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Site-Wide Groundwater Monitoring Report for 2010

Motors Liquidation Company

Former Delphi Harrison Thermal Systems, Moraine Plant
Former General Motors Powertrain Group, Moraine Engine Plant
Former General Motors Truck Group, Moraine Assembly Plant

Moraine, Ohio

February 28, 2011

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1. Introduction

This Site-Wide Groundwater Monitoring Report presents the groundwater monitoring activities completed in 2010 at the following Motors Liquidation Company (formerly General Motors Corporation [GM]) facilities located in Moraine, Ohio (Figure 1): former Delphi Harrison Thermal Systems Moraine Plant (former Delphi Thermal Moraine), former General Motors Powertrain Group, Moraine Engine Plant (former Moraine Engine), and former General Motors Truck Group, Moraine Assembly Plant (former Moraine Assembly). A multi-phased Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) was completed for these facilities and approved by the United States Environmental Protection Agency (U.S. EPA) in June 2000 (ARCADIS Geraghty & Miller, Inc. 2000a and b, ENVIRON 2000a and b). The RFI identified that the primary source area of volatile organic compounds (VOCs) in shallow groundwater at the three facilities is located at the Area of Interest (AOI) 7 - Former Oil House Area, in the northern portion of the former Moraine Engine facility (Figure 2). The Baseline Risk Assessment (BRA) concluded that, under current conditions, there was no unacceptable risk associated with constituents detected in soil/waste at the AOIs and Solid Waste Management Units (SWMUs) investigated in the RFI. However, the BRA also concluded that constituents detected in groundwater at the Former Oil House Area may migrate to the extent that reasonably expected future uses of groundwater might be affected.

The focus of the Interim Measures/Corrective Measures (IM/CM) Report (ARCADIS Geraghty & Miller, Inc. 2001) was a site-wide remedy that addressed the source of the VOCs in groundwater and the downgradient plume based on the conceptual site model at that time. Subsequent to submittal of the IM/CM Report, implementation of the corrective measures proposed in the IM/CM Report has been conducted on an ongoing basis by former GM. The corrective measures proposed in the IM/CM Report incorporated the Former Oil House Area corrective measures (in-situ remediation of groundwater in the Oil House Area and downgradient of the Oil House Area, Figure 2); the capture zone corrective measures (hydraulic control with a pump and treat system for the upper aquifer and hydraulic control for the lower aquifer, Figure 2); institutional actions (the Site will remain industrial and groundwater use will be restricted to non-potable purposes); and a site-wide groundwater monitoring program.

The conceptual site model previously developed for the Site was revised using the additional data collected during the supplemental investigations since submittal of the IM/CM Report. The revised conceptual site model was presented in the draft Corrective Measures Proposal (CMP) (ARCADIS, Inc. 2008a) and was used to support

the updated risk analysis and corrective measures evaluation. The proposed final site-wide corrective measures for the Moraine Facilities combines source treatment and containment with downgradient hydraulic control of groundwater and appropriate engineering and institutional controls to prevent potentially significant exposures during the implementation of these corrective measures. The specific elements of the proposed final site-wide corrective measures presented in the CMP and CMP Addendum (ARCADIS, Inc. 2008 and 2010a) are:

1). Upper Aquifer Reactive Zone Corrective Measures: operation of in-situ remediation barriers in the upper aquifer downgradient and side-gradient of the Former Oil House Area and downgradient of the Moraine Assembly Process Waste Collection Systems (RZ-1, proposed relocated RZ-2, RZ-3, RZ-4) for treatment.

2). Upper Aquifer Capture Zone Corrective Measures: operation of an upper aquifer recovery well at the downgradient property boundary (TW-2) for hydraulic control.

3). Lower Aquifer Corrective Measures: operation of two lower aquifer recovery wells, one located downgradient of wells GM-68D/GM-75D for lower aquifer source containment and one downgradient of the Site property boundary (DN-13) for hydraulic control.

4). Corrective Measures Groundwater Monitoring: completion of monitoring groundwater quality associated with land-based units, performance monitoring for corrective measures, and the point of compliance wells.

5). Engineering/Institutional Controls: implementation of land and groundwater use restrictions via environmental covenants for the entire facility.

This report addresses several components of the proposed final remedy, including the site-wide groundwater monitoring program and the performance of the ongoing corrective measures (Table 1). All groundwater monitoring for the facilities was conducted in accordance with the approved Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002) and as modified in the draft Site-Wide Groundwater Monitoring Report for 2009 (ARCADIS, Inc. 2010b).

1.1 Site Description

The Motors Liquidation Company (formerly GM) Site has been used for industrial purposes since the property was acquired in the mid-1920s. The former Moraine

Engine and Moraine Assembly facilities occupy approximately 239 acres, while the adjacent former Delphi Thermal Moraine facility occupies approximately 124 acres. The facilities are located in the City of Moraine in Montgomery County in southwestern Ohio. A small portion of the Moraine Assembly facility is located in the City of Kettering. Figure 1 presents the location of each facility, property boundaries, and site features.

Frigidaire (a former division of GM) produced appliances from the late 1920's until 1979. GM announced the shutdown of all Frigidaire operations in January 1979. During 1980 and 1981, the majority of the former Frigidaire Plant 2 was converted to the former Moraine Engine facility, and the former Frigidaire Plant 3 and the northeast corner of former Frigidaire Plant 2 were converted to the Moraine Assembly facility. Since 1981, former Moraine Engine operations have included the machining, painting (this operation was discontinued in September 1995), and assembly of diesel truck engines. Operations at the former Moraine Engine facility ceased in the fall of 2000. The plant building has undergone decommissioning and demolition, and the majority of this site has been covered with a parking surface. GM operated a regional haulaway at the location of the former Moraine Engine plant, which was referred to as the Vehicle Distribution Center until 2008. Operations at the regional haulaway ceased in December 2008.

Since 1981, Moraine Assembly operations included the manufacture, assembly, and painting of small trucks and later sport utility vehicles (SUVs). Operations at the former Moraine Assembly ceased in December 2008. The former Moraine Assembly building, Paint Building and Compressor Building are currently under Cessation of Regulated Operations (CRO) under Ohio Administrative Code (OAC) 3745-652 as of August 3, 2009.

Former Delphi Thermal Moraine's major operations, which began in 1941, included the machining and assembly of automotive air conditioning compressors, accumulator dehydrators, and miscellaneous air conditioning valves. Operations at the former Delphi Thermal Moraine Building 14 ceased in September 2003 and the building was decommissioned. Demolition of Building 14 was completed in 2005. DMAX, located north of former Delphi Thermal Moraine, is a joint venture between GM and Isuzu and produces diesel engines. DMAX is an active facility.

On June 1, 2009, GM and certain subsidiaries filed voluntary petitions for relief under Chapter 11 of the Bankruptcy Code. An order was entered approving the sale of substantially all of GM's assets to a new and independent company (now known as

General Motors Company, LLC) under Section 363 of the Bankruptcy Code on June 5, 2009. The sale closed on July 10, 2009. At that time, GM Corporation changed its name to MLC. The Moraine Facilities were retained and are currently owned by MLC.

1.2 Groundwater Monitoring Program Objectives

The objectives of groundwater monitoring at the former Moraine Facilities are as follows:

1. Monitor groundwater quality upgradient and downgradient of the closed North and South Settling Lagoons;

2. Monitor groundwater quality upgradient and downgradient of Landfills L1, L2, and L3;

3. Monitor the effectiveness of and the need for current groundwater capture systems in the upper and lower aquifers at the southern, downgradient property boundary;

4. Monitor the effectiveness of corrective measures activities in In-Situ Reactive Zones (RZ) RZ-1, RZ-3, and RZ-4, to address VOCs related to the Former Oil House Area; and

5. Monitor an appropriate list of wells once corrective measures objectives have been met, as defined in the CMP and CMP Addendum (ARCADIS, Inc. 2008 and 2010a), to verify that these objectives continue to be met without the active measures.

