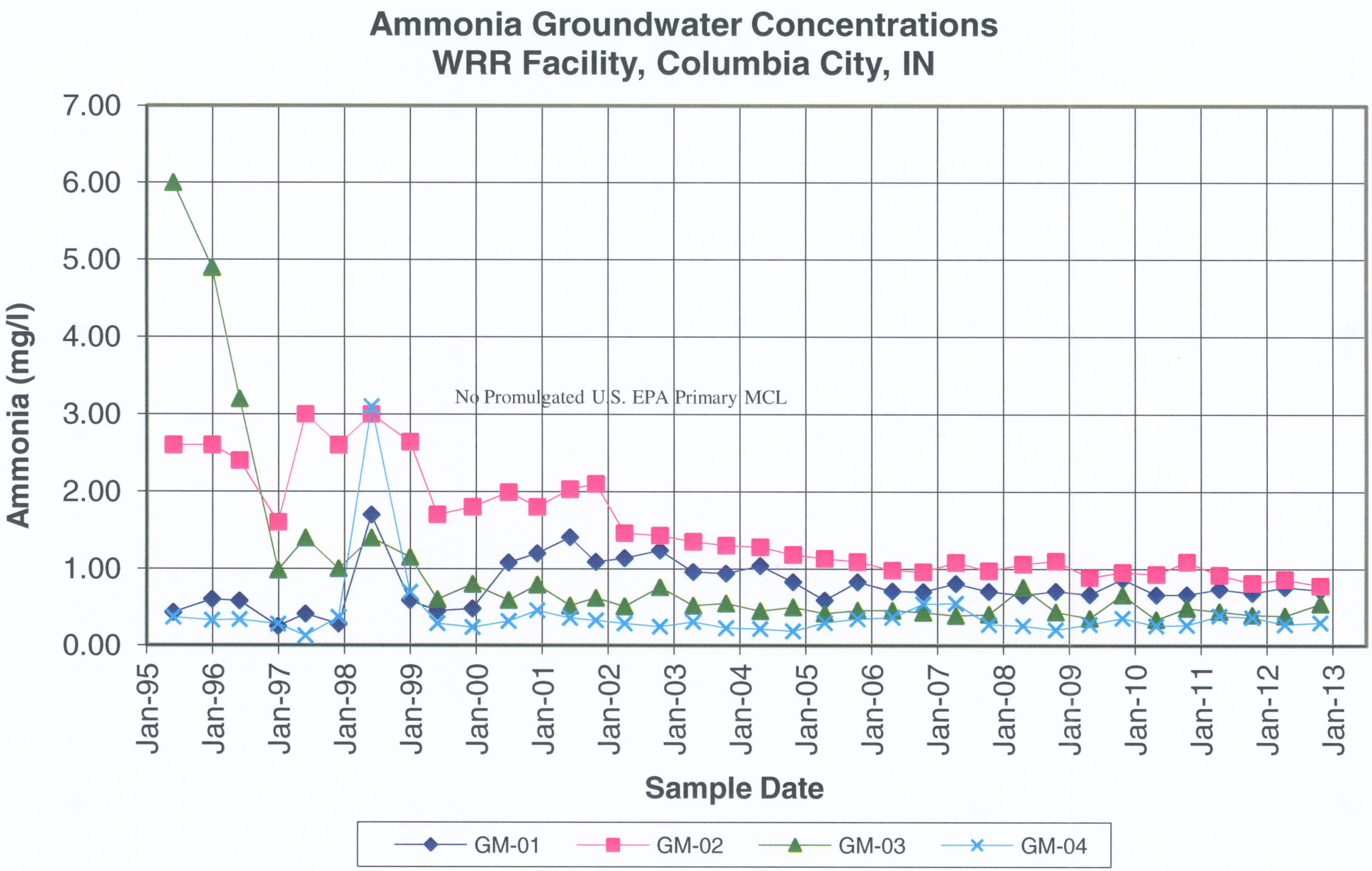
ANALYSIS LOCATIONS

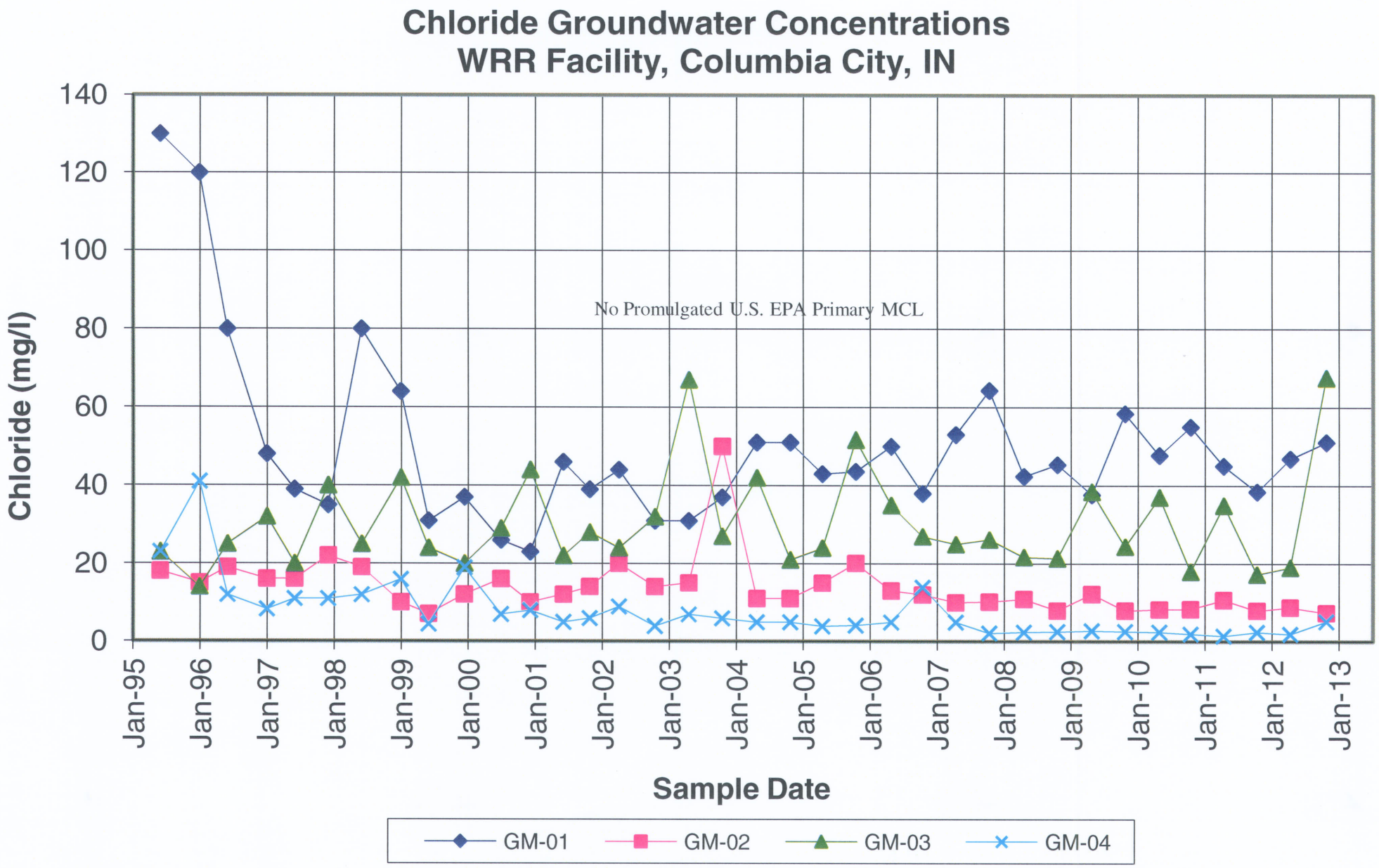
Any analyses listed below were analyzed in satellite facilities

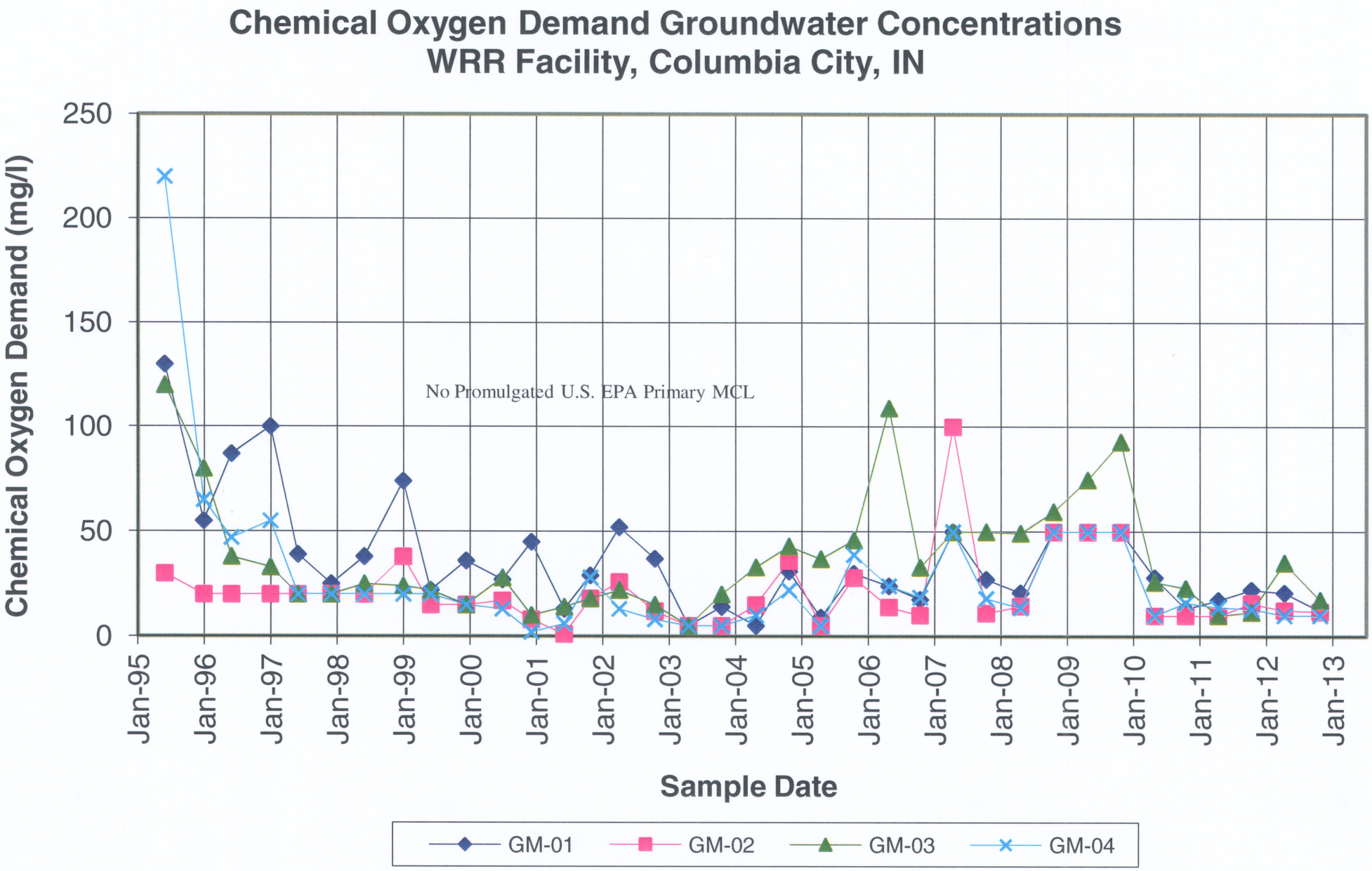
Turbidity - Client Supplied	Water - NonPotable
Temperature - Client Supplied	Water - NonPotable
pH - Client Supplied	Water - NonPotable
Conductance - Client Supplied	Water - NonPotable

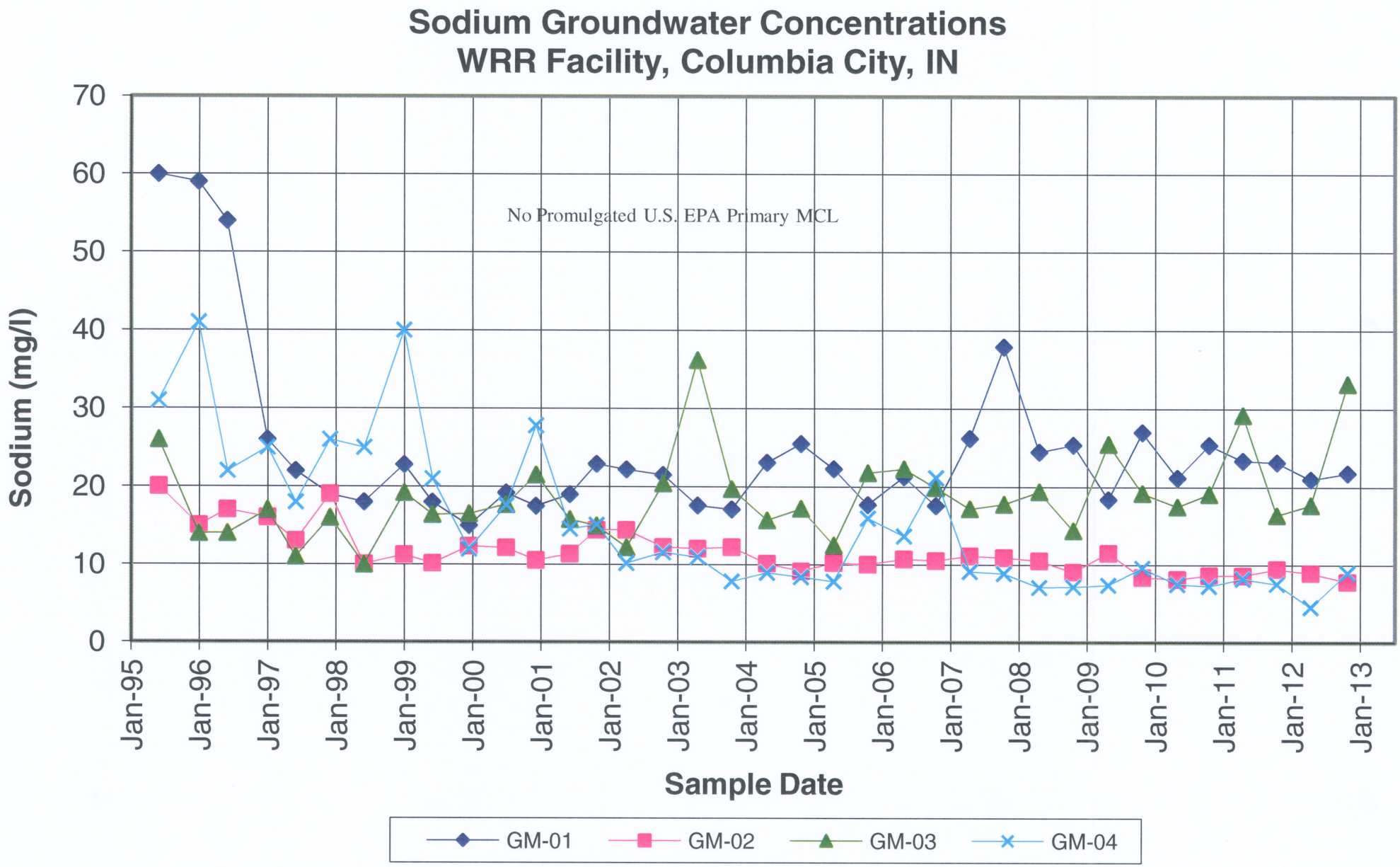
ATTACHMENT 3

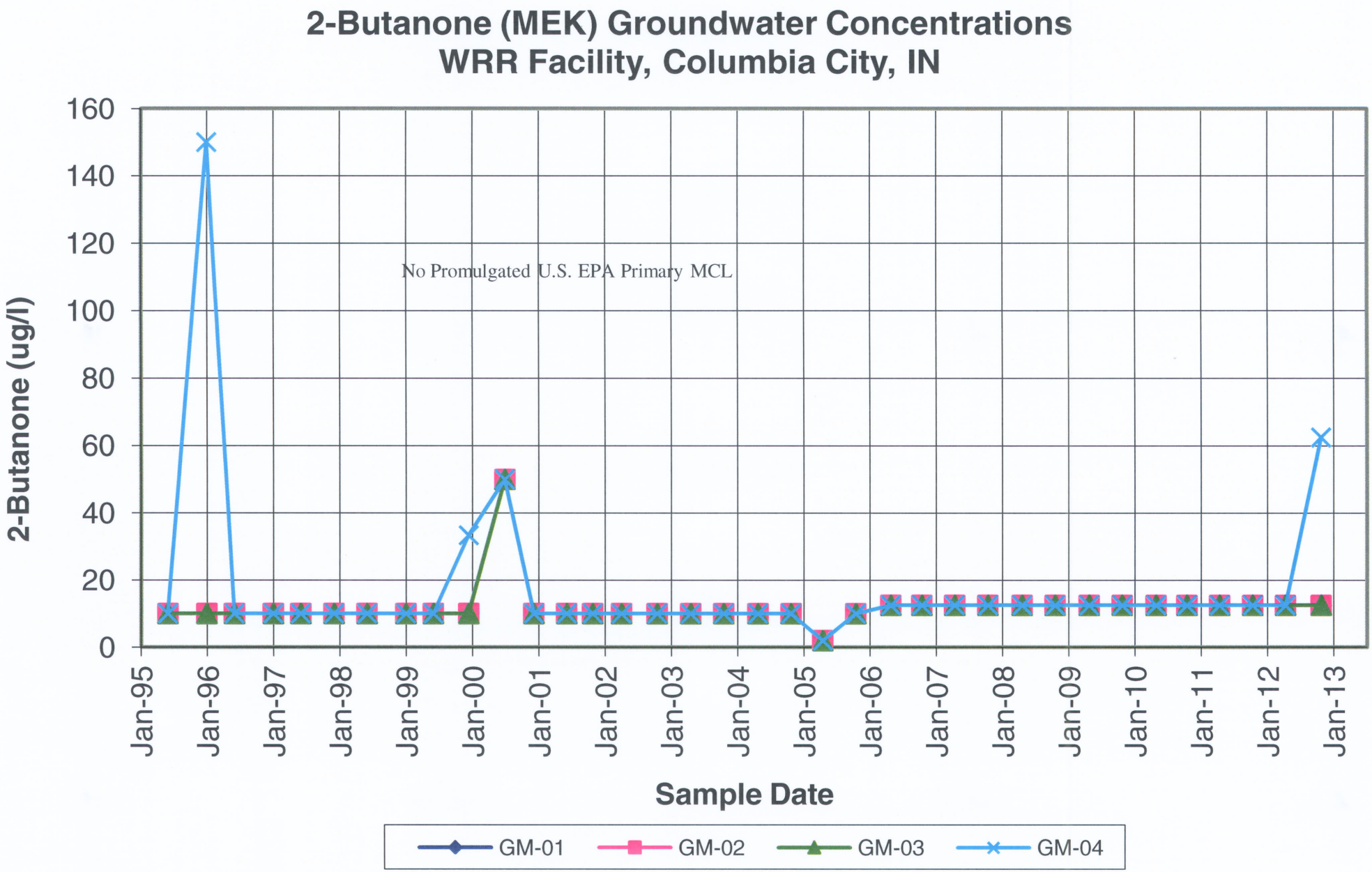
TIME-VERSUS-CONCENTRATION PLOTS

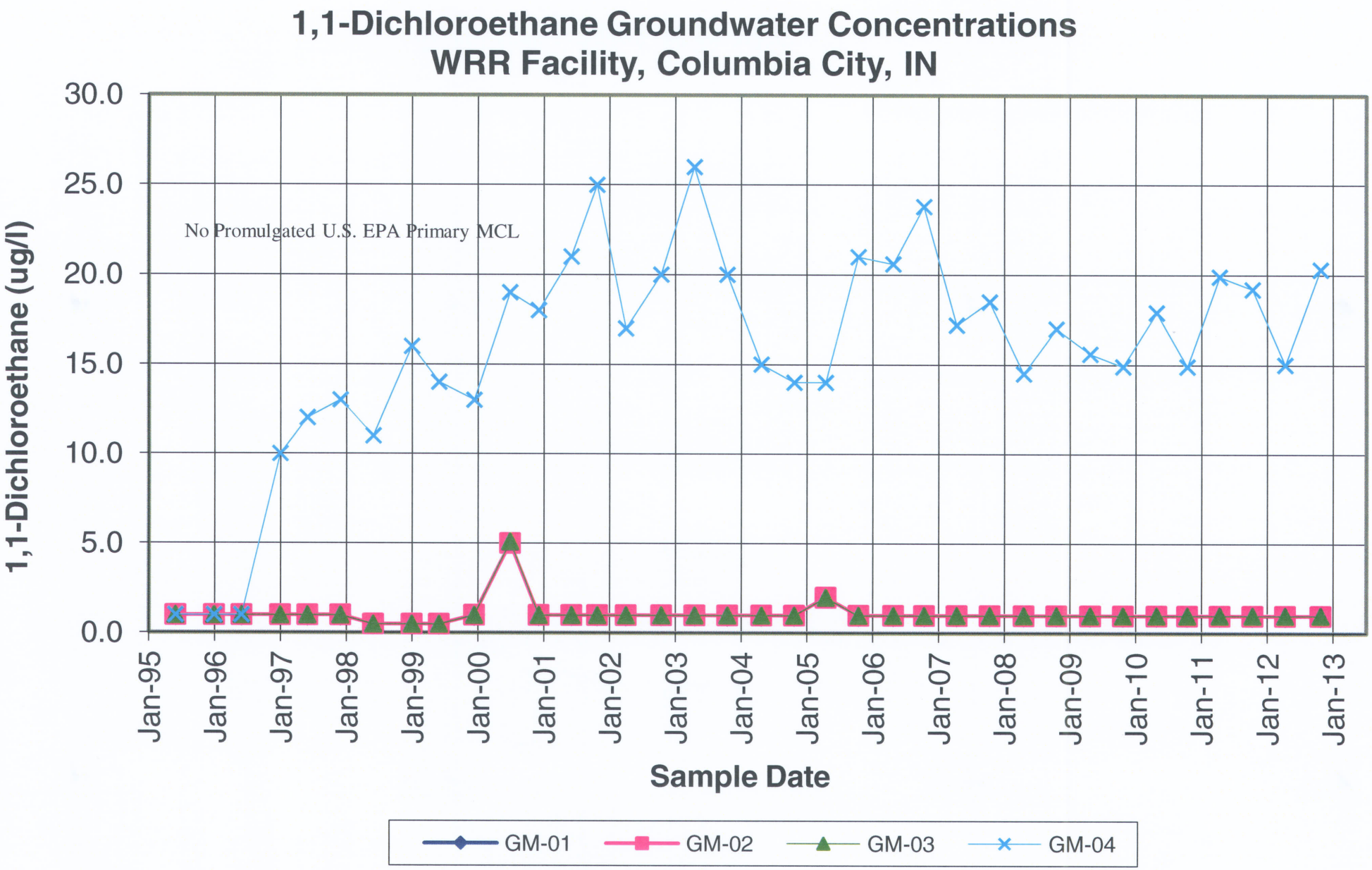

Ammonia Groundwater Concentrations
WRR Facility, Columbia City, IN
Ammonia (mg/l)
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

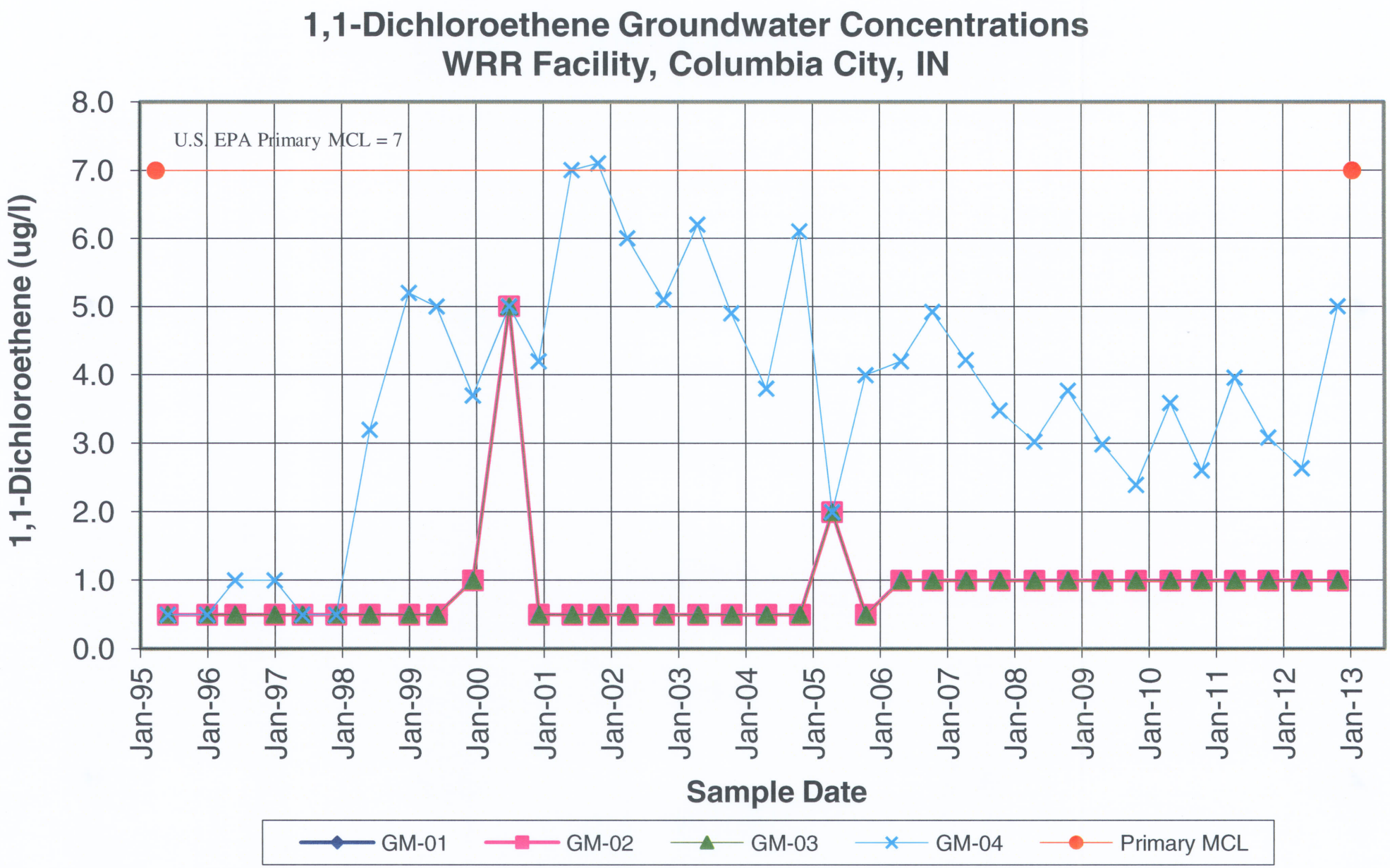

Chloride Groundwater Concentrations
WRR Facility, Columbia City, IN
Chloride (mg/l)
140
120
100
80
60
40
20
0
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

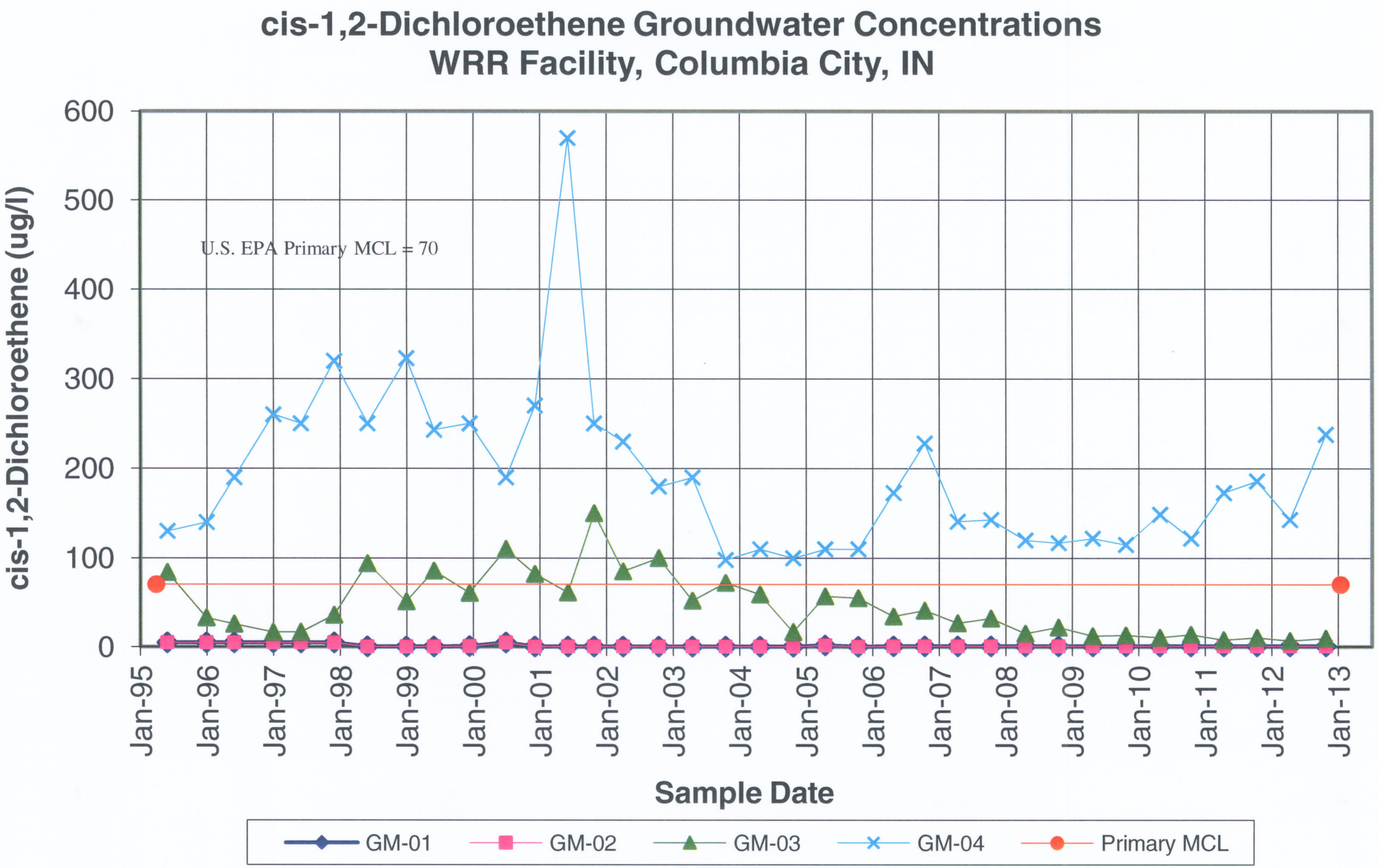

Chemical Oxygen Demand Groundwater Concentrations
WRR Facility, Columbia City, IN
Chemical Oxygen Demand (mg/l)
250
200
150
100
50
0
No Promulgated U.S. EPA Primary MCL
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

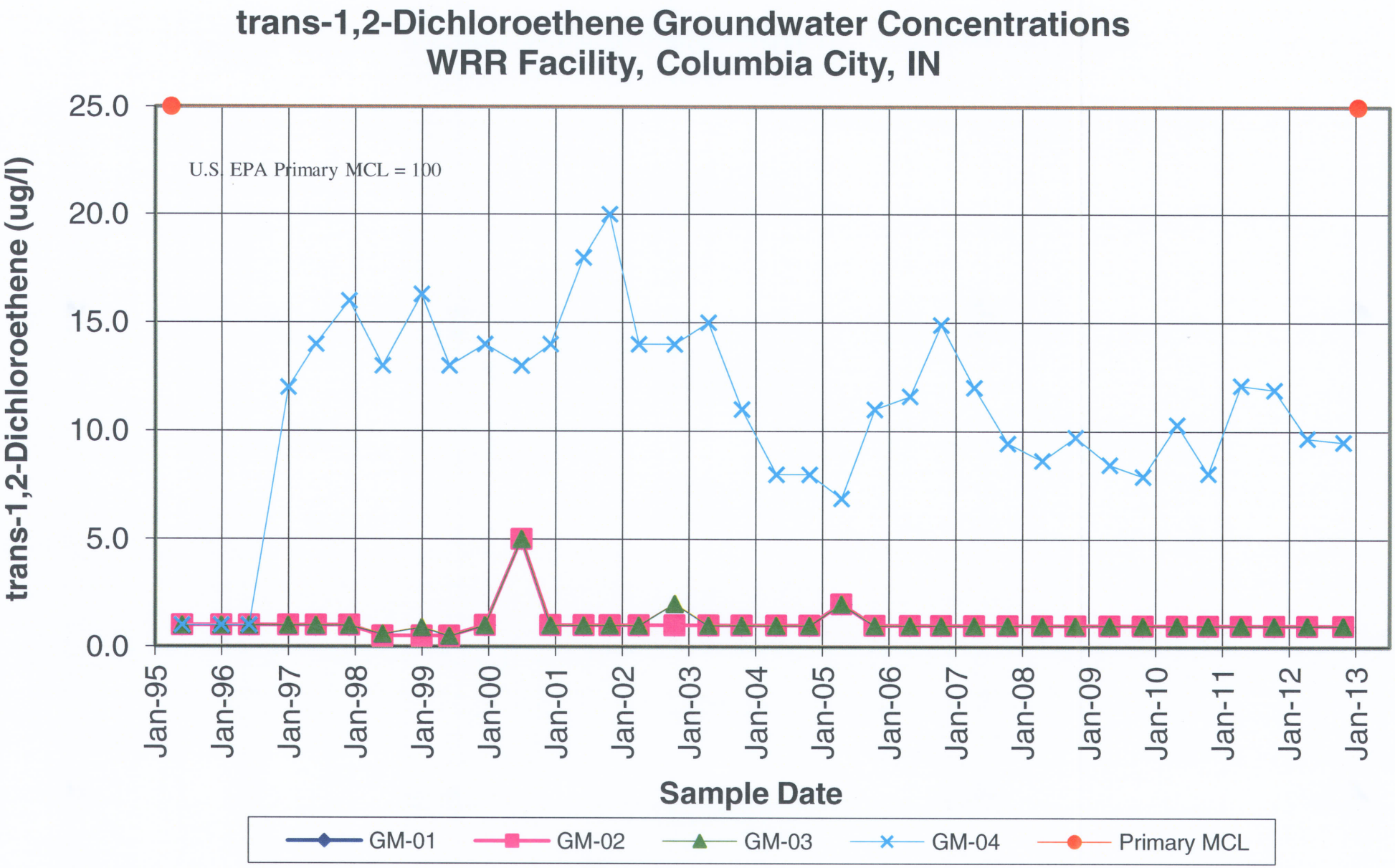

Sodium Groundwater Concentrations
WRR Facility, Columbia City, IN
No Promulgated U.S. EPA Primary MCL
Sodium (mg/l)
70
60
50
40
30
20
10
0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