1.3 Baseline Groundwater Monitoring Program Sampling Event

To provide a basis for evaluating the performance of the Corrective Measures, a comprehensive site-wide groundwater sampling event for VOCs was conducted in September 1999 to establish a baseline data set. The next site-wide groundwater sampling event was completed between September and October 2000. During the 2000 sampling event, at the request of U.S. EPA, groundwater samples were analyzed for Appendix IX VOCs by Method 8260 and cis-1,2-dichloroethene (cis-1,2-DCE), semi-volatile organic compounds (SVOCs) and metals to verify that current groundwater conditions were consistent with previous Site conditions. The results of this one-time sampling event confirmed that VOCs were the only constituents of potential concern in groundwater at the Site. SVOCs were not detected and metals

were not detected above levels of concern during the 2000 sampling event. The analytical results from the 1999 baseline event and the 2000 site-wide event are presented in the Draft Interim Measures/Corrective Measures Report (ARCADIS Geraghty & Miller, Inc. 2001).

1.4 Corrective Measures Description

1.4.1 In-Situ Reactive Zones

The reductive dechlorination of chlorinated VOCs can be enhanced by the introduction of a carbon source that stimulates activity of indigenous microorganisms. The high carbon loading triggers a succession of microbial species. Initially, aerobic electron acceptors such as oxygen and nitrate are consumed. Then, the microbial succession leads to a consortium of species that survive by sulfate reduction, methanogenesis and other similar metabolic pathways, supporting the highly reducing conditions necessary for the dechlorination of PCE, TCE, cis-1,2-DCE, and vinyl chloride. This enhanced reductive dechlorination process (ERD) has been developed at the Site through the use of RZs for introduction of a degradable carbon source necessary to develop the desired reducing conditions.

Enhanced reductive dechlorination was implemented in 1999 as a component of the Former Oil House Area corrective measures at three zones: 1) at the southern boundary of the Former Oil House Area (RZ-1); 2) at an intermediate downgradient location south of the Former Oil House Area in the ME well series area (RZ-2 which was operated from 1999 to 2002); and 3) at a downgradient location south of former Delphi Thermal Moraine (RZ-3 West) and the former Moraine Engine plant (RZ-3 East). Using the data obtained from the Supplemental Groundwater Investigation conducted in 2006, RZ-4 was designed and installed to address VOC impacts identified west of RZ-3 West (GM-16). The RZ locations are shown on Figure 2. The actual layouts of each RZ are shown on Figures 3 and 4, and discussed below:

- At RZ-1, molasses solution was introduced into the upper aquifer, above the upper clay till. The carbon injection wells are screened across the lower 10 ft of the upper aquifer, which is 4 ft to 12 ft thick. RZ-1 consists of 21 introduction wells, of which 12 wells (RZ-1J through RZ-1U) were added in 2002, to expand RZ-1.

- Former RZ-2 consisted of four monitoring wells (ME-1 [abandoned], ME-2, ME-4, ME-5 [abandoned]), located along the western edge of the former Moraine Engine Plant 3 building. The RZ-2 wells were screened within the upper 3 ft of the upper

aquifer. RZ-2 was operated from 1999 to 2002. Relocation of in situ reactive zone RZ-2 has been proposed as part of the CMP.

- RZ-3 consists of 46 introduction wells, 30 wells in RZ-3 West (RZ-3A through RZ-3DD) and 16 wells in RZ-3 East (RZ-3FF through RZ-3KK, and RZ-3MM through RZ-3VV). At RZ-3, the carbon injection wells were screened from approximately the aquifer surface to a depth of 46 ft to 68 ft bls, allowing carbon introduction through the lower 20 to 30 feet of the upper aquifer. Introduction wells RZ-3RR through RZ-3VV were installed in April 2005 in order to establish a reactive zone further down-gradient and closer to the property boundary. The additional introduction wells were screened from 34 ft to 54 ft bls. Wells RZ-3MM through RZ-3QQ have not been operated since the installation of RZ-3RR through RZ-3VV in 2005, therefore, of the 16 existing introduction wells in RZ-3 East, only 11 are active.

- RZ-4 consists of 15 introduction wells, 7 wells in RZ-4 West (RZ-4I through RZ-4O) and 8 wells in RZ-4 East (RZ-4A through RZ-4H). These wells were installed in July 2006. The RZ-4 West wells are located in the southeast corner of the closed South Settling Lagoon and the RZ-4 East wells are located north of Landfill L1 and west of the Waste Pile/Staging Area. At RZ-4, the carbon injection wells were screened from approximately the aquifer surface to a depth of 57 ft to 62 ft bls, allowing carbon introduction through the lower 30 feet of the upper aquifer. Only RZ-4 East remains active.

To establish conditions conducive to ERD within reactive zones RZ-1, RZ-2, and RZ-3, a readily degradable carbon source (a dilute solution of molasses and potable water) was periodically delivered into the reactive zone introduction wells during a 6-month period from December 1999 to May 2000. The molasses solution consisted of either a 10-to-1 or 20–to-1 ratio of potable water to feed-grade molasses that was pumped into each RZ well. The initial event, conducted in December 1999, consisted of two consecutive rounds of carbon source introductions in each RZ well. After the initial introduction event, the carbon source solution introductions were scheduled twice per month through May 2000. Due to the success during the first six months of implementing this technology, carbon source introduction activities continued in October, November, and December 2000, and subsequently from June 2001 through December 2010.

Introductions in RZ-1 were modified in the fall of 2003 after review of the previous site-wide groundwater analytical results. Due to the success of RZ-1, reduced carbon

loading was implemented at a frequency of one introduction event every other month, and monitoring well GM-28 was periodically sampled to ensure that the necessary reducing conditions were being sustained to promote the dechlorination process. In May 2005, the introduction routine was changed to two injections every quarter to maintain reducing conditions and provide sufficient carbon to allow for complete degradation of the VOCs. Monthly injections were completed in 2010.

Introductions continued throughout 2010 on a monthly introduction schedule in Reactive Zone RZ-3 except for January due to weather conditions. Wells GM-21, GM-6, and GM-8 serve as the downgradient performance monitoring wells for RZ-3. Monthly carbon introductions in RZ-4 East continued from February through December 2010. Monitoring Well GM-19S serves as the downgradient performance monitoring well for RZ-4 East. The molasses is stored on-site and mixed with potable water prior to injections. Details regarding the frequency and strength of carbon source introductions are provided in Table 2 for 2010.

1.4.2 Capture Zones

The capture zone corrective measure for the upper aquifer consists of groundwater extraction at the property boundary using well TW-2; treatment through an air stripper tower; and discharge through a NPDES permitted outfall to the South Storm Water Retention Basin ultimately discharging to the Great Miami River. Groundwater recovery from TW-2 began on January 31, 1996. During the 15 years of operation (January 31, 1996 through December 31, 2010), the system has recovered and treated a total of 954,412,912 gallons of groundwater at an average flow rate of 137.3 gallons per minute (gpm). Annual total gallons recovered and average flow rate during 2010 were 38,200,672 gallons and approximately 74.34 gpm, respectively. The average flow rate of approximately 74.34 gpm in 2010 is 47.26 gpm lower compared to 2009 (121.6 gpm). This low flow rate is attributed to system equipment fouling. System cleaning and maintenance was completed in late 2010 and will continue in 2011 to improve the system flow rate. The location of recovery well TW-2 is shown on Figure 2.