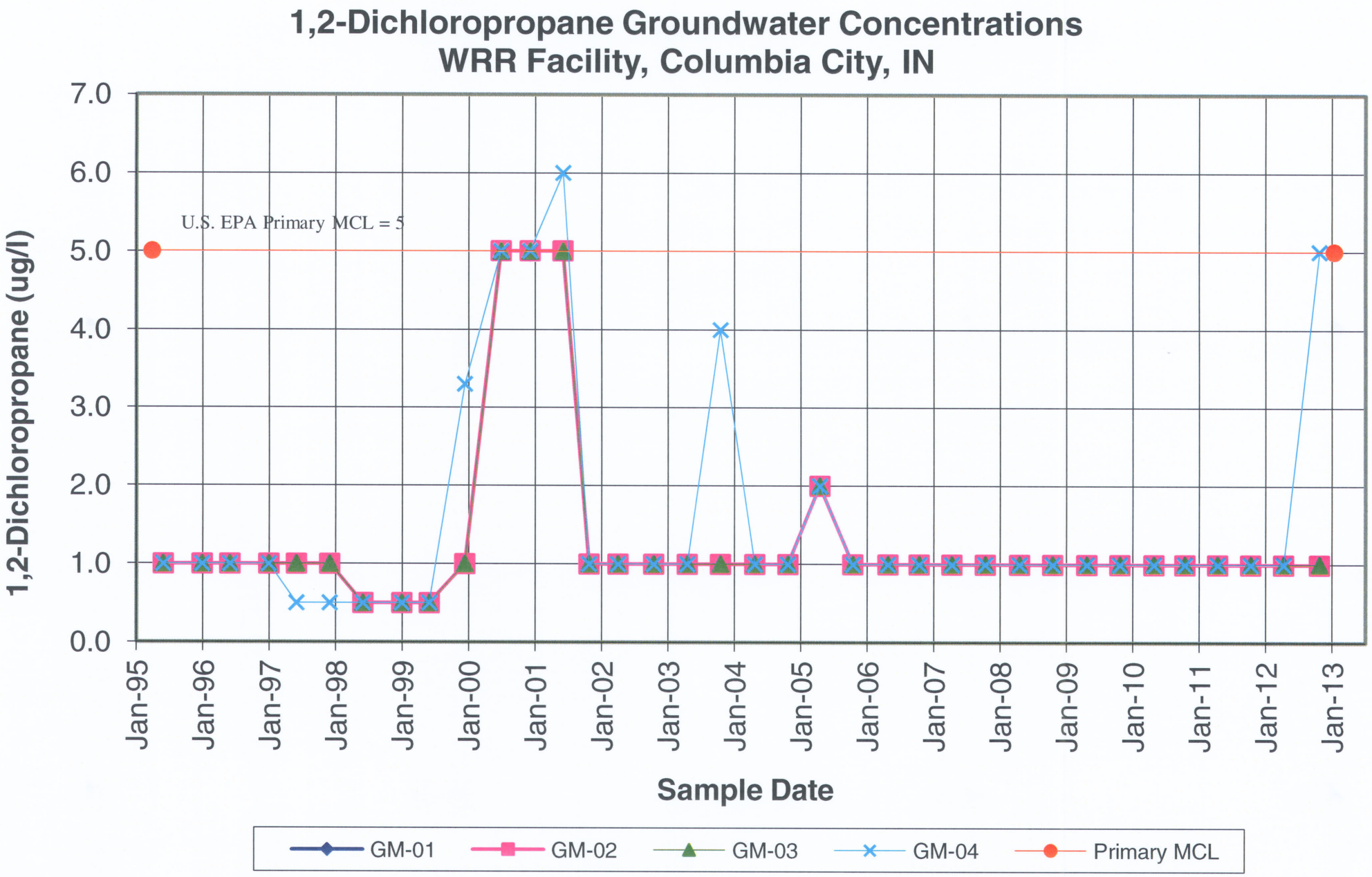

2-Butanone (MEK) Groundwater Concentrations
WRR Facility, Columbia City, IN
No Promulgated U.S. EPA Primary MCL
2-Butanone (ug/l)
160
140
120
100
80
60
40
20
0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

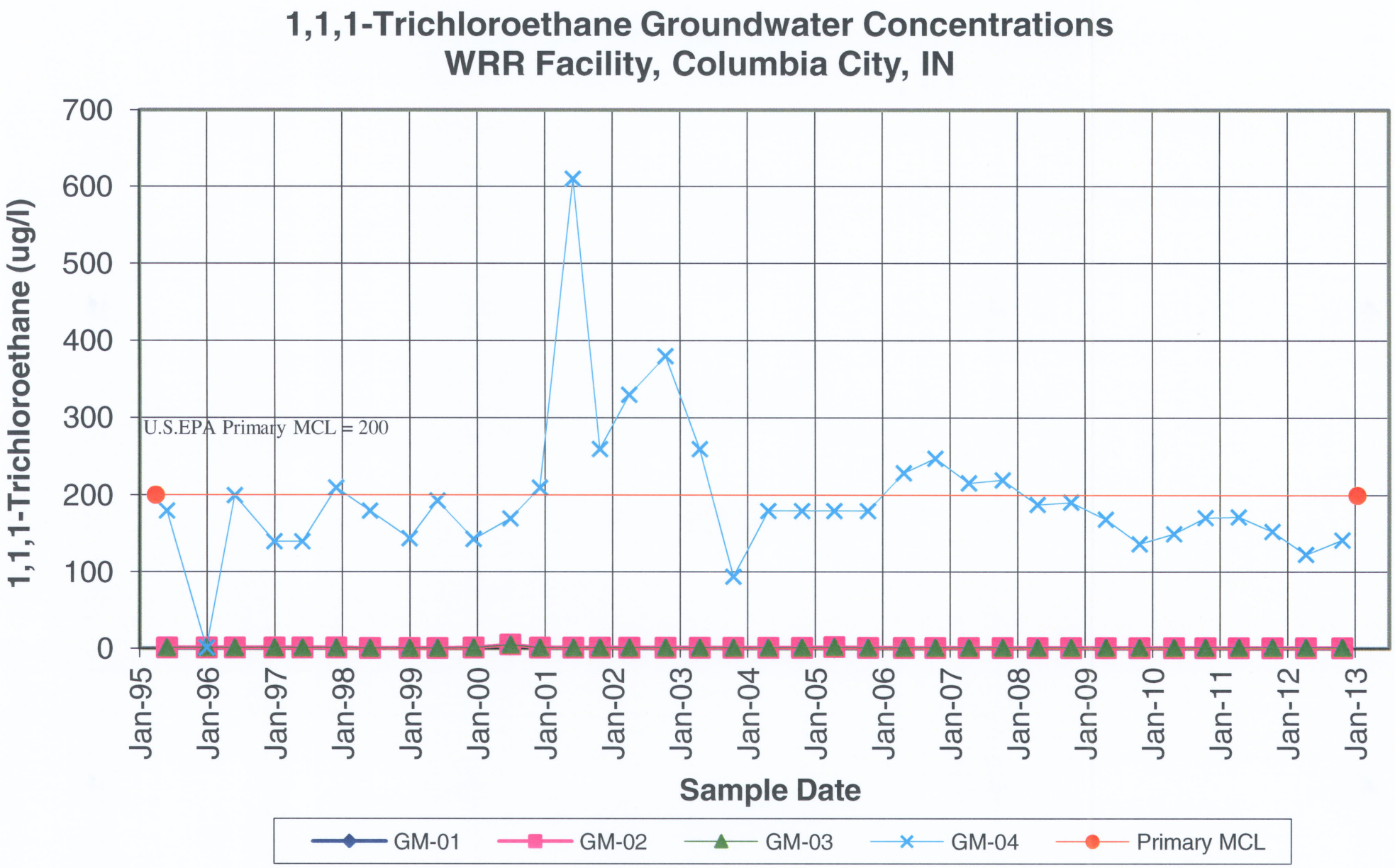

1,1-Dichloroethane Groundwater Concentrations
WRR Facility, Columbia City, IN
No Promulgated U.S. EPA Primary MCL
1,1-Dichloroethane (ug/l)
30.0
25.0
20.0
15.0
10.0
5.0
0.0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

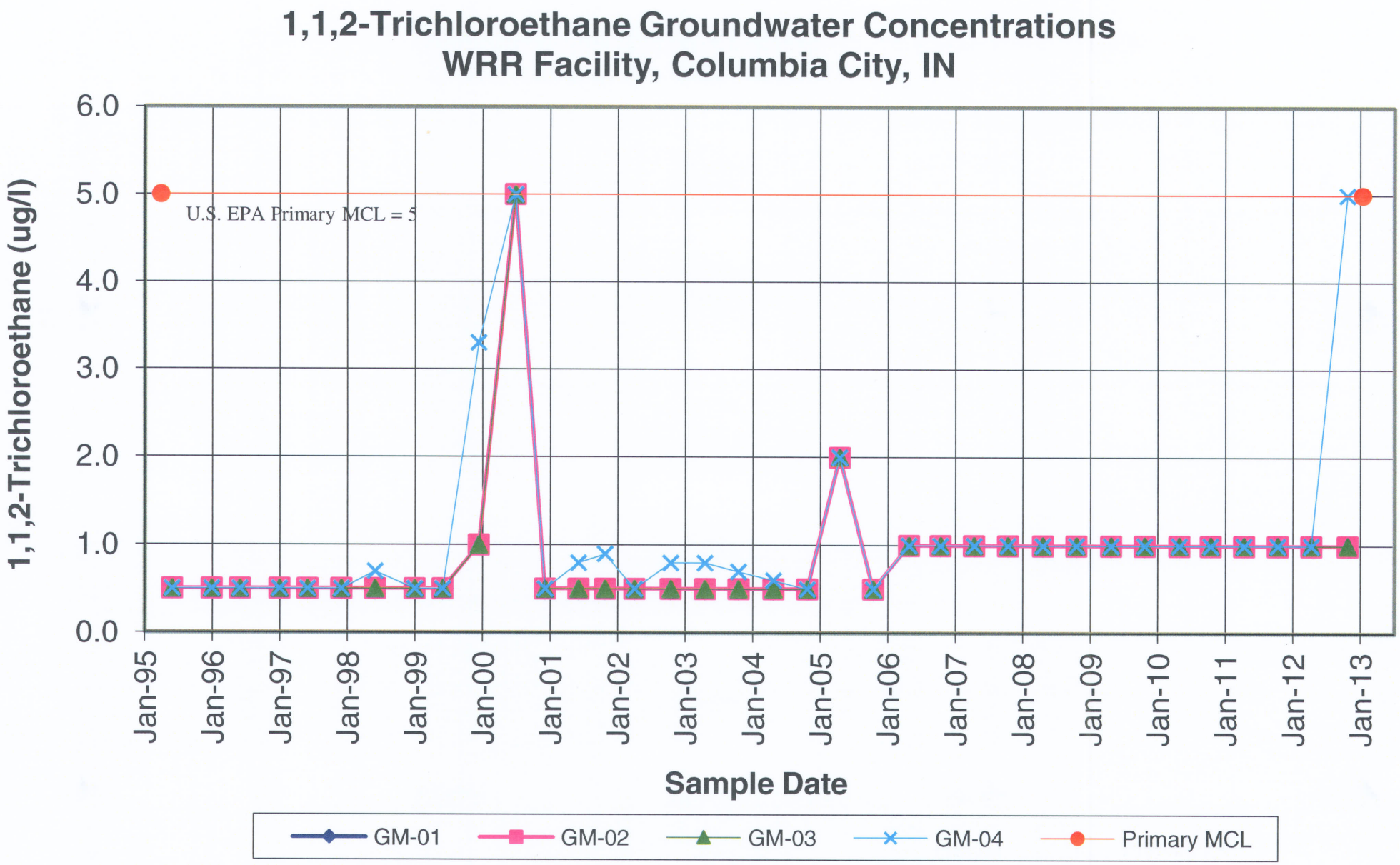

1,1-Dichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
U.S. EPA Primary MCL = 7
1,1-Dichloroethene (ug/l)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL

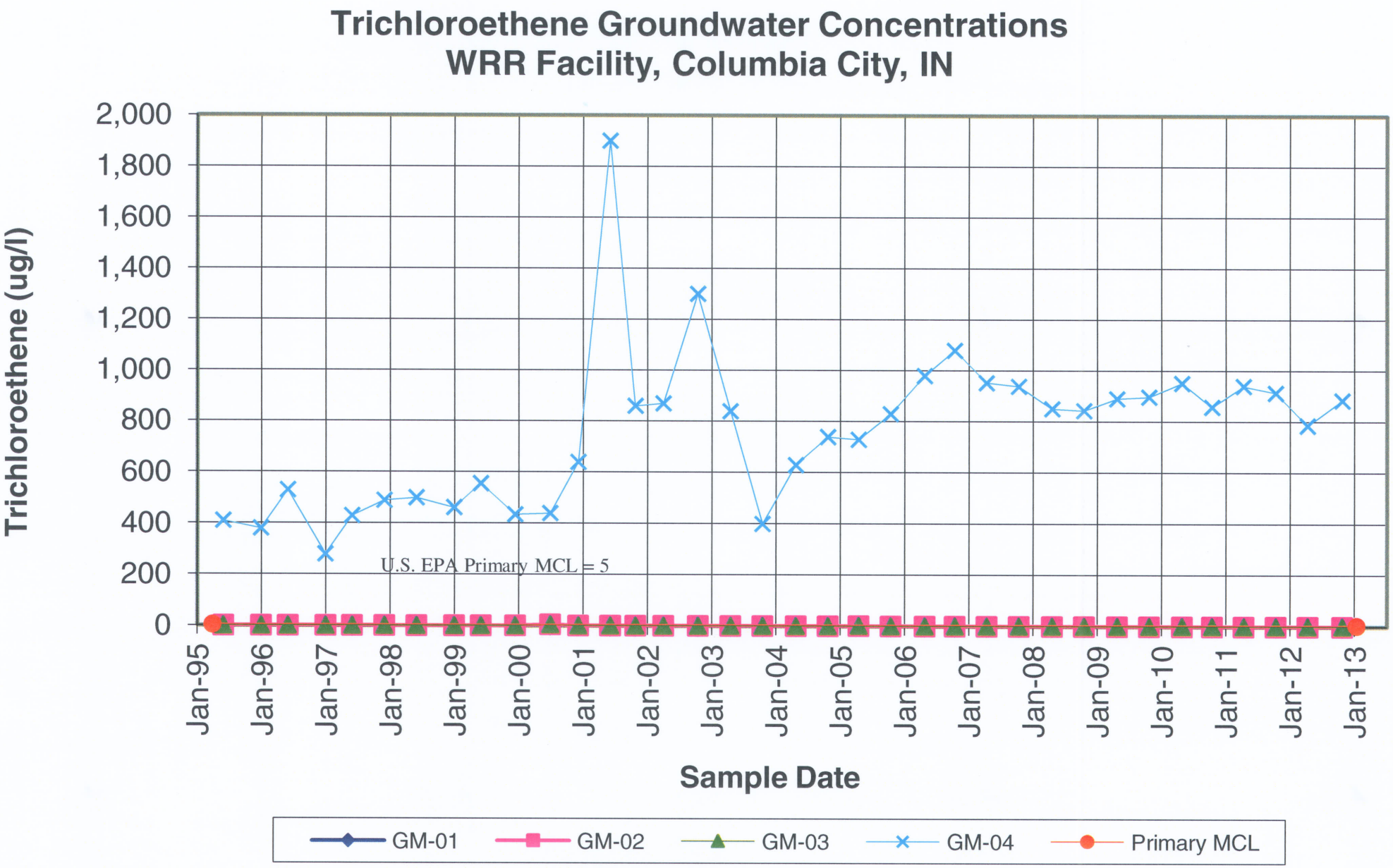

cis-1,2-Dichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
cis-1,2-Dichloroethene (ug/l)
600
500
400
300
200
100
0
U.S. EPA Primary MCL = 70
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL

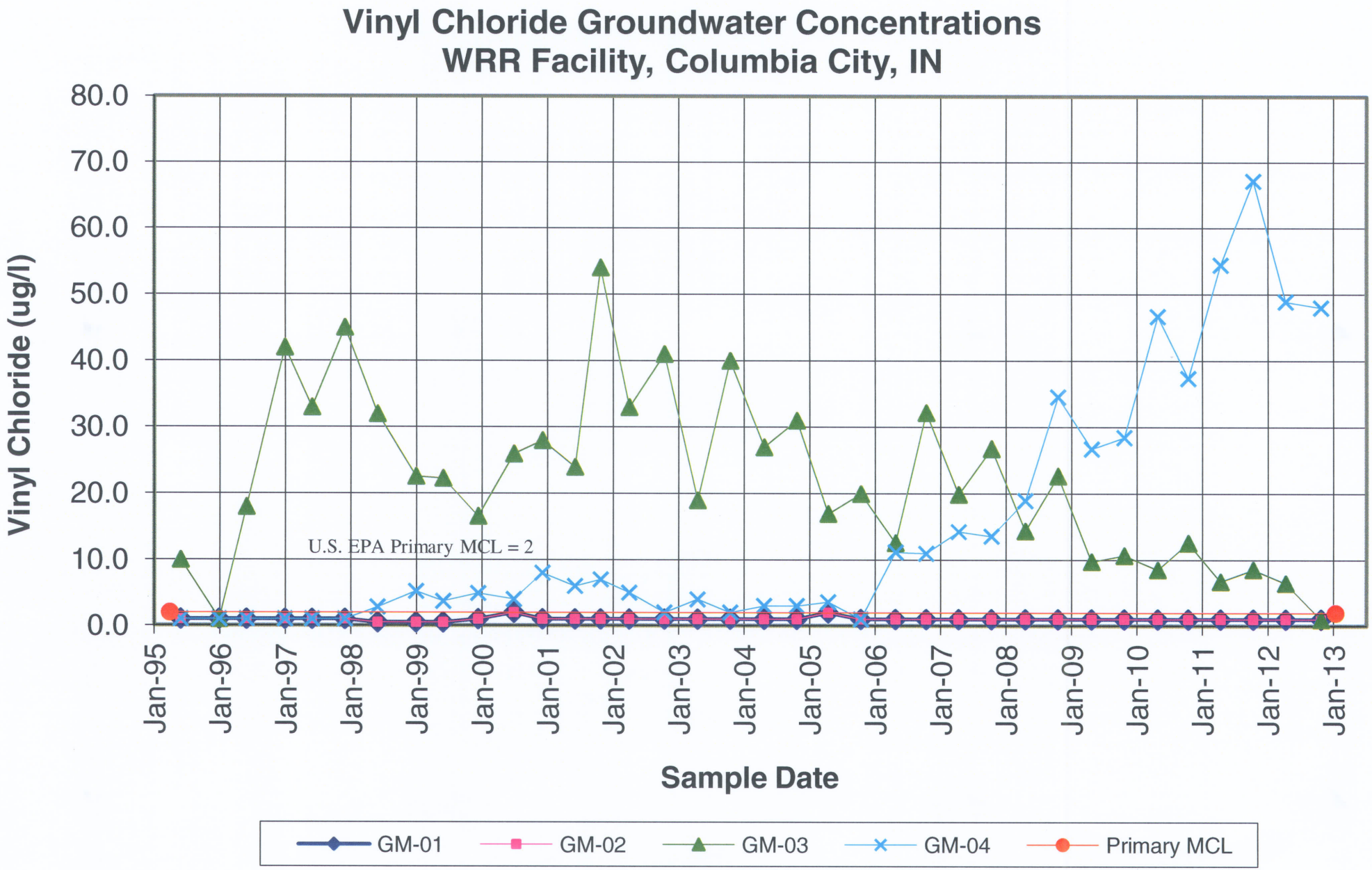

trans-1,2-Dichloroethene Groundwater Concentrations
WRR Facility, Columbia City, IN
U.S. EPA Primary MCL = 100
trans-1,2-Dichloroethene (ug/l)
25.0
20.0
15.0
10.0
5.0
0.0
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL

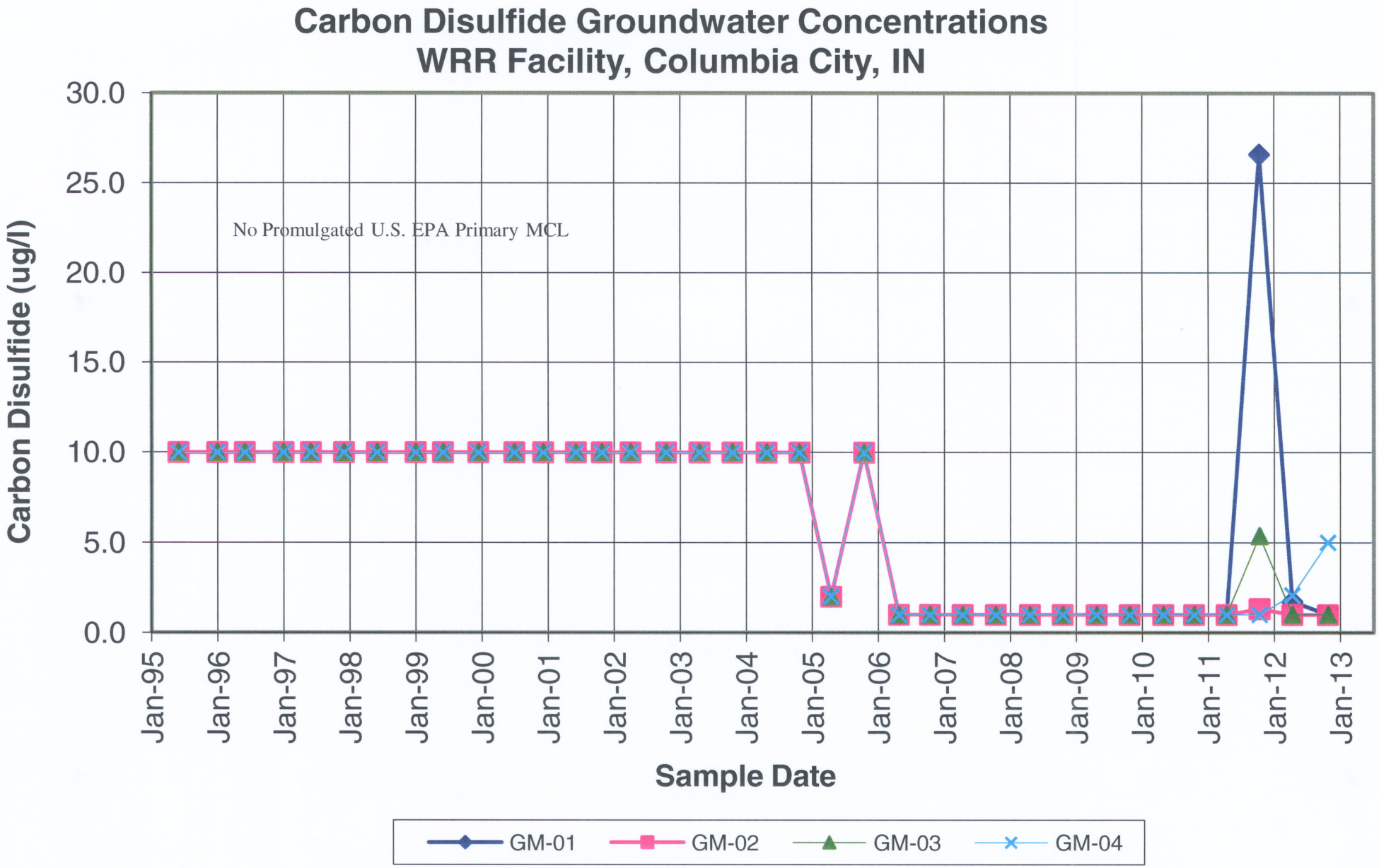

1,2-Dichloropropane Groundwater Concentrations
WRR Facility, Columbia City, IN
1,2-Dichloropropane (ug/l)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
U.S. EPA Primary MCL = 5
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Sample 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
Jan-12
Jan-13
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
Jan-12
Jan-13
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
Jan-12
Jan-13
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)
80.0
70.0
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
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04
Primary MCL


Carbon Disulfide Groundwater Concentrations
WRR Facility, Columbia City, IN
No Promulgated U.S. EPA Primary MCL
Carbon Disulfide (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
Jan-12
Jan-13
Sample Date
GM-01
GM-02
GM-03
GM-04

APPENDIX B

DATA VALIDATION REPORT

APPENDIX B

DATA VALIDATION REPORT
SEMI-ANNUAL PROGRESS REPORT 35

July through December 2012

Wayne Reclamation & Recycling

Groundwater, air, and associated quality control (QC) samples were collected from the Wayne Reclamation & Recycling Site in Columbia City, Indiana between July and December 2012. 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 5030B/8260; dissolved metals (arsenic, barium, cadmium, chromium, lead, nickel, and zinc) by U.S. EPA Method 6010; total cyanide by U.S. EPA Method 335.4; polychlorinated biphenyls (PCBs) by U.S. EPA Method 8082; metals (arsenic, beryllium, cadmium, chromium, copper, lead, molybdenum, nickel, potassium, selenium, silver, and zinc) by U.S. EPA Method 200.7; mercury by U.S. EPA Method 245.1; total suspended solids (TSS) by U.S. EPA Method 160.2; total solids by U.S. EPA Method 160.3; ammonia by U.S. EPA Method 350.1; total Kjeldahl nitrogen by U.S. EPA Method 351.2; nitrogen (NO2/NO3 preserved) by U.S. EPA Method 353.2; total phosphorus by U.S. EPA Method 365.2; chemical oxygen demand by U.S. EPA Method 410.4; total recoverable phenolics by U.S. EPA Method 420.2; surfactants by U.S. EPA Method 5540C; and oil and grease by U.S. EPA Method 1664A. 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 (January 2010), and the laboratory-specific quality control parameters for each analytical method. 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 summary presents the analytical data that either did not meet the QC criteria or were flagged by the analytical laboratory. The data are considered useable without qualification or as qualified below.

Air Samples

SDG 10214017 Results for sample 10214017001 are reported from a serial dilution. Qualifiers were not necessary.

SDG 10199109 Results for sample 10199109001 are reported from a serial dilution. Qualifiers were not necessary.

SDG 10203555 Results for samples 10203555001 and 1282681 are reported from serial dilutions. Qualifiers were not necessary.

SDG 10204952 The result for cis-1,2-DCE in sample AIREFF (09/06/12) is reported from a serial dilution. Concentrations of trichloroethene and vinyl chloride in sample AIREFF (09/06/12) exceeded the calibration range. The reported results for these compounds are estimated (J).

SDG 10210632 Results for samples 10210632001 and 10210632002 are reported from serial dilutions. Qualifiers were not necessary.

SDG 10215522 No comments

Groundwater System Samples

SDG 5072950 The matrix spike (MS) percent recoveries (%Rs) for 123-TCP (112%), bromoform (118%), and cis-13-DCP (118%) exceeded the control limits. Because these compounds were not detected in the investigative samples, the results were not affected by the potentially high bias. Therefore qualifiers were not necessary.

SDG 5066210 The results for cis-1,2-DCE in sample GWEFF were confirmed by historical data. The analyte recovery for 1,2,3-trichloropropane in the LCS exceeded QC limits. The matrix spike and/or matrix spike duplicate recovery for 1,2,3-trichloropropane was outside of laboratory control limits. However, the analyte is present below reporting limits in associated samples. The analyte results are unaffected by high bias. Therefore, qualifiers were not necessary.

SDG 5068088 No comments

SDG 5068917 The laboratory control sample (LCS) percent recovery (%R) for 123-trichloropropane (174%) exceeded the control limits (45 to 121%). Because this compound was not detected in the investigative samples, qualifiers were not necessary.

The MS/MSD %Rs for 123-trichloropropane (142% and 172%) exceeded the control limits (24 to 108%). Because this compound was not detected in the investigative samples, qualifiers were not necessary.

The sample results for cis-12-DCE and TCE were greater than four times the matrix spike amounts. Therefore, the MS/MSD results were not evaluated for these compounds.

SDG 5071202 The sample result for nitrogen-ammonia was greater than four times the matrix spike amounts. Therefore, the MS/MSD result was not evaluated for this compound.

The LCS %R for total phenolics (115%) exceeded the control limits (90-110%). Because this compound was not detected in the investigative sample, qualifiers were not necessary.

SDG 5071232 The sample result for cis-12-DCE was greater than four times the matrix spike amounts. Therefore, the MS/MSD result was not evaluated for this compound.

The MS/MSD RPDs for several compounds were greater than 20. However, the MS/MSD %Rs were within the control limits. Therefore, qualifiers were not necessary.

SDG 5073710 The results for cis-1,2-DCE in sample GWEFF were confirmed by historical data. Qualifiers were not necessary.

Groundwater Monitoring Well Samples

SDG 5071229 The LCS %R for bromodichloromethane (130%) exceeded the control limits (71-124%). Because this compound was not detected in the investigative sample, qualifiers were not necessary.

The LCS %R for hexachloro-1,3-butadiene (134%) exceeded the control limits (64-131%). Because this compound was not detected in the investigative sample, qualifiers were not necessary.

The sample results for cis-12-DCE and VC were greater than four times the matrix spike amounts. Therefore, the MS/MSD results were not evaluated for these compounds.

SDG 5071245 The results for cis-1,2-DCE in sample MW-83AD and the field equipment blank were confirmed by second analysis. Qualifiers were not necessary.

Benzene was not detected at an estimated Reporting Limit (RL) of 5 µg/L, based on the Minimum Detection Limit (MDL) in sample MW-9S.

The sample for methyl-tert-butyl ether in MW-9S was diluted due to the presence of high levels of target analytes. Qualifiers were not necessary.

The analyte recovery of bromodichloromethane in the LCS exceeded QC limits. Because the analyte was not detected, the results are unaffected by high bias. No qualifiers were necessary.

Recovery Well Samples

SDG 5071240 The results for 1,1,1-Trichloroethane for samples RW-1 and RW-3 were confirmed by second analysis.

Analyte recovery for 1,1,1,2-tetrachloroethane, bromodichloromethane, and hexachloro-1,3-butadiene in the LCS exceeded QC limits. Because these compounds were not detected in the associated samples, the results are unaffected by high bias. No qualifiers were necessary.

The MS/MSD sample results for cis-1,2-DCE and vinyl chloride were greater than four times the matrix spike amounts. Therefore, the MS/MSD results were not evaluated for these compounds.

The MS/MSD Relative Percent Difference (RPD) for trichlorofluoromethane was outside of control limits. Because the MS/MSD %Rs were acceptable, qualifiers were not necessary.

Municipal Water Supply Well Samples

SDG 5071236 Chloroform was detected in the field equipment blank, and is a commonly found compound in commercially distributed water. Because, this compound was not detected in the associated samples, qualifiers were not necessary.

The MS/MSD sample results for calcium and cis-1,2-DCE were greater than four times the matrix spike amounts. Therefore, the MS/MSD results were not evaluated for calcium and cis-1,2-DCE.

The MS/MSD RPD for acetone was outside the control limit. Because the MS/MSD %Rs for this compound were within the control limits, qualifiers were not necessary.

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

TLP/BRT
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APPENDIX C

SUMMARY OF MAJOR FIELD ACTIVITIES
JULY THROUGH DECEMBER 2012

APPENDIX C

SUMMARY OF MAJOR FIELD ACTIVITIES
SEMI-ANNUAL PROGRESS REPORT 35

July through December 2012

Wayne Reclamation & Recycling

Date	Description of Field Activities and Events as Provided by InSite
July 2012	• Braze pump cable from recovery well RW-6 • Pull pump at recovery well RW-5, check for motor locked rotor current • Switch pump at recovery well RW-5 and test; clean pump at recovery well RW-6; clean collection line at recovery well RW-6 • Clean pump and collection line at recovery well RW-8
August 2012	• Install clean air filter at blower B-1, mix 100# STP
September 2012	• Service pump at recovery well RW-9 • Adjust phase angle control at recovery well RW-9 • Service pump at recovery well RW-7 • Service pump, complete recovery of heavy solids at recovery well RW-1
October 2012	• Begin well rehabilitation at recovery well RW-3 • New analog cable installed to recovery well RW-9
November 2012	(No major field activities)
December 2012	• Pumps cleaned at recovery wells RW-6, RW-8, and RW-9 • New pump and motor installed at recovery well RW-7

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**	**10/27/10**	**4/12/11**	**10/12/11**	**4/12/12**	**10/24/12**
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	<12.5	<0.92	**3.0**	<0.67	**0.9**
cis-1,2-Dichloroethene	<140	**580**	**190**	<150	**160**	**170 (UB)**	**65**	**290**	**805**	**132**	**222**	**11**	**33**	<13.4	**362**	**13**	**37**	**23**	**47**	**19**	**68**	**29**	**37**
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	<12.5	<0.92	**3.3**	<0.67	**1.6**
4-Ethyltoluene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	<140	<140	<130	<150	**23**	**27**	**22**	< 140	**29**	**28**	**51**	**7.5**	<14.3	<13.4	**32**	**28**	**13**	<12.5	<12.5	**5.4**	**15**	**3.6**	**5.0**
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	<12.5	**1.2**	**5.2**	**0.8**	**1.6**
Trichloroethene	**180**	**440**	**280**	**260**	**360**	**350 (UB)**	**105**	**260**	**197**	**183**	**380**	**28**	**52**	<13.4	**559**	**9.5**	**98.9**	**40.3**	**97.7**	**24.3**	**145**	**18**	**48**
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	<12.5	<0.92	**1.6**	<0.67	**8.3**
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	<12.5	<0.92	<0.67	<0.67	**2.3**
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	<12.5	<0.92	<0.67	**4.0**	**2.1**
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	<32.5	<1.8	**5.7**	<0.67	**5.4**
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

CONSTITUENT	Date Sampled	MONITORING WELL MW-1D (Southeast Area)																			PRG
		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	10/23/10	10/24/11	10/18/12	(µg/L)
VOCs (µg/L)																					
Acetone		ND	ND	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 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*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 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	< 20	< 20	<20	--
n-Butylbenzene		ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 5	< 5	< 5	**768**
Chloroethane		ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	<2	<2	<2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	**4.7**	*< 1*	*< 1*	*< 1*	*< 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	< 1	--
1,1-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 1	**1.7**	< 1	**70**
trans-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	**1.7**	<2	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 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*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 5	< 5	< 5	--
Vinyl Chloride		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4.7**	ND	ND	ND	**1.7**	ND	--
Metals (mg/L)																					
Arsenic, Dissolved		**0.0059**	**0.005**	ND	ND	ND	ND	ND	ND	ND	<0.10	<0.01	< 0.01	< 0.01	< 0.10	< 0.10	<0.10	<0.10	<0.10	<0.10	--
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**	**0.14**	**0.14**	**0.15**	**0.12**	--
Cadmium, Dissolved		ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.03	<0.005	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	<0.03	--
Chromium, Dissolved total		ND	ND	ND	ND	**0.013**	ND	ND	ND	ND	<0.04	**0.0207**	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	<0.04	--
Cyanide, Total		**0.009**	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	--
Lead, Dissolved		ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.08	<0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	<0.08	--
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**	**0.013**	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved		**0.013**	**0.06**	ND	**0.025**	**0.031**	**0.13**	ND	**0.068**	**0.072**	**0.220**	<0.02	**0.0358**	<0.020	**0.052**	<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

-- = 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

CONSTITUENT	Date Sampled	MONITORING WELL MW-3S (Southeast Area)											PRG
		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	**3,650**
Benzene		ND	**1.1**	ND	ND	ND	ND	ND	ND	ND	ND	*<1*	**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	--
Carbon Disulfide		ND	**2.3**	NA	NA	NA	NA	NA	ND	ND	ND	<1	**768**
Chloroethane		ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	<5	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1*	**0.274**
Dibromomethane		ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	<1	--
1,1-Dichloroethane		ND	**23**	ND	ND	**1.5**	ND	ND	ND	ND	ND	<1	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	--
1,1-Dichloroethene		ND	**16**	ND	ND	**1.9**	ND	ND	ND	ND	ND	*<1*	**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**	<1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	**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	**1.43**
Toluene		ND	**3.4**	ND	ND	ND	ND	ND	ND	ND	ND	<1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1*	**0.314**
Trichloroethene		ND	**1.1**	ND	ND	ND	ND	ND	ND	ND	**5.0**	**1.9**	**2.54**
1,2,4-Trimethylbenzene		ND	ND	ND	ND	NA	NA	NA	ND	ND	ND	<1	--
Vinyl Chloride		**1,300**	**430**	**380**	**400**	**260**	**90**	**120**	**310**	**67**	**3.3**	**2.1**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	**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	<0.10	--
Barium, Dissolved		**0.306**	**0.32**	**0.08**	**0.04**	ND	ND	**0.048**	**0.28**	**0.032**	**0.041**	<0.02	--
Cadmium, Dissolved		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.03	--
Chromium, Dissolved total		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.04	--
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	<0.08	--
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	<0.05	--

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).
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**	**(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	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	--
n-Butylbenzene	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
Carbon Disulfide	ND	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	--
Chloroform	**0.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**0.274**
Dibromomethane	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**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	**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	**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	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1.43**
Toluene	ND	ND	ND	**1.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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*	**0.314**
Trichloroethene	ND	ND	ND	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	--
Vinyl Chloride	**2**	**1**	ND	ND	ND	ND	**12**	**15**	**17**	**29**	**33**	**23**	**13**	**7**	**6**	**15**	**18**	**25**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**828**
TOTAL VOCs	**2.7**	**1**	ND	**16.6**	ND	ND	**12**	**15**	**17**	**29**	**33**	**23**	**13**	**7**	**6**	**15**	**18**	**25**	--
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	--
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**	**0.23**	--
Cadmium, Dissolved	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.030	--
Chromium, Dissolved total	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.040	--
Cyanide, Total	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	**0.0071**	--
Lead, Dissolved	NA	ND	ND	**0.0032**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.16**	ND	<0.080	<0.080	--
Nickel, Dissolved	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.011**	ND	ND	ND	<0.010	<0.010	--
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	--