From November 1996 through the end of this reporting period, the water level in TW-2 has been monitored and the TW-2 flow rate adjusted as recommended in the October 1996 Monthly Technical Progress Report (Geraghty & Miller, Inc. 1996) and approved by U.S. EPA (Personal Communication, 1996). This procedure was implemented to avoid excessive drawdown within the well, which could cause damage to the well screen and/or the pump. The flow rate from TW-2 is adjusted as necessary to

maintain the water level in TW-2 at least 0.5 feet above the top of the well screen. As documented in the 2010 Monthly Technical Progress Reports, the treatment system is periodically shut down for short periods of time for operation and maintenance activities. The groundwater treatment system was not in operation for the entire month of December due to equipment maintenance. The maintenance activities included the following: TW-2 well screen inspection and cleaning and pump replacement, removal of scale from the influent piping, and minor infrastructure repair and replacement.

Well DN-13 is a lower aquifer extraction well that is owned and operated by Montgomery County and has been used in a Pump-to-Waste Program since March 1990 in cooperation with MLC (formerly GM). The capture zone corrective measure for the lower aquifer consists of continued pumping of DN-13 in 2010 at an approximate range of 730 to 860 gpm. Well DN-13 was operational throughout 2010 except for the periodic shutdowns for operation and maintenance activities that are documented in the 2010 Monthly Technical Progress Reports. Capture analysis is discussed further in Section 3.2. The location of well DN-13 is shown on Figure 2.

2. Groundwater Monitoring Summary

In accordance with the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002), annual groundwater sampling was conducted in 2001 through 2010. The latest annual groundwater monitoring was conducted in September 2010. At the request of the U.S. EPA wells HR-7 and GM-9 were added to the annual program (BOW Environmental Solutions, Inc. 2010). In addition, three supplemental groundwater monitoring events were conducted in January, April, and October 2010 from select monitoring wells. These supplemental sampling events are intended to provide additional data to better understand the groundwater quality at these select locations. The 1999 baseline through 2009 groundwater quality data for the site-specific VOC parameter list are reproduced in tables in Appendix A and for 2010 in Table 3 of this report to support the evaluation of the groundwater quality of source areas, the effectiveness of the on-going corrective measures (RZ and capture zones), monitoring the closed settling lagoons and monitoring plume migration.

A summary of the activities and methodologies that were completed in 2010 are presented in Section 2.1 and the groundwater monitoring results are presented in Section 2.2.

2.1 Groundwater Monitoring Activities/Methodologies

In order to meet the objectives of the groundwater monitoring program, the scope of work presented in Section 3.0 of the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002) and Section 5.0 of the Site-Wide Groundwater Monitoring Report for 2009 (ARCADIS, Inc. 2010c) was implemented during 2010 along with additional supplemental sampling. The following sections summarize the collection of the annual groundwater elevation measurements, the monthly groundwater monitoring, supplemental groundwater monitoring, and the annual site-wide groundwater monitoring.

2.1.1 Groundwater Elevation Monitoring

Groundwater levels were measured on September 20 and 21, 2010. The measured wells included all on-site and off-site monitoring wells at the three facilities as shown on Figure 5 (upper aquifer wells) and Figure 6 (lower aquifer wells). Groundwater levels were also measured in former Moraine Assembly production wells (where accessible), former Moraine Assembly fire wells, two lower aquifer wells (MT596M and MT576M) located east of the former Moraine Assembly and Engine plants, three City of Moraine

upper aquifer wells located west of the Great Miami River, and four stream gauges along the Great Miami River and one stream gauge along Holes Creek. Groundwater levels were measured in accordance with procedures defined in the RFI Sampling and Analysis Plan, Standard Operating Procedure (SOP) #4 (Geraghty & Miller, Inc. 1997a) and recorded on an electronic field data sheet.

2.1.2 Monthly Groundwater Recovery System Monitoring

The National Pollution Discharge Elimination System (NPDES) Permit issued to MLC for the groundwater recovery and treatment system of the upper aquifer requires periodic monitoring and reporting of water quality in the effluent stream and pumping flow rates. Samples of groundwater pumped through the air stripping treatment tower were collected and analyzed monthly for the parameters required in the permit. The former GM's air permit for the air stripper tower expired on June 20, 2003 and the Regional Air Pollution Control Agency (RAPCA) approved renewal of this permit through June 20, 2008 as a registration status permit due to the negligible organic compound emissions from the tower. Former GM submitted a request on June 19, 2008 to RAPCA for recognition of P001 as a de minimis source of air emissions and the removal of the TW-2 Recovery Well Air Stripping Tower (P001) permit from RAPCA's records. In a letter received by former GM on June 27, 2008, RAPCA approved the stripper tower to be listed as de minimis air contaminant source and exempt from air permitting requirements. RAPCA stated in the approval letter that RAPCA will not process the submitted PTO application and will request the Ohio EPA to withdraw P001 and Permit-To-Install 08-3161 issued on October 26, 1994. Table 4 summarizes the VOC results for the monthly air stripper tower influent stream during 2010. The monthly air stripper influent data are also presented in Figure 7, for the period from the initial start-up in January 1996 through December 2010. Table 5 summarizes the VOC results for the monthly air stripper tower effluent stream during 2010. Table 6 summarizes the VOC results for the monthly DN-13 sampling during 2010. All analyses were conducted in accordance with methods specified in the Final Interim Measures Design Plans (Geraghty & Miller, Inc. 1995).

2.1.3 Supplemental Groundwater Monitoring

Select monitoring wells were sampled in January, April, and October 2010 to supplement data sets for better understanding groundwater trends associated with groundwater conditions. The October 2010 groundwater sampling event was also to support Vapor Intrusion Verification Investigation Work Plan (ARCADIS, Inc. 2010c). A

summary of the 2010 supplemental sampling events, including the number of monitoring wells and analytical parameters, are presented on Table 1.

Groundwater samples were collected from wells using low-flow sampling methodology following procedures outlined in SOP #21 (ARCADIS G&M, Inc., 2002). Field parameters including pH, specific conductance, temperature, oxidation/reduction potential, and dissolved oxygen were measured using a multi-parameter flow-through cell during purging and prior to sampling each well.

All groundwater samples were collected and managed under standard chain-of-custody procedures, and validated in accordance with the approved Supplemental RFI Work Plan and the RFI Quality Assurance Project Plan (Geraghty & Miller, Inc., 1997a). The Supplemental RFI Quality Assurance Project Plan will be followed until the Draft Quality Assurance Project Plan for RCRA Corrective Action is approved by the U.S. EPA (draft report was submitted to the U.S. EPA on December 23, 2003 and an updated draft was submitted to U.S. EPA on November 19, 2010). All pertinent field data were recorded electronically. Analytical results are presented and discussed in Section 2.2.3.

2.1.4 Site-Wide Groundwater Monitoring

In accordance with the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002) with modifications from the Site-Wide Groundwater Monitoring Report for 2008 (ARCADIS, Inc. 2009), only monitoring wells sampled on an annual basis for the site-wide monitoring event were sampled in September 2010. Monitoring wells designated to be sampled on a five-year basis will be sampled next in 2013. For a summary of the site-wide monitoring well sampling program, see Table 21 of the Site-Wide Groundwater Monitoring Report for 2009 (ARCADIS, Inc. 2010b). A summary of the September 2010 annual sampling event, including the number of monitoring wells and analytical parameters are presented on Table 1. Well construction and survey data for the wells used in the site-wide program are presented in Table 7.

Groundwater samples were collected from specified wells using low-flow methodology following procedures outlined in SOP #21 (ARCADIS G&M, Inc., 2002). Field parameters including pH, specific conductance, temperature, oxidation/reduction potential, and dissolved oxygen were measured during purging of each well using a multi-parameter flow-through cell. One groundwater sample from well DN-13 was collected through the sampling valve according to SOP #28 (ARCADIS G&M, Inc., 2002).

Similar to each supplemental sampling event in 2010, all groundwater samples were collected and managed under standard chain-of-custody procedures, and validated in accordance with the approved Supplemental RFI Work Plan and the RFI Quality Assurance Project Plan (Geraghty & Miller, Inc., 1997a). All pertinent field data were recorded electronically. Field parameter data for the site-wide groundwater monitoring event are presented in Appendix B. Analytical results are presented and discussed in Section 2.2.3.

2.1.5 Laboratory Analytical Methods

Groundwater samples were analyzed for the site-specific VOC parameter list using SW 846 Method 8260. This parameter list was developed after evaluating data from the September 1999 baseline groundwater sampling event and the one-time sampling event conducted in September/October 2000 (which included analysis of Appendix IX VOCs and cis-1,2-DCE, SVOCs, and metals), conducted as part of the Former Oil House Area corrective measures. The site-specific VOC parameter list is: benzene, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), ethylbenzene, tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, and xylenes. Select groundwater samples from upper aquifer monitoring wells collected during the site-wide groundwater monitoring event were also analyzed for the following biogeochemical indicator parameters: manganese (total and dissolved), iron (total and dissolved), sulfate, sulfide, total organic carbon (TOC), chlorides, dissolved gases (ethane and ethene), and methane. Table 1 lists specific field, laboratory, biogeochemical indicator parameters, and field and laboratory analytical methods. All samples were submitted to TestAmerica Laboratories, Inc. in North Canton, Ohio or Microseeps Inc. in Pittsburgh, Pennsylvania. Only ethene, ethane, and methane samples were submitted to and analyzed by Microseeps. A complete set of groundwater results from 2010, including quality assurance/quality control (QA/QC) samples, are presented in Appendix C.

2.2 Groundwater Monitoring Program Results

2.2.1 Groundwater Elevation Monitoring

As part of the site-wide assessment of current groundwater conditions, groundwater levels were measured to determine groundwater flow directions in the upper and lower aquifers and to determine vertical gradients between the two aquifers. One groundwater elevation monitoring event was completed in 2010 on September 20 and

21, 2010 as part of the site-wide groundwater monitoring. The groundwater level measurement data is presented on Table 8.

2.2.1.1 Upper Aquifer

The upper aquifer potentiometric surface on September 20 and 21, 2010 (Figure 8) illustrates that upper aquifer groundwater flow is generally from northeast to southwest. TW-2 was measured during the September 2010 event and was operational. The September 2010 measurements show that the TW-2 groundwater level was lower than the water levels in nearby wells (GM-16, GM-17, 4S, and WSU-24) indicating capture in the vicinity of recovery well. A comparison of the September 2010 groundwater flow conditions to the November 2009 groundwater flow map for the upper aquifer (ARCADIS, Inc. 2010c) indicates a similar gradient and flow direction across the Site. The 2010 upper aquifer groundwater flow patterns are generally consistent with groundwater flow conditions since TW-2 operation was initiated in January 1996.

Table 9 presents the 2010 monthly precipitation totals, recorded by the National Weather Service, and the deviation from calculated average amounts. The 2010 annual total precipitation recorded at the Dayton, Ohio monitoring station was 33.60 inches, which was 4.61 inches below average. Precipitation for the months of March, May, July, and November was above normal, while precipitation for all other months was below normal.

The average hydraulic gradient of the upper aquifer, calculated from site-wide groundwater level measurements in September 2010 was 0.0006 foot/foot (ft/ft). The groundwater flow velocity for the upper aquifer was calculated using the following equation:

$$V_w = Ki/N_e$$

where

V_w = groundwater flow velocity (feet per day [ft/day])

K = hydraulic conductivity (ft/day)

i = hydraulic gradient (ft/ft)

N_e = effective porosity

Hydraulic characteristics of the upper aquifer were determined by evaluation of data from pumping tests conducted in 1985 and in 1989. The median hydraulic conductivity value estimated from pumping test data was 1,650 ft/day, and effective porosity was assumed to be 0.3 to 0.5. Using hydraulic gradients for September 2010, groundwater flow velocities in the upper aquifer ranged from 1.89 ft/day to 3.14 ft/day. Assuming the most extreme condition (i.e., no retardation or retardation factor [R_d] equal to 0), the rate of VOC migration could equal the rate of groundwater flow. However, soil-VOC interaction does occur, and, therefore, the actual VOC migration rates are slower than that of groundwater flow. Most of the VOCs detected in the upper aquifer at the Site are likely to have a R_d ranging from 2 to 10 (Walton 1985), so the rate of migration of the VOCs in the upper aquifer could be as low as 0.19 ft/day.

During the Supplemental RFI program conducted in August 1998 at the Former Oil House Area, slug tests were conducted on three monitor wells (GM-23, GM-27 and GM-28) to assess aquifer characteristics in this area of the Site. These slug tests determined that hydraulic conductivity in the upper aquifer in this area is lower than the hydraulic conductivity calculated on a site-wide basis. Hydraulic conductivity of the portion of the aquifer above the upper clay till at the Former Oil House Area was determined to be approximately 43 ft/day. Below the upper clay till, the hydraulic conductivity was determined to be 54 ft/day. Using hydraulic gradients from September 2010, the groundwater flow velocities in the upper aquifer above the Former Oil House Area ranged from 0.138 ft/day to 0.230 ft/day. As discussed above, most of the VOCs detected in the lower aquifer groundwater at the Moraine Facilities are likely to have an R_d ranging from 2 to 10 (Walton 1985), so the rate of migration of the VOCs in the upper aquifer at the Former Oil House Area in September could be as low as 0.014 ft/day.

2.2.1.2 Lower Aquifer

The lower aquifer potentiometric surface for September 20 and 21, 2010 (Figure 9) shows groundwater flow in the lower aquifer to be generally from northeast to southwest. County Well DN-13, located south of the former Delphi Thermal facility in the Dryden Road North Wellfield, was in operation during groundwater level measurements and had greater than 90 feet of drawdown. This localized cone of depression around DN-13 is an approximate depiction and is shown on Figure 9.

No significant change in the overall flow conditions were noted in the September 2010 lower aquifer groundwater elevation data in comparison with the November 2009 groundwater flow map. The average hydraulic gradients of the potentiometric surface

in the lower aquifer, calculated from groundwater level measurements September 2010 were 0.0007 ft/ft. Using a hydraulic conductivity of 400 ft/day, assuming a porosity of 0.3 to 0.5, and using the equation presented earlier ($V_w = Ki/N_e$), groundwater flow velocity in the lower aquifer ranged between 0.57 ft/day and 0.95 ft/day. As discussed above, most of the VOCs detected in the lower aquifer groundwater at the Moraine Facilities are likely to have an R_d ranging from 2 to 10 (Walton 1985), so the rate of migration of the VOCs in the lower aquifer in September 2010 could be as low as 0.06 ft/day.

2.2.2 Vertical Gradients

The groundwater level measurements collected on September 20 and 21, 2010 were used to determine the direction and magnitude of vertical gradients between the upper and lower aquifers (Table 10). The vertical gradients were calculated using the following equation:

$$i = h_2\text{-}h_1/d$$

where

h_2 = hydraulic head of lower well A (ft)

h_1 = hydraulic head of upper well B (ft)

d = distance between midpoint of screen for well A and B (ft)

i = vertical gradient

The magnitude and direction of vertical gradients indicate whether the potential exists for groundwater to flow vertically, and which direction it may flow (positive for an upward gradient and negative for a downward gradient). Calculated vertical gradients ranged from 0.0134 ft/ft upward (W-4-N/HR-14) to 0.0198 ft/ft downward (GM-16/GM-15).