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

	MONITORING WELL MW-4S (Recovery Well RW-4 Area)																		PRG
CONSTITUENT **Date Sampled**	**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**	**10/20/10**	**4/11/11**	**10/23/11**	**4/10/12**	**10/17/12**	**(µg/L)**
VOCs (µg/L)																			
Acetone	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	<20	<20	**3,650**
Benzene	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	*<1*	*<1*	**0.617**
Bromomethane	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene	<1.0	<1.0	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	< 5	< 5	**768**
Chloroethane	<2.0 (J)	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	<2	<2	<2	<2	<2	<2	--
Chloroform	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	**68**	<1.0	< 1	**1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.1**	**1.6**	**2.5**	**70**
trans-1,2-Dichloroethene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**100**
1,2-Dichloroethene, Total	**68**	<1.0	< 1	**1**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.1**	**1.6**	**2.5**	(170)
1,2-Dichloropropane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 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	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	**73**	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**2.54**
1,2,4-Trimethylbenzene	NA	NA	< 5	< 5	< 5	< 5	NA	NA	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**26**	**12**	**8.8**	**7.2**	**8.4**	**5.0**	**5.2**	*< 1*	**3.6**	**3.8**	**7.2**	**2.3**	*< 1*	*< 1*	*< 1*	**1.5**	**2.7**	**2.1**	**0.0283**
Xylenes, Total	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs	**167**	**12**	**8.8**	**8.2**	**8.4**	**5.0**	**5.2**	**0**	**3.6**	**3.8**	**7.2**	**2.3**	**0**	**0**	**0**	**2.6**	**4.3**	**4.6**	--
Metals (mg/L)																			
Arsenic, Dissolved	**0.0201**	**0.0126**	**0.0173**	**0.0173**	< 0.10	**0.0105**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.10	--
Barium, Dissolved	**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**	**0.18**	**0.12**	**0.14**	**0.12**	**0.14**	--
Cadmium, Dissolved	<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	< 0.03	< 0.03	< 0.03	< 0.03	<0.03	--
Chromium, Dissolved total	<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	< 0.04	< 0.04	< 0.04	< 0.04	<0.04	--
Cyanide, Total	<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	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	**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	< 0.08	< 0.08	< 0.08	< 0.08	<0.08	--
Nickel, Dissolved	<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	<0.01	<0.01	<0.01	<0.01	<0.01	--
Zinc, Dissolved	**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	< 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	MONITORING WELL MW-7S (Recovery Well RW-4 Area)																					PRG
Date Sampled	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	10/20/10	10/17/11	10/18/12	(µg/L)
VOCs (µg/L)																						
Acetone	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1	< 20	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5	< 2	< 2	< 2	< 2	< 2	<2	<2	<2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	< 1	< 1	< 1	< 1	< 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	< 1	**3.9**	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1*	*<1*	*< 1*	*< 1*	*< 1*	**2.4**	*< 1*	*< 1*	*< 1*	*< 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**	**427**	**251**	**171**	**70**
trans-1,2-Dichloroethene	NA	NA	**59**	**74**	**55**	**48**	**23**	**10**	**12**	**21**	**21**	**33**	**29**	**18**	**23**	**17**	**20**	**16**	**59**	**31**	**21**	**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**	**486**	**282**	**192**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1	< 1	< 1	< 1	< 1	< 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	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	< 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	< 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	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	**3**	**92**	ND	ND	ND	ND	ND	ND	ND	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	**1**	ND	ND	ND	ND	ND	**6**	ND	ND	ND	*<1*	*<1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1	<1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 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**	**486**	**286**	**192**	**--**
Metals (mg/L)																						
Arsenic, Dissolved	**0.005**	**0.003**	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.10	**0.0118**	< 0.01	< 0.01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.10	--
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**	**0.06**	**0.097**	**0.079**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.03	<0.001	< 0.001	< 0.001	< 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	<0.04	<0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	<0.04	--
Cyanide, Total	ND	**0.016**	**0.095**	ND	ND	ND	ND	ND	ND	ND	ND	**0.006**	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	ND	ND	ND	**0.0099**	ND	ND	ND	ND	ND	ND	ND	<0.08	<0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	<0.08	--
Nickel, Dissolved	ND	ND	ND	**0.06**	ND	ND	ND	ND	**0.006**	ND	ND	<0.01	<0.05	< 0.05	< 0.05	< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	--
Zinc, Dissolved	ND	**0.0263**	ND	**0.02**	ND	ND	ND	**0.22**	ND	ND	ND	<0.05	**0.0272**	< 0.02	< 0.02	< 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
-- = 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	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	PRG (µg/L)
		MONITORING WELL MW-9S (Aboveground Storage Tank Area)																		
VOCs (µg/L)																				
Acetone		ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<20.0	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	--
2-Butanone (MEK)		ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	--
n-Butylbenzene		ND	ND	ND	**4.2**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
Carbon Disulfide		ND	**0.59**	ND	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**768**
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**0.274**
Dibromomethane		ND	ND	NA	**1.8**	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
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**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
1,1-Dichloroethene		ND	**92**	ND	**56**	ND	**15**	**76**	**17**	**51**	**13**	**18**	**67**	**63**	ND	**5**	**8**	**38**	**42**	**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**	**70**
trans-1,2-Dichloroethene		NA	NA	NA	**140**	ND	**200**	NA	**190**	**170**	**95**	NA	**350**	**210**	ND	**75**	**63**	**122**	**145**	**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**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**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	**487**
Tetrachloroethene		ND	**27**	ND	**36**	ND	**78**	**220**	**280**	**250**	**720**	**67**	**37**	**97**	ND	**28**	**46**	**64**	**59**	**1.43**
Toluene		ND	**21**	ND	ND	ND	ND	ND	**9**	**10**	**22**	ND	ND	ND	ND	ND	ND	ND	<1.0	**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**	**200**
1,1,2-Trichloroethane		ND	ND	ND	**3**	ND	ND	ND	**8**	**12**	ND	ND	**6**	ND	ND	ND	ND	ND	**2**	**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**	**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	--
Vinyl Chloride		ND	**480**	**340**	**1,100**	**680**	**200**	**380**	**59**	ND	**72**	**140**	**260**	**140**	ND	**3**	**4**	**122**	**403**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	ND	**7**	ND	ND	ND	ND	ND	ND	ND	<1.0	**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**	--
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	--
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**	--
Cadmium, Dissolved		ND	ND	**271**	ND	ND	ND	ND	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	**0.0052**	ND	ND	ND	ND	ND	ND	<0.040	--
Cyanide, Total		**0.03**	**0.014**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<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	--
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**	--
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	--

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

CONSTITUENT	MONITORING WELL MW-9S (Aboveground Storage Tank Area)																			PRG
Date Sampled	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	4/10/10	10/20/10	4/11/11	10/23/11	4/10/12	10/17/12	(µg/L)
VOCs (µg/L)																				
Acetone	<20.0	<20	<20	< 20	< 100	< 100	< 10000	< 2000	< 2000	< 200	< 20	< 20	< 20	< 200	< 200	< 200	< 200	< 20	<20	**3,650**
Benzene	*<1.0*	**1.4**	*<1.0*	*< 1*	*< 5*	*< 5*	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	*< 1*	*< 1*	*< 10*	*< 10*	*< 10*	*< 10*	*< 1*	*<1*	**0.617**
Bromomethane	NA	<2.0	<2.0	< 2	< 10	< 10	< 1000	< 1000	< 1000	< 100	< 2	< 2	< 2	< 20	< 20	< 20	< 20	< 2	<2	--
2-Butanone (MEK)	<12.5	<20	<20	< 20	< 100	< 100	< 10000	< 2000	< 2000	< 200	< 20	< 20	< 20	< 200	< 200	< 200	< 200	< 20	<20	--
n-Butylbenzene	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 1	< 1	--
Carbon Disulfide	<1.0	<20	<20	< 20	< 100	< 100	*< 10000*	*< 2000*	*< 2000*	< 200	< 20	< 20	< 20	< 200	< 50	< 50	< 50	< 5	< 5	**768**
Chloroethane	<5.0	<2.0 (J)	<2.0	< 2	< 10	< 10	< 1000	< 1000	< 1000	< 100	< 2	< 2	< 2	< 20	< 20	< 20	< 20	< 2	<2	--
Chloroform	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 5*	*< 5*	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	*< 1*	*< 1*	*< 10*	*< 10*	*< 10*	*< 10*	*< 1*	*< 1*	**0.274**
Dibromomethane	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 1	< 1	--
1,1-Dichloroethane	<1.0	**16**	**2.3**	**1.2**	**20**	< 1	< 100	< 100	< 100	< 10	**1.7**	< 1	**3.2**	< 10	< 10	< 10	< 10	< 1	< 1	**973**
1,2-Dichloroethane	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 1	< 1	--
1,1-Dichloroethene	*<1.0*	**94**	**10**	**7**	**150**	**11**	*<500*	*< 100*	**134**	*< 10*	**15**	**17**	**28**	*< 10*	*< 10*	*< 10*	**47**	**9.2**	**31.7**	**0.0167**
cis-1,2-Dichloroethene	**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**	**15,800**	**10,300**	**22,000**	**3,440**	**22,100**	**70**
trans-1,2-Dichloroethene	**252**	**310**	**84**	**36**	**390 (J)**	**78**	*<500*	< 100	< 100	< 10	85	48	**181 J**	**105**	**227**	**79**	**144**	**58**	**161**	**100**
1,2-Dichloroethene, Total	**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**	**16,027**	**10,379**	**22,144**	**3,498**	**22,261**	(170)
1,2-Dichloropropane	**3**	<1.0	<1.0	< 1	< 5	< 5	*< 500*	*< 100*	*< 100*	*< 10*	< 1	< 1	< 1	*< 10*	*< 10*	*< 10*	*< 10*	< 1	< 1	**1.25**
Ethylbenzene	<1.0	<1.0	<1.0	< 1	< 5	< 5	< 500	< 100	< 100	< 10	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	<12.5	<20	<20	< 20	< 100	< 100	*< 10000*	*< 2000*	*< 2000*	< 200	< 20	< 20	< 20	< 200	< 200	< 200	< 200	< 20	< 20	**487**
Tetrachloroethene	**106**	**180**	**33**	**12**	**190**	**34**	*<500*	*< 100*	*< 100*	*< 10*	**5.5 J**	**12**	**1.8**	*< 10*	*< 10*	*< 10*	*< 10*	**9.5**	**24.8**	**1.43**
Toluene	**2**	**4**	<1.0	< 1	**6**	< 1	< 100	< 100	< 100	< 10	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 1	< 1	**1,000**
1,1,1-Trichloroethane	**10**	**11**	**1**	**2**	**10**	**1**	*<500*	*< 100*	*< 100*	< 10	< 1	< 1	< 1	< 10	< 10	< 10	< 10	< 1	< 1	**200**
1,1,2-Trichloroethane	**5**	**5**	*<1.0*	*< 1*	*< 5*	*< 5*	*< 500*	*< 100*	*< 100*	*< 10*	*< 1*	*< 1*	*< 1*	*< 10*	*< 10*	*< 10*	*< 10*	*< 1*	*< 1*	**0.314**
Trichloroethene	**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**	**1,020**	**894**	**5,700**	**1,240**	**6,960**	**2.54**
1,2,4-Trimethylbenzene	<1.0	NA	NA	< 5	< 25	< 25	< 2500	NA	< 500	< 50	< 5	< 5	< 5	< 50	< 50	< 50	< 50	< 5	< 5	--
Vinyl Chloride	**396**	**220**	**38**	**16**	**420 (J)**	**26**	*<500*	**135**	**157**	*< 10*	**106**	**139**	**257**	**218**	**87**	**117**	**460**	**54**	**259**	**0.0283**
Xylenes, Total	<1.0	**3**	<1.0	< 1	< 5	< 5	< 500	< 100	< 200	< 20	< 2	< 2	< 2	< 20	< 20	< 20	< 20	< 2	< 2	**828**
TOTAL VOCs	**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**	**17,134**	**11,390**	**28,351**	**4,810**	**29,537**	--
Metals (mg/L)																				
Arsenic, Dissolved	< 0.10	< 0.10	< 0.10	< 0.01	**0.0103**	< 0.01	< 0.01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.10	--
Barium, Dissolved	**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**	**0.065**	**0.037**	**0.082**	**0.044**	**0.07**	--
Cadmium, Dissolved	<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	< 0.03	< 0.03	< 0.03	< 0.03	<0.03	--
Chromium, Dissolved total	<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	< 0.04	< 0.04	< 0.04	< 0.04	<0.04	--
Cyanide, Total	<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	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	<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	< 0.08	< 0.08	< 0.08	< 0.08	<0.08	--
Nickel, Dissolved	**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	<0.01	<0.01	<0.01	<0.01	<0.01	--
Zinc, Dissolved	<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	< 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-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**	**(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	**3,650**
Benzene	ND	**7**	ND	**1.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**0.617**
Bromomethane	ND	ND	ND	**4.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	--
n-Butylbenzene	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**4.5**	--
Carbon Disulfide	ND	ND	ND	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**768**
Chloroethane	ND	ND	ND	**2.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**0.274**
Dibromomethane	ND	ND	NA	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
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	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
1,1-Dichloroethene	ND	**20**	ND	ND	ND	ND	ND	ND	ND	**6.8**	ND	ND	ND	ND	**1.4**	**2.6**	*<1.0*	*<1.0*	**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**	**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**	**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**	(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	**1.25**
Ethylbenzene	ND	**4**	ND	**5.7**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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*	**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**	**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	--
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**	**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	**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**	--
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	--
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	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<0.030	<0.030	--
Chromium, Dissolved total	**0.017**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<0.040	<0.040	--
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**	--
Lead, Dissolved	ND	ND	ND	ND	**0.0028**	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	NA	<0.080	<0.080	--
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**	--
Zinc, Dissolved	ND	**0.0089**	ND	ND	ND	ND	ND	ND	ND	**0.34**	ND	ND	ND	ND	ND	NA	<0.050	<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).
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

CONSTITUENT Date Sampled	MONITORING WELL MW-10S (Southeast Area)										PRG
	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	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	<1.0	<1.0	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 5	**768**
Chloroethane	<2.0 (J)	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
Chloroform	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	<1.0	**1.2**	< 1	**2.8**	< 1	< 1	**2.9**	**2.9**	<1	< 1	**973**
1,2-Dichloroethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	**1,100**	**1,400**	**330**	**1,500**	**420**	**240**	**976**	**70**	**15**	**254**	**70**
trans-1,2-Dichloroethene	**130**	**100**	**26**	**65**	**47**	**22**	**77**	**10**	**2**	**59**	**100**
1,2-Dichloroethene, Total	**1,230**	**1,500**	**356**	**1,565**	**467**	**262**	**1,053**	**79**	**17**	**313**	(170)
1,2-Dichloropropane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	<1.0	<1.0	< 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	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	**12**	**2.7**	< 1	**2**	**1.8**	< 1	**5.7**	< 1	< 1	**1.9**	**2.54**
1,2,4-Trimethylbenzene	NA	NA	< 5	< 5	< 5	NA	<5	<5	<5	< 5	--
Vinyl Chloride	**8.5**	**4**	**1.4**	**81**	**2**	**1.3**	**13.9**	*< 1*	*< 1*	**17.5**	**0.0283**
Xylenes, Total	<1.0	<1.0	< 1	< 1	< 1	< 1	<3	<3	<3	< 2	**828**
TOTAL VOCs	**1,251**	**1,508**	**357**	**1,651**	**471**	**264**	**1,076**	**82**	**17**	**332**	--
Metals (mg/L)											
Arsenic, Dissolved	**0.0242**	**<0.0100**	**0.0107**	< 0.01	< 0.01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	--
Barium, Dissolved	**0.0324**	**0.0686**	**0.0539**	< 0.02	**0.0472**	**0.081**	**0.05**	**0.069**	**0.05**	**0.025**	--
Cadmium, Dissolved	<0.005	<0.00100	< 0.001	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	<0.03	<0.03	--
Chromium, Dissolved total	**0.00849**	**<0.0100**	< 0.01	< 0.01	< 0.01	< 0.04	< 0.04	< 0.04	<0.04	<0.04	--
Cyanide, Total	**0.0381**	**0.0128**	**0.108**	< 0.005	< 0.005	**0.2**	**< 0.005**	**0.028**	**0.039**	**0.011**	--
Lead, Dissolved	<0.005	<0.00500	< 0.005	< 0.005	< 0.005	< 0.08	< 0.08	< 0.08	<0.08	<0.08	--
Nickel, Dissolved	**0.0218**	**<0.0500**	< 0.05	< 0.05	< 0.05	< 0.01	**0.01**	**0.01**	<0.01	<0.01	--
Zinc, Dissolved	**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

CONSTITUENT	Date Sampled	MONITORING WELL MW-11S (Southeast Area)																PRG
		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	(µg/L)
VOCs (µg/L)																		
Acetone		ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	--
2-Butanone (MEK)		ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	--
n-Butylbenzene		ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	--
Carbon Disulfide		ND	ND	ND	NA	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	**768**
Chloroethane		ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 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-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**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**2.0**	*< 1*	**3.1**	**0.0167**
cis-1,2-Dichloroethene		NA	NA	ND	**280**	**150**	**200**	**170**	**160**	**440**	**460**	**669**	**694**	**746**	**490**	**400**	**460**	**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**	**100**
1,2-Dichloroethene, Total		**44**	**19**	ND	**295**	**157**	**210**	**180**	**160**	**440**	**472**	**685**	**703**	**746**	**496**	**408**	**479**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 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	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	**1.5**	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 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	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 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**	**2.54**
1,2,4-Trimethylbenzene		ND	ND	NA	ND	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	--
Vinyl Chloride		**4**	**3**	**20**	**18**	**12**	**14**	**18**	**64**	**190**	**160**	**112**	**120**	**138**	**2.2**	**5.1**	**78**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	**828**
TOTAL VOCs		**48**	**22**	**20**	**336**	**192**	**236**	**209**	**232**	**635**	**644**	**816**	**833**	**894**	**508**	**437**	**564**	--
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	--
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**	--
Cadmium, Dissolved		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	--
Chromium, Dissolved total		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	--
Cyanide, Total		ND	**0.04**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.005	<0.00500	< 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	--
Nickel, Dissolved		ND	ND	ND	ND	**0.03**	ND	ND	ND	ND	**0.006**	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	--
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	--