At the northern (upgradient) end of the Site, no or a small vertical gradient was present in upper/lower monitoring well pairs HR-11/HR-12 and HR-9/HR-10.

The vertical upgradient at well pairs immediately downgradient (south) of the closed North Settling Lagoon was downward in well pairs W-3-N/HR-15 and upward in well pair W-4-N/HR-14. The vertical gradient at well pair HR-3/HR-13 (side gradient to the

closed North Settling Lagoon) was upward. Well pairs in the vicinity of Landfill L1 (GM-16/GM-15, GM-2/GM-1, GM-18/GM-13, GM-17/GM-11, GM-6/GM-3, and 4S/GM-5) all had downward vertical gradients. The downward vertical gradient at the other six well pairs near Landfill L1 was likely due to the proximity of these well pairs to lower aquifer extraction well DN-13. Downgradient of the Site, the vertical gradient was downward for well pair GM-10/GM-9.

At the Former Oil House Area, groundwater level measurements in upper aquifer well pair GM-23/GM-27 (above the upper clay till/beneath the upper clay till) were used to evaluate the vertical gradient in the upper aquifer. The vertical gradient was upward in the upper aquifer across the upper clay till present at the Former Oil House Area. Well pair GM-23/GM-39 was used to evaluate the vertical gradient in the lower aquifer compared to the upper aquifer. An upward vertical gradient was present across both the upper clay till and the regional clay till.

Downgradient of the Site near Holes Creek, till is not present; and upon evaluation of vertical gradients in this area, well pairs GM-65S/GM-65D show an upward gradient and GM-55/GM-56 show a downward vertical gradient.

2.2.3 Groundwater Monitoring Analytical Results

As described in Section 2.1.4, groundwater was evaluated on a site-wide basis for the presence of the site-specific list of VOCs. Table 3 presents the results for the site-wide groundwater sampling event completed in September 2010 for the upper and lower aquifer. As discussed in Section 2.1.3, select monitoring wells were sampled in January and April; and in October 2010 to supplement groundwater data sets for better understanding of groundwater trends and to support the Vapor Intrusion Verification Investigation (ARCADIS, Inc. 2010c). Analytical data for 1999 through 2010 groundwater sampling events are presented on Figures 10 and 11 for the upper and lower aquifer wells, respectively. The upper aquifer groundwater results are presented in Section 2.2.3.1 and evaluated based on groundwater quality at the upgradient plume contributions, source areas (Former Oil House Area and other secondary sources), in relation to current corrective measures (IRZs and capture zone), upgradient/downgradient of closed settling lagoons and plume migration. The lower aquifer groundwater results are presented in Section 2.2.3.2.

2.2.3.1 Upper Aquifer

2.2.3.1.1 Upgradient Contributions

Monitoring well HR-9 is located upgradient of the source area and Site. In 2010, the upgradient upper aquifer monitoring well sampled exhibited the presence of PCE, TCE, and daughter products. The concentration of PCE was 9.5 ug/L in 2010.

Two key observations can be made relative to upgradient groundwater quality. First, the detected VOCs are consistent with historical values for upgradient groundwater quality as indicated in the Description of Current Conditions (DOCC) (Geraghty & Miller, Inc. 1991 and 1997b) and RFI Reports (ARCADIS Geraghty & Miller, Inc. 2000a and 2000b) for the former Moraine Facilities (including the 1999 baseline sampling results). This confirms that upgradient sources of VOCs not related to former GM operations continue to exist in the local area. The highest VOC concentrations upgradient to the Site are 1,1,1-TCA, TCE and the breakdown products 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE, suggesting that the upgradient releases have been migrating long enough to allow for degradation of the chlorinated VOCs 1,1,1-TCA, PCE, and/or TCE to occur. Second, the types of VOCs detected upgradient are similar to those detected further downgradient beneath the Site, indicating that total VOC concentrations detected beneath the Site include both upgradient (off-site) and on-site contributions.

2.2.3.1.2 Source Areas

To evaluate the source areas of VOCs at the Site, five upper aquifer monitoring wells (GM-23, GM-59, GM-60, GM-74S and GM-75S) were sampled in 2010. Monitoring well GM-23 is located in the Former Oil House Area and is screened above the upper clay till. Monitoring wells GM-59 and GM-60 are located in the former Vehicle Distribution Center/former Moraine Engine building footprint. Monitoring well GM-59 is screened above the upper clay till and GM-60 is screened above the region clay till. Monitoring well GM-74S is screened above the regional clay till and is located at the former Vehicle Distribution Center/former Moraine Engine building foot print. Monitoring well GM-75S is located in the southwest corner of the former Moraine Assembly building and is screened at the regional clay till.

- TCE and PCE concentrations at GM-23 have decreased, to 17J ug/L and 50 ug/L, respectively, in 2010, while concentrations for cis-1,2-DCE and vinyl chloride have increased historically but are now decreasing. On October 17, 2005, cis-1,2-DCE

in GM-23 reached a concentration of 19,000 ug/L and has since steadily decreased to a concentration of 490 ug/L in 2010. Vinyl chloride follows a similar trend.

- In 2010, concentrations of PCE, TCE, and cis-1,2-DCE were detected at elevated concentrations in wells GM-59, GM-60, GM-74S and GM-75S.

    - PCE concentrations in GM-59 had reached 750 ug/L in 2008 and subsequently have decreased to 520 ug/L in 2010. TCE concentrations in GM-59 had reached 750 ug/L in 2008, decreased to 170 ug/L in 2009 and increased to 350 ug/L in 2010. Concentrations of cis-1,2-DCE has remained consistently low in GM-59 since a detection of 41 ug/L in 2008.

    - Concentrations of PCE and TCE in GM-60 remained consistent with concentrations in 2009; however, concentrations of cis-1,2-DCE reached a detection of 940 ug/L in 2010, which is an increase from the concentration of 160 ug/L in 2009.

    - Concentrations of PCE at GM-74S increased slightly from 140 ug/L in 2007 to 200 ug/L in 2010, while concentrations of TCE decreased slightly from 83 ug/L in 2007 to 44 ug/L in 2010.

    - Concentrations of PCE at GM-75S were detected at 650 ug/L in 2010 that is a slight increase from 640 ug/L in 2009. The concentration of TCE was 890 ug/L in 2010, which is an increase from the previous concentration of 260 ug/L in 2009. Concentrations of cis-1,2-DCE remained consistent from 2009 to 2010.

Monitoring well GM-23 is within the zone of influence of current corrective measure (RZ-1) and the groundwater concentration trends are presented in Figure 12. The wells (GM-59, GM-60, GM-74S and GM-75S) to the southeast of the Former Oil House Area are currently not addressed by ongoing corrective measures; however, this area is proposed to be addressed under final corrective measures discussed in CMP and CMP addendum to include a remedy to address these concentrations (ARCADIS, Inc. 2008 and 2010a).

2.2.3.1.3 Corrective Measures Performance Results

As described in Section 1.4, the RZ network consists of RZ-1, RZ-3 (East and West), and RZ-4 East. In 2010, carbon solution was introduced into the groundwater through introduction points shown on Figures 3 and 4. Operation of the RZs was monitored through the collection of field parameter measurements, and laboratory analyses of biogeochemical indicator parameters and site-specific VOCs, according to the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002) and revisions in the draft Site-Wide Groundwater Monitoring Report for 2009 (ARCADIS, Inc. 2010b). Concentrations of site-specific VOCs as related to the performance of the RZs are presented in this section. Groundwater concentration trends for the RZ performance monitoring wells are presented in Figure 12 (RZ-1), Figure 13 (RZ-3 East), Figure 14 (RZ-3 West), and Figure 15 (RZ-4 East).