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-11S (Southeast Area)						PRG
		10/17/07	10/16/08	10/13/09	10/20/10	10/17/11	10/18/12	(µg/L)
VOCs (µg/L)								
Acetone		< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene		*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane		< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)		< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene		< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane		< 2	< 2	<2	<2	<2	<2	--
Chloroform		*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		< 1	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane		< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		**5.2**	**4.1**	**3.5**	**4.5**	**4.2**	**4.1**	**0.0167**
cis-1,2-Dichloroethene		**483**	**376**	**299**	**410**	**281**	**258**	**70**
trans-1,2-Dichloroethene		< 1	**3.5**	**1.8**	< 1	**1.1**	<1	**100**
1,2-Dichloroethene, Total		**483**	**380**	**301**	**410**	**282**	**258**	(170)
1,2-Dichloropropane		< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		< 1	< 1 J	< 1	< 1	< 1	< 1	**1.43**
Toluene		< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane		*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		**1.2**	**1.1**	< 1	< 1	< 1	<1	**2.54**
1,2,4-Trimethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		**104**	**130**	**95**	**192**	**157**	**120**	**0.0283**
Xylenes, Total		< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs		**593**	**515**	**400**	**607**	**443**	**382**	--
Metals (mg/L)								
Arsenic, Dissolved		< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10	--
Barium, Dissolved		**0.0780**	**0.0850**	**0.065**	**0.057**	**0.06**	**0.055**	--
Cadmium, Dissolved		< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total		< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total		< 0.005	< 0.005	<0.005	<0.005	<0.005	<0.005	--
Lead, Dissolved		< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved		< 0.01	< 0.01	<0.01	<0.01	<0.01	<0.01	--
Zinc, Dissolved		< 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
-- = 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	10/23/10	10/25/11	10/17/12	(µg/L)
VOCs (µg/L)																
Acetone		ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane		ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)		ND	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane		ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	<2	<2	<2	--
Chloroform		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*1.5*	< 1	**0.0167**
cis-1,2-Dichloroethene		NA	**350**	**200**	**214**	**128**	**87**	**75**	**51**	**66**	**36**	**38**	**28**	**17**	**21**	**70**
trans-1,2-Dichloroethene		NA	**12**	**6.4**	**6.1**	**3.3**	**1.9**	**2.4**	<1	<1	**1.6**	< 1	< 1	< 1	<1	**100**
1,2-Dichloroethene, Total		**28**	**362**	**206**	**220**	**131**	**89**	**77**	**51**	**66**	**37**	**38**	**28**	**17**	**21**	(170)
1,2-Dichloropropane		ND	**17**	**8.7**	**13**	**7.1**	<1.0	**10**	**5.6**	**5.1**	**5.1**	**8.8**	< 1	**4.4**	**6.1**	**1.25**
Ethylbenzene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)		ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	**152**	**140**	**181**	**99.3**	**120**	**270**	**37**	**125**	**150**	**31**	**67**	**120**	**53**	**2.54**
1,2,4-Trimethylbenzene		ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		ND	**9.4**	**12**	**8.4**	**17.6**	**13**	**2.9**	**13**	**8.9**	**3.1**	**18**	**20**	**4.2**	**12.3**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs		**28**	**540**	**367**	**423**	**255**	**222**	**360**	**107**	**205**	**195**	**96**	**115**	**147**	**92**	--
Metals (mg/L)																
Arsenic, Dissolved		**0.0036**	ND	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 100	< 100	<0.10	<0.10	<0.10	<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**	**0.16**	**0.13**	**0.11**	--
Cadmium, Dissolved		ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 30	< 30	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total		ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 40	< 40	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total		**0.048**	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005	NA	NA	--
Lead, Dissolved		ND	ND	**0.16**	ND	<0.080	<0.00500	< 0.005	< 0.005	< 80	< 80	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved		**0.0167**	ND	ND	ND	<0.010	<0.0500	< 0.05	**0.0104**	< 10	< 10	**0.013**	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved		**0.0542**	ND	ND	**0.054** (J)	<0.050	<0.0200	< 0.02	< 0.02	< 50	< 50	< 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

-- = 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**	**(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	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	NA	--
2-Butanone (MEK)	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	<12.5	--
n-Butylbenzene	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
Carbon Disulfide	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**0.274**
Dibromomethane	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	--
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**	**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	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	**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	**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	**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	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1.43**
Toluene	ND	ND	ND	**1.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**1,000**
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**	**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*	**0.314**
Trichloroethene	ND	ND	**5.5**	**10**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**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	--
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*	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**828**
TOTAL VOCs	**1,066**	**209**	**402**	**329**	**167**	**172**	**74**	**63**	**24**	**21**	**12**	**13**	**20**	**23**	**13**	**16**	**24**	**13**	--
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	--
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**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.030	<0.030	--
Chromium, Dissolved total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.040	<0.040	--
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	--
Lead, Dissolved	ND	ND	ND	**0.0065**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	ND	<0.080	<0.080	--
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	--
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	--

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.

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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-14S (Aboveground Storage Tank Area)																		PRG
	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	10/20/10	4/11/11	10/23/11	4/10/12	10/17/12	(µg/L)
VOCs (µg/L)																			
Acetone	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene	<1.0	<1.0	<1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	< 5	< 5	**768**
Chloroethane	<2.0 (J)	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	**16**	<2	<2	<2	**38**	<2	<2	<2	<2	--
Chloroform	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**4.9**	**13**	**6.8**	**12**	**2.5**	**3.8**	**7.9**	**11**	**11**	**22**	**11**	**31**	**24 J**	**37**	**26**	**36**	**20**	**14**	**973**
1,2-Dichloroethane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	**1**	**2**	**1**	**2**	**2**	**3**	< 1	**2.3**	**1.5**	**1.9**	**70**
trans-1,2-Dichloroethene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 J	< 1	*< 1*	*< 1*	*< 1*	*<1*	**100**
1,2-Dichloroethene, Total	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2**	**1**	**2**	**2**	**3**	< 1	**2.3**	**1.5**	**1.9**	(170)
1,2-Dichloropropane	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 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	< 20	< 20	< 20 J	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	**4.3**	**10**	**10**	**6.8**	**1.5**	< 1	**2.2**	**5.6**	**2.7**	< 1	**3.5**	**2.6**	<1.0	<1.0	**4.9**	**1.5**	< 1	< 1	**200**
1,1,2-Trichloroethane	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	**3.0**	<1.0	< 1	< 1	< 1	< 1	< 1	**1.9**	*< 1*	*< 1*	*< 1*	< 1	< 1	< 1	< 1	< 1	< 1	<1	**2.54**
1,2,4-Trimethylbenzene	NA	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**3.4**	<1.0	**2.5**	*<1.0*	**5.9**	*<1.0*	**2.3**	**1.6**	*<1.0*	**0.0283**
Xylenes, Total	**1.3**	<1.0	< 1	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs	**14**	**23**	**17**	**19**	**4.0**	**3.8**	**10**	**19**	**14**	**43**	**16**	**38**	**26**	**84**	**30**	**42**	**23**	**16**	--
Metals (mg/L)																			
Arsenic, Dissolved	**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	<0.10	<0.10	<0.10	<0.10	<0.10	--
Barium, Dissolved	**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**	**0.067**	**0.037**	**0.052**	**0.048**	**0.048**	--
Cadmium, Dissolved	<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	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	--
Chromium, Dissolved total	<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	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	--
Cyanide, Total	<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	<0.005	<0.005	<0.005	<0.005	<0.005	--
Lead, Dissolved	<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	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	--
Nickel, Dissolved	**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	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved	**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	< 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**	**10/21/10**	**10/17/11**	**10/18/12**	**(µg/L)**
VOCs (µg/L)																		
Acetone	ND	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)	ND	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene	NA	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	NA	NA	ND	ND	ND	ND	<1.0	<20	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane	ND	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	<2	<2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 1	--
1,1-Dichloroethane	**6**	**5.8**	**4.9**	ND	ND	**1.5**	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 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	< 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	< 1	< 1	<2	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	**65**	**5.8**	**11**	**145**	**14**	**93**	**13**	**8.5**	**34**	**7.6**	**14**	**3.6**	**1.8**	**2.4**	**1.1**	**2.54**
1,2,4-Trimethylbenzene	NA	ND	ND	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 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	*<1.0*	*<1.0*	*<1.0*	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs	**16**	**48**	**116**	**6**	**11**	**182**	**20**	**106**	**16**	**14**	**37**	**8**	**14**	**3.6**	**1.8**	**2.4**	**1.1**	--
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	<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**	**0.059**	**0.062**	**0.063**	--
Cadmium, Dissolved	**0.015**	ND	ND	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 0.03	< 0.03	< 0.03	< 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	< 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	<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	< 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	< 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	< 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	10/20/10	10/23/11	10/18/12	(µg/L)
VOCs (µg/L)																					
Acetone		ND	NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 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*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 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	< 20	< 20	<20	--
n-Butylbenzene		NA	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 5	< 5	< 5	**768**
Chloroethane		ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	**2.6**	< 2	< 2	<2	<2	<2	<2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 1	--
1,1-Dichloroethane		**55**	**85**	**26**	**58**	**37**	**38**	ND	**6.1**	**30**	**63**	**26**	**21**	**35**	**26**	**21**	**12**	**15**	**12**	**13**	**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	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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**	**52**	**32**	**34**	**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**	< 1	1	**1.4**	**100**
1,2-Dichloroethene, Total		**41**	**190**	**51**	**80**	**130**	**93**	**93**	**19**	**90**	**158**	**75**	**94**	**115**	**77**	**59**	**39**	**52**	**33.3**	**36**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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**	**16**	**3.8**	**4.7**	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 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	< 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**	**4.2**	**5.1**	**4.1**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs		**204**	**327**	**97**	**157**	**251**	**153**	**93**	**27**	**146**	**280**	**147**	**136**	**204**	**139**	**107**	**59**	**87**	**54**	**58**	--
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	<0.10	<0.10	<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**	**0.036**	**0.038**	**0.039**	--
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	< 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	< 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	<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	< 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	< 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	< 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

CONSTITUENT Date Sampled	MONITORING WELL MW-83AS (Southeast Area)																		PRG
	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	(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	**3,650**
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	--
2-Butanone (MEK)	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<12.5	--
n-Butylbenzene	ND	ND	NA	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
Carbon Disulfide	ND	ND	ND	NA	NA	NA	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**768**
Chloroethane	ND	ND	ND	ND	ND	**5.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	**0.274**
Dibromomethane	ND	ND	NA	ND	ND	ND	NA	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
1,1-Dichloroethane	ND	ND	ND	**48**	**72**	**51**	**56**	ND	**42**	**39**	**43**	**38**	**26**	ND	**31**	**29.1**	**33.3**	**18.1**	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	**4.1**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**0.0167**
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**	**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**	**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**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**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	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**1.43**
Toluene	ND	**0.7**	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	<1.0	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**0.314**
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**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	--
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**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	**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**	--
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	--
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**	--
Cadmium, Dissolved	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	<0.040	--
Cyanide, Total	ND	**0.022**	**0.006**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<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	--
Nickel, Dissolved	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.002**	ND	ND	ND	ND	<0.010	--
Zinc, Dissolved	ND	**0.0054**	ND	ND	ND	**0.041**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.063**	<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).
[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 Date Sampled	MONITORING WELL MW-83AS (Southeast Area)																			PRG
	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	10/20/10	4/11/11	10/23/11	4/10/12	10/17/12	(µg/L)
VOCs (µg/L)																				
Acetone	<20.0	<20	<20	< 20	< 20	< 20	**27**	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane	NA	<2.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	<1.0	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	< 5	< 5	**768**
Chloroethane	<5.0	<2.0 (J)	<2.0	**2.3**	**2.1**	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
Chloroform	*<1.0*	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	**23.7**	**21**	**23**	**24**	**19**	**14**	**17**	**14**	**16**	**16**	**13**	**10**	**13**	**12**	**14**	**14**	**17**	**17**	**21**	**973**
1,2-Dichloroethane	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	<1.0	<1.0	<1.0	**1.5**	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	**839**	**700**	**800**	**800**	**570**	**360**	**430**	**435**	**406**	**331**	**240**	**247**	**294**	**251**	**364**	**321**	**277**	**368**	**670**	**70**
trans-1,2-Dichloroethene	<1.0	**1.6**	**1.5**	**2.2**	**1.3**	< 1	**2.6**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**100**
1,2-Dichloroethene, Total	**839**	**702**	**802**	**802**	**571**	**360**	**433**	**435**	**406**	**331**	**240**	**247**	**294**	**251**	**364**	**321**	**277**	**368**	**670**	(170)
1,2-Dichloropropane	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	<12.5	<20	<20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**0.314**
Trichloroethene	<1.0	**1.0**	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**2.54**
1,2,4-Trimethylbenzene	<1.0	NA	NA	< 5	< 5	< 5	< 5	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**486**	**370**	**640**	**670**	**520**	**660**	**540**	**900**	**620**	**437**	**619**	**626**	**282**	**280**	**333**	**316**	**260**	**293**	**341**	**0.0283**
Xylenes, Total	<1.0	<1.0	<1.0	< 1	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs	**1,349**	**1,094**	**1,465**	**1,500**	**1,112**	**1,034**	**1,017**	**1,349**	**1,042**	**784**	**872**	**883**	**589**	**543**	**711**	**651**	**554**	**678**	**1,032**	--
Metals (mg/L)																				
Arsenic, Dissolved	<0.100	<0.0100	<0.0100	**0.0123**	< 0.01	< 0.01	< 0.01	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<0.10	--
Barium, Dissolved	**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**	**0.078**	**0.66**	**0.070**	**0.064**	**0.075**	--
Cadmium, Dissolved	<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	< 0.03	< 0.03	< 0.03	< 0.03	<0.03	--
Chromium, Dissolved total	<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	< 0.04	< 0.04	< 0.04	< 0.04	<0.04	--
Cyanide, Total	**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	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	--
Lead, Dissolved	<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	< 0.08	< 0.08	< 0.08	< 0.08	<0.08	--
Nickel, Dissolved	<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	< 0.01	< 0.01	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved	<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	< 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.

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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-83AD (Southeast Area)																					PRG
		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	10/20/10	10/23/11	10/18/12	(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	< 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*	*< 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	< 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	< 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	< 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	< 5	< 5	< 5	**768**
Chloroethane		ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 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*	*< 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	< 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	< 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	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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**	**24**	**2.4**	**3.7**	**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	< 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**	**24**	**2.4**	**3.7**	(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	< 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	< 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	< 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	< 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	< 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	< 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*	*< 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	< 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	< 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**	**18**	**1.7**	*<1.0*	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 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**	**42**	**4.1**	**4**	--
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	< 0.10	< 0.10	<0.10	<0.10	<0.10	<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**	**0.11**	**0.14**	**0.12**	--
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	< 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	< 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	<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	< 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	< 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	< 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**	**10/20/10**	**10/23/11**	**10/18/12**	**(µg/L)**
VOCs (µg/L)																				
Acetone	**270**	ND	ND	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 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*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 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	< 20	< 20	<20	--
n-Butylbenzene	ND	NA	ND	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 5	< 5	< 5	**768**
Chloroethane	ND	ND	ND	NA	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	<2	<2	<2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 1	--
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	**3.8**	< 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	< 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	< 1	< 1	<2	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 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*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 5	< 5	< 5	--
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs	**293**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3.8**	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	< 0.10	< 0.10	<0.10	<0.10	<0.10	<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**	**0.15**	**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	< 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	< 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	<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	< 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	< 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	< 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	MONITORING WELL MW-83DS (Formerly GW-83E; Southeast Area)														PRG
Date Sampled	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	10/23/10	10/25/11	10/17/12	(µg/L)
VOCs (µg/L)															
Acetone	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	**3,650**
Benzene	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*<1*	**0.617**
Bromomethane	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	<2	--
2-Butanone (MEK)	ND	NA	NA	NA	**14.4**	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	<20	--
n-Butylbenzene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	<2	<2	<2	<2	--
Chloroform	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.274**
Dibromomethane	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane	ND	**1.1**	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethene	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	ND	**191**	**350**	**320**	**239**	**190**	**110**	**79**	**66**	**47**	**44**	**41**	**17**	**22**	**70**
trans-1,2-Dichloroethene	ND	**1.1**	ND	ND	**1.1**	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**100**
1,2-Dichloroethene, Total	ND	**192**	**350**	**320**	**240**	**190**	**110**	**79**	**66**	**47**	**44**	**41**	**17**	**22**	(170)
1,2-Dichloropropane	ND	ND	ND	**1.0**	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1,000**
1,1,1-Trichloroethane	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	<1	**2.54**
1,2,4-Trimethylbenzene	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	ND	**16**	**120**	**188**	**80**	**76**	**54**	**31**	**44**	**36**	**28**	**30**	**1.1**	**15.4**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 2	**828**
TOTAL VOCs	ND	**209**	**470**	**509**	**334**	**266**	**164**	**110**	**110**	**82**	**72**	**71**	**18**	**38**	--
Metals (mg/L)															
Arsenic, Dissolved	**0.003**	ND	ND	ND	<0.100	<0.0100	< 0.01	< 0.01	< 100	< 100	<0.10	<0.10	<0.10	<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**	**0.13**	**0.061**	**0.077**	--
Cadmium, Dissolved	ND	ND	ND	ND	<0.030	<0.00100	< 0.001	< 0.001	< 30	< 30	< 0.03	< 0.03	< 0.03	<0.03	--
Chromium, Dissolved total	ND	ND	ND	ND	<0.040	<0.0100	< 0.01	< 0.01	< 40	< 40	< 0.04	< 0.04	< 0.04	<0.04	--
Cyanide, Total	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	NA	--
Lead, Dissolved	ND	ND	**0.16**	ND	<0.080	<0.00500	< 0.005	< 0.005	< 80	< 80	< 0.08	< 0.08	< 0.08	<0.08	--
Nickel, Dissolved	ND	ND	ND	ND	<0.010	<0.0500	< 0.05	< 0.05	< 10	< 10	< 0.01	< 0.01	< 0.01	<0.01	--
Zinc, Dissolved	ND	**0.062**	ND	ND	<0.050	<0.0200	< 0.02	**0.0258**	< 50	< 50	< 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
-- = 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		10/20/2010		10/12/2011		10/23/2012	
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**	**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	< 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	< 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	< 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	< 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	< 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	< 20	< 20	< 5	< 5	< 5	< 5
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	< 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	< 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	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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 1	< 1	< 2	< 2	< 2	< 2
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	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	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	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	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	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	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	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		10/20/2010		10/12/2011		10/23/2012	
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**	**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	<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	<0.006	<0.006	<0.006	<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	<0.010	<0.010	**0.0103**	<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**	**0.158**	**0.137**	**0.166**	**0.143**	**0.164**	**0.138**
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	<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	<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**	**86.2**	**79.4**	**86.2**	**79.8**	**89.3**	**81.6**
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	<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	<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	<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**	**1.93**	**1.54**	**1.97**	**1.59**	**1.99**	**1.60**
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	<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**	**34.9**	**34.1**	**35.1**	**34.3**	**35.2**	**34.2**
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**	**0.119**	**0.131**	**0.126**	**0.139**	**0.123**	**0.135**
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	<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	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	<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**	**1.9**	**2.06**	**1.8**	**2**	**1.76**	**1.90**
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	<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	<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**	**14.4**	**18.3**	**14.9**	**18.4**	**15.1**	**18.6**
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	<0.002	<0.002	<0.000001	<0.010	<0.010	<0.010
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	<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	<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	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	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	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	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	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	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	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	<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	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	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	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	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	10/22/2010	10/25/2011	10/17/2012	(µg/L)
VOCs (µg/L)																			
Acetone		NA	NA	NA	NA	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	ND	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane		ND	**2.4**	**2.2**	**3.7**	ND	ND	ND	<5.0	**2.4**	< 2	< 2	< 2	11.3	**4.7**	**22**	**8.8**	<2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**3.0**	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
1,1-Dichloroethane		**170**	**180**	**110**	**190**	**140**	**103**	**11**	**74**	**100**	**26**	**53**	**28**	**34**	**75**	**40**	**38**	**22**	**973**
1,2-Dichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene		**240**	**180**	**190**	**230**	**200**	**119**	**1,100**	**85**	**84**	**22**	**42**	**524**	**54**	**51**	**24**	**26**	**13**	**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	< 1	< 1	< 1	**100**
1,2-Dichloroethene, Total		**240**	**181**	**191**	**233**	**200**	**120**	**1,113**	**85**	**84**	**22**	**42**	**533**	**55**	**51**	**24**	**26**	**13**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	< 1	**1,000**
1,1,1-Trichloroethane		**22**	**23**	**20**	**31**	**19**	**13**	**13**	**15**	**17**	**7**	**9**	**12**	**< 1**	**14**	**8.3**	**6.6**	**5.2**	**200**
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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**	**2.4**	**1.5**	**1.4**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		**170**	ND	**100**	**140**	**80**	**55**	**60**	**40**	**38**	**9.1**	**16**	**74**	**14**	**20**	**18**	**15**	**6.0**	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 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.
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	10/22/2010	10/25/2011	10/17/2012	(µg/L)
VOCs (µg/L)																			
Acetone	NA	NA	NA	NA	ND	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 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*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 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	< 20	< 20	< 20	--
n-Butylbenzene	ND	NA	NA	NA	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane	ND	NA	ND	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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	< 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**	< 1	< 1	< 1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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*	*< 1*	*< 1*	*< 1*	**0.0167**
cis-1,2-Dichloroethene	**390**	**330**	**270**	**690**	**340**	**150**	**200**	**349**	**183**	**170**	**260**	**88**	**288**	**140**	**75**	**135**	**66**	**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**	**5.1**	**1.9**	**3.0**	**100**
1,2-Dichloroethene, Total	**400**	**336**	**277**	**705**	**351**	**150**	**205**	**358**	**190**	**175**	**266**	**93**	**297**	**145**	**78**	**140**	**68**	**78**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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**	**8.9**	**2.6**	**3.9**	**200**
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	**150**	**130**	**120**	**240**	**330**	**96**	**140**	**99**	**106**	**92**	**88**	**45**	**96**	**66**	**68**	**78**	**56**	**43**	**2.54**
1,2,4-Trimethylbenzene	NA	NA	NA	NA	ND	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 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**	**7.7**	**9.6**	**7.6**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 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.
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	10/22/2010	10/25/2011	10/16/2012	(µg/L)
VOCs (µg/L)																			
Acetone		NA	NA	NA	NA	ND	ND	ND	<20.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	**3,650**
Benzene		ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**0.617**
Bromomethane		ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
2-Butanone (MEK)		NA	NA	NA	NA	NA	NA	NA	<12.5	<20.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide		NA	NA	NA	NA	ND	ND	ND	<1.0	<20.0	< 20	< 20	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane		ND	NA	ND	ND	ND	ND	ND	<5.0	<2.0	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	--
Chloroform		ND	ND	ND	ND	ND	ND	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	*< 1*	**4.2**	**0.274**
Dibromomethane		ND	NA	NA	NA	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 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	< 1	--
1,1-Dichloroethene		ND	ND	ND	ND	ND	**2.3**	ND	*<1.0*	*<1.0*	*< 1*	*< 1*	*< 1*	*< 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**	**137**	**93**	**114**	**70**
trans-1,2-Dichloroethene		**27**	**26**	**18**	**24**	**12**	**23**	**16**	**14**	**25**	**16**	**16**	**15**	**16**	**13**	**13**	**10**	**13**	**100**
1,2-Dichloroethene, Total		**457**	**476**	**308**	**414**	**192**	**1,603**	**163**	**179**	**355**	**216**	**196**	**179**	**194**	**141**	**150**	**102**	**127**	(170)
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 20	< 20	< 20	**487**
Tetrachloroethene		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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	< 1	< 1	**1,000**
1,1,1-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 1	< 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*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene		ND	ND	ND	ND	ND	**258**	ND	<1.0	<1.0	< 1	< 1	< 1	< 1	< 1	< 1	**1.1**	**1.3**	**2.54**
1,2,4-Trimethylbenzene		NA	NA	NA	NA	ND	ND	ND	<1.0	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride		ND	ND	ND	ND	ND	**142**	ND	*<1.0*	**2.9**	*< 1*	*< 1*	*< 1*	**2**	**2.1**	*< 1*	**1.5**	*<1*	**0.0283**
Xylenes, Total		ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	< 1	< 1	< 2	< 2	< 2	< 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.
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	RECOVERY WELL RW-5 (Southeast of the Landfill)																		PRG
Date Sampled:	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	10/22/2010	10/25/2011	10/16/2012	(µg/L)
VOCs (µg/L)																			
Acetone	NA	NA	NA	NA	ND	ND	ND	ND	<100	<20.0	< 100	< 100	< 20	< 20	< 20	< 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*	*< 1*	**2.2**	**1.7**	**0.617**
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	NA	<2.0	< 10	< 10	< 1	< 1	< 1	< 1	< 1	< 1	--
2-Butanone (MEK)	NA	NA	NA	NA	NA	NA	NA	NA	<62	<20.0	< 100	< 100	< 20	< 20	< 20	< 20	< 20	< 20	--
n-Butylbenzene	ND	NA	NA	NA	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	< 1	< 1	< 1	--
Carbon Disulfide	NA	NA	NA	NA	ND	ND	ND	ND	<5.0	<20.0	< 100	< 100	< 20	< 20	< 20	< 5	< 5	< 5	**768**
Chloroethane	ND	NA	ND	ND	ND	ND	ND	ND	<25	<2.0	< 10	< 10	< 2	< 2	< 2	< 2	< 2	< 2	--
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	*<1.0*	*< 5*	*< 5*	*< 1*	*< 1*	*< 1*	*< 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	< 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**	< 1	**2.2**	<1	**973**
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	< 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*	*<1*	**1.3**	*<1*	**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**	**626**	**960**	**1,100**	**70**
trans-1,2-Dichloroethene	**20**	**26**	**53**	**140**	**260**	**211**	**143**	**96**	**102**	**63**	**21**	**48**	**44**	**11**	**13**	**6**	**16**	**11**	**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**	**632**	**976**	**1,111**	(170)
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	<1.0	*< 5*	*< 5*	< 1	< 1	< 1	< 1	< 1	< 1	**1.25**
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	< 1	< 1	< 1	**700**
4-Methyl-2-pentanone (MIBK)	NA	NA	NA	NA	ND	ND	ND	ND	<62	<20	< 100	< 100	< 20	< 20	< 20	< 20	< 20	< 20	**487**
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	*<5.0*	<1.0	*< 5*	*< 5*	< 1	< 1	< 1	< 1	< 1	< 1	**1.43**
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 1	< 1	< 1	< 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	< 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*	*< 1*	*< 1*	*< 1*	**0.314**
Trichloroethene	ND	**1.8**	ND	**15**	**130**	**348**	**219**	**55**	**175**	**50 (J)**	**17**	**140**	**54**	**14**	**26**	**11**	**50**	**21**	**2.54**
1,2,4-Trimethylbenzene	NA	NA	NA	NA	ND	ND	ND	ND	<5.0	NA	< 25	< 25	< 5	< 5	< 5	< 5	< 5	< 5	--
Vinyl Chloride	**100**	**200**	**520**	**1,600**	**1,100**	**393**	**436**	**600**	**335**	**520**	**360**	**200**	**415**	**357 J**	**264**	**215**	**218**	**237**	**0.0283**
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<1.0	< 5	< 5	< 2	< 2	< 2	< 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	< 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.
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	< 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.
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	< 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.
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-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	< 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.

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	< 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.

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	500	559	0.13	(susp)	0	0.00	59	214	0.15	0.29
October 2008	cis-1,2-DCE	(susp)	0	0.00	500	362	0.09	(susp)	0	0.00	59	1,126	0.80	0.89
October 2008	Vinyl Chloride	(susp)	0	0.00	500	0	0.00	(susp)	0	0.00	59	185	0.13	0.13
	Total			0.00			0.22			0.00			1.08	**1.30**
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.

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	1300	40	0.03	(susp)	0	0.00	64	623	0.48	0.50
April 2010	cis-1,2-DCE	(susp)	0	0.00	1300	23	0.01	(susp)	0	0.00	64	1,533	1.17	1.18
April 2010	Vinyl Chloride	(susp)	0	0.00	1300	0	0.00	(susp)	0	0.00	64	234	0.18	0.18
	Total			0.00			0.03			0.00			1.83	**1.86**
October 2010	Trichloroethene	(susp)	0	0.00	1240	98	0.06	(susp)	0	0.00	59	305	0.22	0.27
October 2010	cis-1,2-DCE	(susp)	0	0.00	1240	48	0.02	(susp)	0	0.00	59	1,312	0.93	0.95
October 2010	Vinyl Chloride	(susp)	0	0.00	1240	0	0.00	(susp)	0	0.00	59	208	0.15	0.15
	Total			0.00			0.08			0.00			1.29	**1.37**
April 2011	Trichloroethene	(susp)	0	0.00	1000	24	0.01	(susp)	0	0.00	66	335	0.27	0.28
April 2011	cis-1,2-DCE	(susp)	0	0.00	1000	19	0.01	(susp)	0	0.00	66	951	0.75	0.76
April 2011	Vinyl Chloride	(susp)	0	0.00	1000	0	0.00	(susp)	0	0.00	66	161	0.13	0.13
	Total			0.00			0.02			0.00			1.15	**1.17**
October 2011	Trichloroethene	(susp)	0	0.00	1230	145	0.09	(susp)	0	0.00	66	198	0.16	0.24
October 2011	cis-1,2-DCE	(susp)	0	0.00	1230	68	0.03	(susp)	0	0.00	66	710	0.56	0.59
October 2011	Vinyl Chloride	(susp)	0	0.00	1230	0	0.00	(susp)	0	0.00	66	108	0.09	0.09
	Total			0.00			0.11			0.00			0.81	**0.92**

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.

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

DATE	CONSTITUENT	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
		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 2012	Trichloroethene	(susp)	0	0.00	1100	18	0.01	(susp)	0	0.00	62	277	0.21	0.22
April 2012	cis-1,2-DCE	(susp)	0	0.00	1100	29	0.01	(susp)	0	0.00	62	868	0.65	0.66
April 2012	Vinyl Chloride	(susp)	0	0.00	1100	4	0.00	(susp)	0	0.00	62	149	0.11	0.11
	Total			0.00			0.02			0.00			0.96	**0.99**
October 2012	Trichloroethene	(susp)	0	0.00	1200	48	0.03	(susp)	0	0.00	58	144	0.10	0.13
October 2012	cis-1,2-DCE	(susp)	0	0.00	1200	37	0.01	(susp)	0	0.00	58	541	0.38	0.39
October 2012	Vinyl Chloride	(susp)	0	0.00	1200	2.1	0.00	(susp)	0	0.00	58	96	0.07	0.07
	Total			0.00			0.04			0.00			0.54	**0.59**

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.

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	10/21/2010	10/12/2011	10/23/2012
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	< 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	< 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	< 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	< 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	< 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	< 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	< 0.002	< 0.0002	< 0.0002
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	< 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	< 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**	**8.8**	**7.9**	**6.9**
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	< 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	< 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	< 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**	**1.1**	**1.3**	**0.94**
Biological Oxygen Demand	<2.0	<2.0	<2.0	<5	**6**	**8**	<5	**9.4**	<5	<5	**12**	**<5**	NA	NA	**9.46**	<5	NA	<5
Chemical Oxygen Demand	**23**	**18**	**21**	<10	<10	**16**	**72**	**24**	**17**	<10.0	**26.9**	**26.3**	**22.2**	**16.5**	**38.4**	**11.3**	**11.3**	<10.0
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	**0.37 J**	<0.1	**0.26**
Oil & Grease	<5	<5	<5	<5	**6**	**6**	<5	<5	<5	<5	< 5	< 5	<5	<5	<5	<5	<5.2 J	<5.1
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**	**8.27**	NA	NA
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	<0.2	<0.2	<0.2
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	<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**	**1.1**	**1.6**	**1.0**
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	<0.01	<0.02 J	<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**	**2.5 J**	**3.1 J**	**3.0**
Total Solids	**1,100**	**820**	**850**	**830**	**790**	**820**	**850**	**800**	**960**	**940**	**734**	**828**	**688**	**628**	**614**	**656**	**686**	**656**
Total Suspended Solids	**11**	**14**	**19**	**27**	<5	**5**	**9**	<5	**6**	**34.5**	< 5	**7.3**	**5**	**6**	<5	**8**	**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	< 0.52	< 0.67	< 0.52
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	< 0.52	< 0.67	< 0.52
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	< 0.52	< 0.67	< 0.52
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	< 0.52	< 0.67	< 0.52
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	< 0.52	< 0.67	< 0.52
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	< 0.52	< 0.67	< 0.52
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	< 0.52	< 0.67	< 0.52

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.
J = Estimated.

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.

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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.

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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.

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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.

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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	**3.4**	**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:

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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.

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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**

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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**

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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**

Date Sampled	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	**5.5**	**12**	<13.8	**16**
1,1-Dichloroethene	**2.6**	<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	**6.6**	**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	**2.6**	<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 J**	**4,680**	**1,550 J**	**2,510 J**	**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**

Date Sampled	7/13/2010	8/09/2010	9/15/2010	10/22/2010	11/12/2010	12/17/2010
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<114	**20**	**8.5**	<44.2	**18**	**17**
1,1-Dichloroethene	<114	<14.3	**1.5**	<44.2	<13.8	**3.1**
cis-1,2-Dichloroethene	**2,640**	**1,180 J**	**1,820**	**907**	**2,080**	**1,960**
trans-1,2-Dichloroethene	<114	**27**	**10**	<44.2	**17**	**17**
Tetrachloroethene	<114	<14.3	**5.8**	<44.2	<13.8	**6.2**
Toluene	<114	<14.3	**1.2**	<44.2	<13.8	<0.72
1,1,1-Trichloroethane	<114	<14.3	**1.4**	<44.2	<13.8	**3.5**
Trichloroethene	**785**	**537**	**607**	**158**	**343**	**603**
Vinyl Chloride	**453**	**370**	**284**	**149**	**240**	**349**
Cumulative Risk (1)	**1.64E-07**	**1.16E-07**	**9.86E-08**	**4.97E-08**	**7.57E-08**	**1.13E-07**

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.

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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	1/21/2011	2/01/2011	3/21/2011	4/12/2011	5/18/2011	6/16/2011
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<0.71	NA	<13.8	<14.3	<19.2	**15.9**
1,1-Dichloroethene	<0.71	NA	<13.8	<14.3	<19.2	**3.3**
cis-1,2-Dichloroethene	**553**	NA	**3,580**	**2,540**	**903**	**1,900**
trans-1,2-Dichloroethene	4.9	NA	**18.7**	<14.3	<19.2	**14.9**
Tetrachloroethene	5.8	NA	<13.8	<14.3	<19.2	**6.4**
Toluene	3.3	NA	<13.8	<14.3	<19.2	<0.72
1,1,1-Trichloroethane	4.1	NA	<13.8	<14.3	<19.2	**2.2**
Trichloroethene	**118**	NA	**484**	**388**	**205**	**455**
Vinyl Chloride	**142**	NA	**327**	**290**	**244**	**427**
Cumulative Risk (1)	**4.00E-08**	--	**1.03E-07**	**8.98E-08**	**7.02E-08**	**1.24E-07**

Date Sampled	7/13/2011	8/17/2011	9/22/2011	10/12/2011	11/11/2011	12/19/2011
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	**26**	<19.2	<18.5	<110	<13.8	<115
1,1-Dichloroethene	<14.3	<19.2	<18.5	<110	<19.2	<115
cis-1,2-Dichloroethene	**3,440 J**	**407**	**464**	**2,750**	**1,540**	**1,860**
trans-1,2-Dichloroethene	**20**	**4.1**	<18.5	<110	<19.2	<115
Tetrachloroethene	<14.3	**13**	<18.5	<110	<19.2	<115
Toluene	<14.3	<19.2	<18.5	<110	<19.2	<115
1,1,1-Trichloroethane	<14.3	**4.1**	<18.5	<110	<19.2	<115
Trichloroethene	**524**	**122**	**134**	**508**	**165**	**396**
Vinyl Chloride	**336**	**64**	**122**	**477**	**202**	**287**
Cumulative Risk (1)	**1.08E-07**	**2.33E-08**	**3.82E-08**	**1.54E-07**	**5.76E-08**	**1.05E-07**

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.