RZ-1

As stated in Section 1.4, RZ-1 was installed as a corrective measure to remediate the area downgradient of the primary source area at the Site (Former Oil House Area). Three upper aquifer wells (GM-23, GM-29, and GM-28) are used to monitor the groundwater quality to evaluate the effectiveness of the RZ (Figure 12).

- PCE concentrations at GM-23 have decreased from 15,000 ug/L in 2001 to 50 ug/L in 2010. TCE concentrations have decreased from 2,200 ug/L in 2001 to 17 J ug/L in 2010. Concentrations of cis-1,2-DCE have decreased from 19,000 ug/L in 2005 to 490 ug/L in 2010. Vinyl chloride concentrations have increased historically to a concentration of 4100 ug/L in 2006 and subsequently have decreased to a current concentration of 500 ug/L in 2010. Concentrations of trans-1,2 DCE have been below detection limits since introductions began in 2000; however, concentrations peaked in 2006 at 270 ug/L and have subsequently decreased to 16 J ug/L in 2010.

- Monitoring well GM-29 is upgradient to the original RZ-1 2002 addition (Section 1.4) and is within the zone of influence of carbon introductions conducted in the Former Oil House Area after RZ-1 was expanded in 2002. Concentrations of PCE and TCE have remained consistent since 2000 with current concentrations of 17J ug/L and 330 ug/L in 2010, respectively. Concentrations of cis-1,2-DCE had a peak concentration of 2,871 ug/L in 2000, and has subsequently decreased in concentrations to 660 ug/L in 2010. Concentrations for vinyl chloride have

fluctuated since introductions began in 2000, but have decreased since 2005, with a concentration of 59 ug/L in 2010.

- Monitoring well GM-28 is used for evaluating groundwater conditions downgradient of RZ-1. Concentrations of PCE, TCE, and cis-1,2-DCE have remained consistently low since peak concentrations in 1999. Vinyl chloride concentrations at GM-28 have been below detection limits except for concentrations of 12.4 ug/L and 6.5 ug/L in 2000 and 2008, respectively. Since 2008, concentrations have decreased from 6.5 ug/L to 2.2 ug/L in 2010.

RZ-3 East

As stated in Section 1.4, RZ-3 East is located south of former Moraine Engine Plant, which is downgradient and cross-gradient to the east (Figure 8) of the Former Oil House Area. Two upper aquifer wells (GM-22 and GM-21) are used to monitor the groundwater quality to evaluate the effectiveness of the RZ (Figure 13).

- GM-22 serves as an upgradient well for RZ-3 East. Since introductions began in 2000 and observed in 2010, concentrations of PCE, TCE, and cis-1,2-DCE have been consistently low. Concentrations in PCE and cis-1,2-DCE peaked in 2001 at 4.9 ug/L and 8.5 ug/L, respectively. Concentrations of TCE reached a peak concentration of 10 ug/L in 2004.

- Monitoring well GM-21 serves as a downgradient well for RZ-3 East. PCE concentrations in this well have consistently been below detection limits, except for 2008 when PCE was detected at a concentration of 0.56J ug/L. Concentrations of TCE in well GM-21 peaked in 2002 at 230 ug/L and have decreased to a concentration of 3.2 ug/L in 2010. Concentrations of cis-1,2-DCE has fluctuated since a peak concentration of 100 ug/L in 2003, with a concentration of 3.9 ug/L in 2010.

RZ-3 West

As stated in Section 1.4, RZ-3 is located south of former Delphi Thermal Moraine. Three upper aquifer wells (East, GM-6, and GM-8) are used to monitor the groundwater quality to evaluate the effectiveness of the RZ (Figure 14).

- Monitoring well East serves as the upgradient well for RZ-3 West. Concentrations of PCE and TCE have decreased in East since peaking at 56 ug/L in 2001 and

97.2 ug/L in 2000, respectively. The concentrations of cis-1,2-DCE have fluctuated with a peak of 77.3 ug/L in 2000 and most recent concentration of 4.1 ug/L in 2006. Monitoring well East was not sampled in 2010.

- Monitoring well GM-6 serves as a downgradient well for RZ-3 West. Concentrations of PCE and TCE have decreased in GM-6 from 81.4 ug/L and 78 ug/L in 1999 to 0.38J ug/L and 6.6 ug/L in 2010, respectively. Concentrations of cis-1,2-DCE and vinyl chloride have fluctuated since 1999, with peak values of 52.9 ug/L in 1999 and 12 ug/L in 2002, respectively. Current concentrations of cis-1,2 DCE and vinyl chloride are 4.9 ug/L and 1.6 ug/l, respectively, in 2010.

- Monitoring well GM-8 also serves as a downgradient well for RZ-3 West. Concentrations of PCE and cis-1,2-DCE have remained consistently low or below detection limits since 1999. Concentrations of TCE have remained consistently low or below detection limits since 2000. Concentrations of vinyl chloride have fluctuated and remain at a low concentration or below detection limit since 2007 with a current concentration of 0.44J ug/L in 2010.

RZ-4 East

As stated in Section 1.4, RZ-4 East was designed to address VOC impacts identified west of RZ-3 West (Figure 15).

- Monitoring well GM-19S serves as the downgradient well for RZ-4 East. Concentrations of PCE and TCE have been at low concentrations or below detection limits since 2006. Concentrations of cis-1,2 DCE have been at low concentrations or below detection limits since 2007. Concentrations of vinyl chloride has reached a peak concentration of 9.3 ug/L in 2008 with current concentrations below the detection limit in 2010.

2.2.3.1.4 Closed Settling Lagoon Monitoring Results

Groundwater quality is monitored upgradient and downgradient of the closed South and North Settling Lagoons as described in Section 2.1. Upgradient monitoring wells used for the North Settling Lagoon are HR-4 and for South Settling Lagoon are HR-17 (Figure 2). Wells downgradient of the closed North (W-2-N, W-3-N, W-4-N) and South (W-2-S, W-3-S, W-4-S) Settling Lagoons (closed through in-situ solidification and installation of a cover system in 2001, after the 1999 baseline sampling event) were

sampled for both the site-wide groundwater monitoring and post-closure monitoring programs.

North Settling Lagoon

- Concentrations of PCE, TCE and daughter products at HR-4 have been low or below detection limits since 1999.

- Concentrations of PCE, TCE, and daughter products at W-2-N have been low or below detection limits since 1999.

- Concentrations of PCE and TCE at W-3-N have been generally decreasing since peak values in 2001 at 9.0 ug/L and 2.1 ug/L, respectively. Current concentrations of PCE and TCE are below detection limits in 2010. Concentrations of cis-1,2 DCE had a peak concentration of 291 ug/L in 1999 and has been generally decreasing to a current concentration of 56 ug/L in 2010. Vinyl chloride had a peak concentration of 24.0 ug/L in 2000 and has a current concentration of 2.4 ug/L in 2010.

- Concentrations of PCE and vinyl chloride at W-4-N have been low or below detection limits since 1999. Concentrations of TCE had a peak concentration of 15 ug/L in 2009 and decreased to 13 ug/L in 2010. Concentrations of cis-1,2-DCE had a peak concentration of 7.9 ug/L in 2010.

South Settling Lagoon

- Concentrations of PCE and TCE at HR-17 peaked at 120 ug/L and 31 ug/L, respectively, in 2008 and have been decreasing since with a current concentration of 60 ug/L and 18 ug/L, respectively in 2010. Concentrations of cis-1,2 DCE peaked at 7.1 ug/L in 2004 and have been generally decreasing to a current concentration of 2.2 ug/L in 2010. Vinyl chloride has been below the detection limit since 1999.

- Concentrations of PCE, cis-1,2-DCE, and vinyl chloride in W-2-S have been low or below detection limits since 1999. Concentrations of TCE have been generally consistent, with a peak concentration of 6.6 ug/L in 2009 and a current concentration of 5.9 ug/L in 2010.

- Concentrations of PCE, TCE, cis-1,2-DCE, and vinyl chloride in W-3-S have been low or below detection limits since 1999.

- Concentrations of PCE, TCE, and cis-1,2-DCE in W-4-S have slightly increased since 1999 from 30.5 J ug/L, 14.7 J ug/L, and 4.4 ug/L, respectively, to a current concentration of 31 ug/L, 20 ug/L, and 9.1 ug/L, respectively in 2010. Concentrations of vinyl chloride have been below the detection limits since 1999.

2.2.3.1.5 Plume Migration

The upper aquifer plume migration from the source area (Former Oil House Area) is monitored downgradient on Site, at the property boundary, and downgradient off site. Additional wells (GM-25 and GM-77S) were sampled as part of the Vapor Intrusion Investigation (located on the eastern property boundary) and additional monitoring wells (GM-47, GM-50, and GM-63) were sampled in Riverview Plat neighborhood.

Downgradient On-Site

Monitoring wells GM-43, GM-44, GM-45, and GM-35 were sampled to monitor the plume between the source area and property boundary. Wells GM-43 and GM-44 are located adjacent to the former Building 14 footprint, southwest of the Former Oil House Area. Well GM-35 is located south of the Waste Pile/Staging Area and upgradient of RZ-3 West (Figure 2).

- PCE concentrations in GM-43 have been generally consistent since 2004, with a current concentration of 26 ug/L. TCE concentrations have been increasing since 2004, from 100 ug/L to 170 ug/L in 2010. Concentrations of cis-1,2-DCE have fluctuated from 210 ug/L in 2004 to 150 ug/L in 2009 and has increased to a peak concentration of 220 ug/L in 2010. Vinyl chloride has been low or below detection limits since 2004.

- Monitoring well GM-44 was included in the supplemental groundwater sampling in 2010. Comparison of values from the only other data collected at this well in 2004 indicated that concentrations of PCE have increased from 57 ug/L to 70 ug/L in 2010 while TCE has decreased from 140 ug/L to 110 ug/L in 2010. Concentrations of cis-1,2-DCE has decreased from 130 ug/L to 48 ug/L in 2010. Vinyl chloride was below the detection limit in 2004 and 2010.

- Monitoring well GM-45 was added to the supplemental groundwater sampling in 2010. PCE and TCE concentrations have been generally consistent, with current concentrations at 200 ug/L and 180 ug/L, respectively in 2010. Cis-1,2-DCE concentrations have decreased since 2004, from 79 ug/L to 36 ug/L in 2010. Vinyl chloride concentrations have been below detection limits since 2004.

- PCE concentrations in GM-35 have slightly increased since 2003 from 21 ug/L to 37 ug/L in 2010. TCE concentrations have been generally decreasing since 2003, at a peak of 270 ug/L to 120 ug/L in 2010. Cis-1,2-DCE concentrations have been generally decreasing since 2003, at a peak of 300 ug/L to 73 ug/L in 2010. Vinyl chloride concentrations have been generally decreasing since 2003, at a peak of 59 ug/L to 4.3 ug/L in 2010.

Monitoring wells HR-2 and HR-7 are west (side-gradient) of the Former Oil House Area and south of Landfills L2 and L3. In addition, HR-7 is downgradient of the closed North Settling Lagoon. Monitoring well HR-2 is part of the annual program to monitor groundwater concentrations south of Landfill L2 and L3. Monitoring well HR-7 on the western most property boundary of the former Building 14 was added to the site-wide annual program at request of the U.S. EPA (BOW Environmental Solutions, Inc.2010).

- Concentrations of PCE, TCE, vinyl chloride at HR-2 have been low or below the detection limits since 1999. Concentrations of cis-1,2-DCE have been decreasing since 1999 from 96 ug/L to 2.8 ug/L in 2010.

- Concentrations of PCE, cis-1,2-DCE, and vinyl chloride at HR-7 have been low or below the detection limits since 1999. Concentrations of TCE have slightly decreased from 9.8 ug/L in 1999 to 7.5 ug/L in 2010.

Property Boundary

Monitoring wells GM-2, GM-6, and GM-8, along with extraction well TW-2 are located at the southwestern most property boundary (Landfill L1), downgradient of the Former Oil House Area, and RZ-3 West. These wells are used to monitor the groundwater quality at the property boundary. GM-6 and GM-8 are used to monitor the performance of RZ-3 West and are discussed in Section 2.2.3.1.2. Monitoring wells GM-25 (located on the eastern property boundary) and GM-77S (located east of the eastern property boundary) were sampled as part of the Vapor Intrusion Investigation to verify concentrations in this area.

- Concentrations of PCE and TCE in GM-2 have decreased from 6 ug/L and 61.6 ug/L in 1999 to 0.44J ug/L and 0.95J ug/L in 2010. Concentrations of cis-1,2-DCE reached a peak concentration of 39.2 ug/L in 2000 and has decreased since to 3.8 ug/L in 2010. Concentrations of vinyl chloride have been low or below the detection limit since 1999.

- Concentrations of PCE, TCE, cis-1,2-DCE, and vinyl chloride at TW-2 have been low or below detection limits for the past two years.

- Concentrations of PCE, TCE, cis-1,2-DCE, and vinyl chloride at GM-25 and GM-77S were below detection limits in 2010.

Downgradient Off-Site

Monitoring wells GM-16, GM-47, GM-50, and GM-63 are located west of Landfill L1 and south of the closed South Settling Lagoon. GM-47 and GM-50 are paired upper aquifer wells. GW-47 is screened just above the regional clay till and GM-50 is screened near the water table. These wells are used to monitor plume migration south of RZ-4 East and RZ-3 West, within the Riverview Plat neighborhood (northwest of intersection of Main Street and Dryden Road - Figure 2).

- Concentrations of PCE and TCE concentrations in GM-16 have increased since 1999 to current concentrations of 110 ug/L and 75 ug/L in 2010, respectively. Cis-1,2-DCE concentrations have fluctuated, with a peak concentration of 43 ug/L in 2007, and have decreased since to 2.2J ug/L in 2010. Concentrations of vinyl chloride have been below detection limits since 1999.

- Concentrations of PCE and TCE in GM-47 have decreased since 2006, from 78 ug/L and 50 ug/L, respectively to 60 ug/L and 22 ug/L in 2010. Concentrations of cis-1,2-DCE have fluctuated, with a peak concentration of 170 ug/L in 2007 and has decreased to 42 ug/L in 2010. Concentrations of vinyl chloride have been low or below detection limits since 2006.

- PCE concentrations in GM-50 have fluctuated since 2006, with a peak concentration of 180 ug/L in April 2006, and a current concentration of 130 ug/L in 2010. Concentrations of TCE have fluctuated since 2006, with a peak concentration of 140 ug/L in September 2010. Cis-1,2-DCE concentrations have fluctuated since 2006, with a peak concentration of 130 ug/L in 2007 and has

since decreased to 4.0J ug/L in September 2010. Concentrations of vinyl chloride have been low or below detection limits since 2006.

- Monitoring well GM-63 was included for supplemental groundwater sampling in 2010. Concentrations of PCE and TCE have been generally consistent from 2006, with current concentrations of 150 ug/L and 140 ug/L. Concentrations of cis-1,2-DCE have been consistently low, with a current concentration of 3.2J ug/L in 2010. Concentrations of vinyl chloride have been low or below detection limits since 2006.