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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	1/10/2012	2/13/2012	3/13/2012	4/12/2012	5/27/2012	6/21/2012
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<53.6	**11.7**	**14.9**	<107	<57.6	<57.6
1,1-Dichloroethene	<53.6	**2.0**	**2.6**	<107	<57.6	<57.6
cis-1,2-Dichloroethene	**1,720**	**1,780**	**2,020**	**2,730**	**2,450**	**1,940**
trans-1,2-Dichloroethene	<53.6	**14.4**	**15.6**	<107	<57.6	<57.6
Tetrachloroethene	<53.6	**1.7**	**1.7**	<107	<57.6	<57.6
Toluene	<53.6	<0.72	**3.8**	<107	<57.6	<57.6
1,1,1-Trichloroethane	<53.6	<0.72	**0.97**	<107	<57.6	<57.6
Trichloroethene	**311**	**323**	**442**	**662**	**661**	**549**
Vinyl Chloride	**258**	**261**	**387**	**520**	**509**	**445**
Cumulative Risk (1)	**8.44E-08**	**7.77E-08**	**1.13E-07**	**1.72E-07**	**1.62E-07**	**1.41E-07**

Date Sampled	7/11/2012	8/20/2012	9/06/2012	10/24/2012	11/29/2012	12/13/2012
CONSTITUENT (ppb[v/v])	**EFFLUENT SAMPLE**					
1,1-Dichloroethane	<57.6	<27.8	**11.6**	<74.5	<53.6	**0.97**
1,1-Dichloroethene	<57.6	<27.8	**1.6**	<74.5	<53.6	<0.67
cis-1,2-Dichloroethene	**1,470**	**884**	**1,010**	**1,020**	**1,210**	**904**
trans-1,2-Dichloroethene	<57.6	<27.8	**11.1**	<74.5	<53.6	**1.1**
Tetrachloroethene	<57.6	<27.8	**12.9**	<74.5	<53.6	<0.67
Toluene	<57.6	<27.8	<0.70	<74.5	<53.6	**0.85**
1,1,1-Trichloroethane	<57.6	<27.8	**3.5**	<74.5	<53.6	<0.67
Trichloroethene	**266**	**164**	**173 J**	**233**	**223**	**331**
Vinyl Chloride	**204**	**171**	**116 J**	**217**	**220**	**15.0**
Cumulative Risk (1)	**7.02E-08**	**5.25E-08**	**3.80E-08**	**7.41E-08**	**7.16E-08**	**2.10E-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.

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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

Scenario Number	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*	
93	**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
94	**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
95	**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
96	**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
97	**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
98	**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
99	**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
100	**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
101	**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
102	**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

Scenario Number	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*	
103	**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
104	**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
105	**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
106	**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
107	**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
108	**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
109	**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
110	**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
111	**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
112	**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

Scenario Number	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*	
113	**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
114	**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
115	**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
116	**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
117	**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
118	**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
119	**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
120	**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
121	**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
122	**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
123	**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
124	**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

Scenario Number	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*	
125	**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
126	**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
127	**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
128	**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
129	**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
130	**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
131	**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
132	**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
133	**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
134	**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
135	**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
136	**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

Scenario Number	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*	
137	**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
138	**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
139	**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
140	**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
141	**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
142	**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
143	**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
144	**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
145	**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
146	**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
147	**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
148	**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

Scenario Number	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*	
149	**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
150	**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
151	**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
152	**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
153	**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
154	**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
155	**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
156	**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
157	**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
158	**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
159	**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
160	**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

Scenario Number	Description / Sample Date	Input / Output	CONSTITUENTS 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*	Cumulative Cancer Risk
161	**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
162	**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
163	**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
164	**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
165	**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
166	**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
167	**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
168	**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**
169	**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
170	**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
169	**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
170	**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/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

Scenario Number	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*	
171	**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
172	**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
173	**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
174	**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
175	**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
176	**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
171	**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
172	**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
173	**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
174	**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
175	**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
176	**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

Scenario Number	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*	
171	**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
172	**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
173	**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
174	**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
175	**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
176	**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
177	**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
178	**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
179	**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
180	**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
181	**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
182	**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

Scenario Number	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*	
183	**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
184	**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
185	**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
186	**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
187	**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
188	**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
183	**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
184	**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
185	**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
186	**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
187	**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
188	**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

Scenario Number	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*	
189	**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
190	**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
191	**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
192	**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
193	**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
194	**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
195	**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
196	**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
197	**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
198	**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
199	**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
200	**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

Scenario Number	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*	
199	**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
200	**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
201	**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
202	**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
203	**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
204	**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
205	**EFF**	(ppb[v/v])	114	785	114	2640	114	453	114	114	114	
	7/13/2010	(g/s)	0.0006	0.0044	0.0006	0.0148	0.0006	0.0025	0.0006	0.0006	0.0006	
		Max.Conc.	0.003	0.021	0.003	0.069	0.003	0.012	0.003	0.003	0.003	
		ECR	1.77E-08	4.13E-08				1.05E-07		4.89E-11		1.64E-07
206	**EFF**	(ppb[v/v])	14	537	14	1180	27	370	14	20	14	
	8/09/2010	(g/s)	0.0001	0.0030	0.0001	0.0066	0.0002	0.0021	0.0001	0.0001	0.0001	
		Max.Conc.	0.000	0.014	0.000	0.031	0.001	0.010	0.000	0.001	0.000	
		ECR	2.22E-09	2.82E-08				8.56E-08		8.57E-12		1.16E-07
207	**EFF**	(ppb[v/v])	6	607	2	1820	10	284	1	9	1	
	9/15/2010	(g/s)	0.0000	0.0034	0.0000	0.0102	0.0001	0.0016	0.0000	0.0000	0.0000	
		Max.Conc.	0.000	0.016	0.000	0.048	0.000	0.007	0.000	0.000	0.000	
		ECR	9.00E-10	3.19E-08				6.57E-08		3.64E-12		9.86E-08
208	**EFF**	(ppb[v/v])	44	158	44	907	44	149	44	44	44	
	10/22/2010	(g/s)	0.0002	0.0009	0.0002	0.0051	0.0002	0.0008	0.0002	0.0002	0.0002	
		Max.Conc.	0.001	0.004	0.001	0.024	0.001	0.004	0.001	0.001	0.001	
		ECR	6.86E-09	8.31E-09				3.45E-08		1.89E-11		4.97E-08
209	**EFF**	(ppb[v/v])	14	343	14	2080	17	240	14	18	14	
	11/12/2010	(g/s)	0.0001	0.0019	0.0001	0.0116	0.0001	0.0013	0.0001	0.0001	0.0001	
		Max.Conc.	0.000	0.009	0.000	0.055	0.000	0.006	0.000	0.000	0.000	
		ECR	2.14E-09	1.80E-08				5.55E-08		7.72E-12		7.57E-08
210	**EFF**	(ppb[v/v])	6	603	3	1960	17	349	4	17	1	
	12/17/2010	(g/s)	0.0000	0.0034	0.0000	0.0110	0.0001	0.0020	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.016	0.000	0.052	0.000	0.009	0.000	0.000	0.000	
		ECR	9.62E-10	3.17E-08				8.08E-08		7.29E-12		1.13E-07

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

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

Scenario Number	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*	
211	**EFF**	(ppb[v/v])	5.8	118	0.71	553	4.9	142	4.1	0.71	3.3	
	1/13/2011	(g/s)	0.0000	0.0007	0.0000	0.0031	0.0000	0.0008	0.0000	0.0000	0.0000	
		Max.Conc.	0.000	0.003	0.000	0.015	0.000	0.004	0.000	0.000	0.000	
		ECR	9.00E-10	6.21E-09				3.29E-08		3.04E-13		4.00E-08
212	**EFF**	(ppb[v/v])	13.8	484	13.8	3580	18.7	327	13.8	13.8	13.8	
	3/21/2011	(g/s)	0.0001	0.0027	0.0000	0.0200	0.0001	0.0018	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.013	0.000	0.094	0.000	0.009	0.000	0.000	0.000	
		ECR	2.14E-09	2.55E-08				7.57E-08		5.92E-12		1.03E-07
213	**EFF**	(ppb[v/v])	14.3	388	14.3	2540	14.3	290	14.3	14.3	14.3	
	4/12/2011	(g/s)	0.0001	0.0022	0.0000	0.0142	0.0000	0.0016	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.010	0.000	0.067	0.000	0.008	0.000	0.000	0.000	
		ECR	2.22E-09	2.04E-08				6.71E-08		6.13E-12		8.98E-08
214	**EFF**	(ppb[v/v])	19.2	205	19.2	903	19.2	244	19.2	19.2	19.2	
	5/18/2011	(g/s)	0.0001	0.0011	0.0000	0.0000	0.0000	0.0014	0.0000	0.0001	0.0000	
		Max.Conc.	0.001	0.005	0.000	0.000	0.000	0.006	0.000	0.001	0.000	
		ECR	2.98E-09	1.08E-08				5.65E-08		8.23E-12		7.02E-08
215	**EFF**	(ppb[v/v])	6.4	455	3.3	1900	14.9	427	2.2	15.9	0.72	
	6/16/2011	(g/s)	0.0000	0.0025	0.0000	0.0000	0.0000	0.0024	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.012	0.000	0.000	0.000	0.011	0.000	0.000	0.000	
		ECR	9.93E-10	2.39E-08				9.88E-08		6.82E-12		1.24E-07
216	**EFF**	(ppb[v/v])	14.3	524	14.3	3440	20	336	14.3	25.9	14.3	
	7/13/2011	(g/s)	0.0001	0.0029	0.0001	0.0193	0.0001	0.0019	0.0001	0.0001	0.0001	
		Max.Conc.	0.000	0.014	0.000	0.090	0.001	0.009	0.000	0.001	0.000	
		ECR	2.22E-09	2.76E-08				7.78E-08		1.11E-11		1.08E-07
217	**EFF**	(ppb[v/v])	13	122	0.7	407	4	64	4.1	1	1	
	8/17/2011	(g/s)	0.0001	0.0007	0.0000	0.0023	0.0000	0.0004	0.0000	0.0000	0.0000	
		Max.Conc.	0.000	0.003	0.000	0.011	0.000	0.002	0.000	0.000	0.000	
		ECR	2.00E-09	6.42E-09				1.49E-08		3.09E-13		2.33E-08
218	**EFF**	(ppb[v/v])	18.5	134	18.5	464	18.5	122	18.5	18.5	18.5	
	9/22/2011	(g/s)	0.0001	0.0008	0.0001	0.0026	0.0001	0.0007	0.0001	0.0001	0.0001	
		Max.Conc.	0.000	0.004	0.000	0.012	0.000	0.003	0.000	0.000	0.000	
		ECR	2.87E-09	7.05E-09				2.82E-08		7.93E-12		3.82E-08
219	**EFF**	(ppb[v/v])	110	508	110	2750	110	477	110	110	110	
	10/12/2011	(g/s)	0.0006	0.0028	0.0006	0.0154	0.0006	0.0027	0.0006	0.0006	0.0006	
		Max.Conc.	0.003	0.013	0.003	0.072	0.003	0.013	0.003	0.003	0.003	
		ECR	1.71E-08	2.67E-08				1.10E-07		4.72E-11		1.54E-07
220	**EFF**	(ppb[v/v])	14	165	14	1540	14	202	14	14	14	
	11/11/2011	(g/s)	0.0001	0.0009	0.0001	0.0086	0.0001	0.0011	0.0001	0.0001	0.0001	
		Max.Conc.	0.0004	0.004	0.000	0.041	0.000	0.005	0.000	0.000	0.000	
		ECR	2.14E-09	8.68E-09				4.68E-08		6.00E-12		5.76E-08
221	**EFF**	(ppb[v/v])	115	396	115	1860	115	287	115	115	115	
	12/19/2011	(g/s)	0.0006	0.0022	0.0006	0.0104	0.0006	0.0016	0.0006	0.0006	0.0006	
		Max.Conc.	0.003	0.010	0.003	0.049	0.003	0.008	0.003	0.003	0.003	
		ECR	1.78E-08	2.08E-08				6.64E-08		4.93E-11		1.05E-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 --
1,1-Dichloroethane --
Trichloroethene --
Tetrachloroethene --

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

Scenario Number	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*	
220	**EFF**	(ppb[v/v])	54	311	54	1720	54	258	54	54	54	
	1/10/2012	(g/s)	0.0003	0.0017	0.0003	0.0096	0.0003	0.0014	0.0003	0.0003	0.0003	
		Max.Conc.	0.001	0.008	0.001	0.045	0.001	0.007	0.001	0.001	0.001	
		ECR	8.32E-09	1.64E-08				5.97E-08		2.30E-11		8.44E-08
221	**EFF**	(ppb[v/v])	2	323	2	1780	14	261	1	12	1	
	2/13/2012	(g/s)	0.0000	0.0018	0.0000	0.0100	0.0001	0.0015	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.008	0.000	0.047	0.000	0.007	0.000	0.000	0.000	
		ECR	2.64E-10	1.70E-08				6.04E-08		5.02E-12		7.77E-08
222	**EFF**	(ppb[v/v])	2	442	3	2020	16	387	1	15	4	
	3/13/2012	(g/s)	0.0000	0.0025	0.0000	0.0113	0.0001	0.0022	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.012	0.000	0.053	0.000	0.010	0.000	0.000	0.000	
		ECR	2.64E-10	2.32E-08				8.96E-08		6.39E-12		1.13E-07
223	**EFF**	(ppb[v/v])	107	662	107	2730	107	520	107	107	107	
	4/12/2012	(g/s)	0.0006	0.0037	0.0006	0.0153	0.0006	0.0029	0.0006	0.0006	0.0006	
		Max.Conc.	0.003	0.017	0.003	0.072	0.003	0.014	0.003	0.003	0.003	
		ECR	1.66E-08	3.48E-08				1.20E-07		4.59E-11		1.72E-07
224	**EFF**	(ppb[v/v])	58	661	58	2450	58	509	58	58	58	
	5/27/2012	(g/s)	0.0003	0.0037	0.0003	0.0137	0.0003	0.0028	0.0003	0.0003	0.0003	
		Max.Conc.	0.0015	0.017	0.002	0.064	0.002	0.013	0.002	0.002	0.002	
		ECR	8.97E-09	3.48E-08				1.18E-07		2.48E-11		1.62E-07
225	**EFF**	(ppb[v/v])	58	549	58	1940	58	445	58	58	58	
	6/21/2012	(g/s)	0.0003	0.0031	0.0003	0.0109	0.0003	0.0025	0.0003	0.0003	0.0003	
		Max.Conc.	0.002	0.014	0.002	0.051	0.002	0.012	0.002	0.002	0.002	
		ECR	8.94E-09	2.89E-08				1.03E-07		2.47E-11		1.41E-07
226	**EFF**	(ppb[v/v])	58	266	58	1470	58	204	58	58	58	
	7/11/2012	(g/s)	0.0003	0.0015	0.0003	0.0082	0.0003	0.0011	0.0003	0.0003	0.0003	
		Max.Conc.	0.002	0.007	0.002	0.039	0.002	0.005	0.002	0.002	0.002	
		ECR	8.94E-09	1.40E-08				4.72E-08		2.47E-11		7.02E-08
227	**EFF**	(ppb[v/v])	28	164	28	884	28	171	28	28	28	
	8/20/2012	(g/s)	0.0002	0.0009	0.0002	0.0049	0.0002	0.0010	0.0002	0.0002	0.0002	
		Max.Conc.	0.001	0.004	0.001	0.023	0.001	0.004	0.001	0.001	0.001	
		ECR	4.31E-09	8.63E-09				3.96E-08		1.19E-11		5.25E-08
228	**EFF**	(ppb[v/v])	13	173	2	1010	11	116	4	12	1	
	9/06/2012	(g/s)	0.0001	0.0010	0.0000	0.0057	0.0001	0.0006	0.0000	0.0001	0.0000	
		Max.Conc.	0.000	0.005	0.000	0.027	0.000	0.003	0.000	0.000	0.000	
		ECR	2.00E-09	9.10E-09				2.68E-08		4.97E-12		3.80E-08
229	**EFF**	(ppb[v/v])	107	662	75	1020	75	217	75	75	75	
	10/24/2012	(g/s)	0.0006	0.0037	0.0004	0.0057	0.0004	0.0012	0.0004	0.0004	0.0004	
		Max.Conc.	0.003	0.017	0.002	0.027	0.002	0.006	0.002	0.002	0.002	
		ECR	1.66E-08	3.48E-08				5.02E-08		3.19E-11		1.02E-07
230	**EFF**	(ppb[v/v])	58	223	54	1210	54	220	54	54	54	
	11/29/2012	(g/s)	0.0003	0.0012	0.0003	0.0068	0.0003	0.0012	0.0003	0.0003	0.0003	
		Max.Conc.	0.0015	0.006	0.001	0.032	0.001	0.006	0.001	0.001	0.001	
		ECR	8.97E-09	1.17E-08				5.09E-08		2.30E-11		7.16E-08
231	**EFF**	(ppb[v/v])	1	331	1	904	1	15	1	1	1	
	12/13/2012	(g/s)	0.0000	0.0019	0.0000	0.0051	0.0000	0.0001	0.0000	0.0000	0.0000	
		Max.Conc.	0.000	0.009	0.000	0.024	0.000	0.000	0.000	0.000	0.000	
		ECR	1.04E-10	1.74E-08				3.47E-09		4.16E-13		2.10E-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.

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
SEMI-ANNUAL PROGRESS REPORT 35

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.

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