Additional off-site wells installed during the supplemental groundwater investigation further delineated downgradient concentrations including well installation west of the Great Miami River (GM-52, GM-55, GM-62, GM-65S, GM-78, GM-79, GM-80 and GM-81). Concentrations of PCE have been detected in monitor wells GM-52, GM-55, GM-62, GM-65S, GM-78 and GM-80 and range from 2.6 ug/L (GM-80) to 90 ug/L (GM-52) in 2010. Concentrations of TCE have been detected in monitor wells GM-52, GM-65S, GM-79, GM-80 and GM-81 and range from 1.2 ug/L (GM-81) to 50 ug/L (GM-52) in 2010.

At the off-site downgradient well GM-26, which was defined for the site-wide groundwater monitoring program as the point of compliance (POC) well for the upper aquifer, no VOCs were detected in the 1999 baseline event, while PCE was detected below the MCL at 1.6 ug/L in 2010.

2.2.3.2 Lower Aquifer Groundwater Quality

This section includes a discussion of the groundwater quality in lower aquifer monitoring wells shown on Figure 6 that are part of the site-wide program. Monitoring well GM-9 located off-site downgradient was added to the site-wide annual program at request of the U.S. EPA (BOW Environmental Solutions, Inc.2010).

In 2010, the upgradient lower aquifer monitor well HR-12 exhibited the presence of site-specific VOCs. The detected VOCs in 2010 included 1,1-DCA and cis-1,2-DCE suggesting that upgradient releases of chlorinated VOCs has occurred and have been migrating long enough to allow for degradation of the chlorinated VOCs 1,1,1-TCA, PCE, and/or TCE to occur. The detected VOCs in HR-12 are consistent with historical values for upgradient groundwater quality as indicated in the DOCC (Geraghty & Miller, Inc. 1991 and 1997b) and RFI Reports (ARCADIS Geraghty & Miller, Inc. 2000a and 2000b) for the former Moraine Facilities. This confirms that upgradient sources of

VOCs, not related to former GM operations, continue to exist in the lower aquifer in the local area. Additionally, the types of VOCs detected upgradient are similar to those detected further downgradient beneath the Site, indicating that total VOC concentrations detected beneath the Site include both upgradient (off-site) and on-site contributions.

On-site lower-aquifer monitor wells located in the source that were part of the site-wide monitoring program in September 2010 included GM-54, GM-68D, GM-74D, and GM-75D. Wells GM-54, GM-68D, GM-74D and GM-75D were installed in 2006 to 2008. Detected VOCs in 2010 included PCE that ranged from 92 ug/L in GM-54 to 320 ug/L in GM-75D. Concentrations of TCE ranged from 2.2 J ug/L in GM-54 to 200 ug/L in GM-75D. The area of the Site monitored by these wells is currently not addressed by corrective measures but is included in the proposed final corrective measures discussed in the 2008 CMP and CMP Addendum (ARCADIS, Inc. 2008 and 2010a).

Other on-site lower aquifer monitoring wells HR-15 (located south of the closed North Settling Lagoon) and GM-19D (located just south of RZ-4 East) were sampled in 2010. Concentrations of PCE, TCE and cis-1,2 DCE at HR-15 and GM-19D were at low concentrations or below the detection limits in 2010.

Monitoring well GM-77D is located east of the eastern property boundary. Concentrations of TCE, cis-1,2-DCE, and vinyl chloride were all below detection limits in 2010. The concentration of PCE was 18 ug/L in 2010.

The off-site downgradient wells GM-11, GM-15, and GM-20D were defined for the site-wide groundwater monitoring program as the POC wells for the lower aquifer. The MCL for TCE (5 ug/L) was exceeded in wells GM-11, GM-15, and GM-20D in 2010. All other detected VOCs in these POC wells were below MCLs. Off-site wells further downgradient that were sampled in September 2010 included GM-9, GM-65D and DN-13. Concentrations of VOCs at GM-65D are low or below detection limits. Monitoring wells GM-9 and extraction well DN-13 have concentrations of TCE above or equal to the MCL. The groundwater in the vicinity and downgradient of these wells is captured in the lower aquifer capture zone well, DN-13. Concentrations of TCE in off-site side-gradient well GM-84 were consistent in 2010 with previous concentrations. Concentrations of cis-1,2-DCE and vinyl chloride in GM-83D were consistent in 2010 with previous concentrations.

3. Corrective Measure Performance

3.1 RZ Performance Results

A detailed assessment of the effectiveness of the RZs and the results of this monitoring are presented in Appendix D and summarized below.

- Aquifer conditions were reducing within and downgradient of the reactive zones due to the introduction of carbohydrate, as evidenced by the field parameters and biogeochemical data;

- The target compounds (PCE and TCE) were reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to end products (ethene and ethane) based on the VOC and light hydrocarbon data; and

- Enhanced reductive dechlorination continued to achieve the desired reduction of VOC concentrations in groundwater.

3.2 Capture Zone Performance Results

Groundwater flow maps depicted on Figure 8 and Figure 9 indicate the location of the capture zone corrective measures at the southern end of the former Delphi Thermal Moraine site for both the upper and lower aquifers, respectively. Additionally, it should be noted that these groundwater flow maps are consistent with the flow conditions predicted by a groundwater simulation, presented on Figures 13 and 15 of the draft Groundwater Flow Model Update (Appendix D of the CMP) (ARCADIS, Inc. 2008). Seasonal weather conditions vary throughout the year and this variation will have an impact on the groundwater elevations observed at the Site (Table 9). The observed elevation differences in 2010 are consistent with the below average precipitation in 2010 (4.61 inches). The September 2010 event closely matches the November 2009 groundwater flow across the Site. Water-level elevations in TW-2 are regularly monitored to ensure the water level does not fall below the well screen. If the water level approaches the well screen, the pumping rate is reduced for protection of the pump. Pumping rate adjustments were not necessary in 2010. The pumping rate for DN-13 was not adjusted; therefore, only seasonal variations influence water level elevations at DN-13. However, there has been an observed decrease in rate associated with normal pump wear. Similar capture has been maintained when compared to simulated flow conditions in Figures 13 and 15 of the Groundwater Flow

Model Update (Appendix D of the CMP) (ARCADIS, Inc. 2008) in both the upper and lower aquifers.

Figure 7 presents a graph of the influent concentration of total chlorinated VOCs and benzene, toluene, ethylbenzene, and xylenes (BTEX) compounds in TW-2 since start up of the recovery and treatment system in January 1996. The data shows a steady decline in total chlorinated VOCs and a significant decrease in VOC concentrations. The data indicates that the remediation at the Site is continuing to provide VOC mass reduction downgradient of RZ-3 West.

4. Corrective Active Completion Strategy

4.1 Effectiveness of Corrective Measure Activities

4.1.1 Background and Objectives

The goal of the corrective measures for groundwater at the Site is to reduce existing site-related groundwater concentrations to levels that are protective of reasonably expected future uses of groundwater. MLC's approach for achieving this goal is through a combination of the corrective measures that achieve plume migration control, reduce existing plume concentrations, and monitor performance of these measures. Once on-site groundwater concentrations are reduced sufficiently by active corrective measures (pumping and in-situ treatment) to ensure continued protection of reasonably expected groundwater uses, some, or all, of the active measures will be terminated. Groundwater monitoring will continue to verify that groundwater conditions remain acceptable, and that ultimately, groundwater concentrations at the POC defined for the upper and lower aquifers, decline below the appropriate protective levels (i.e., appropriate for the protection of the groundwater resource and its reasonably expected future uses). Data have been and will continue to be acquired during the implementation of the site-wide groundwater monitoring program to evaluate progress towards achieving this goal.

The need for continued operation of the remedial measures will be determined based on achieving and maintaining the following conditions:

1. Upper aquifer: consistent with the criterion stated in the approved RCRA Corrective Action Environmental Indicator Determination – Migration of Contaminated Groundwater Under Control (CA 750), the condition to be met in the upper aquifer is no migration of VOCs at concentrations exceeding appropriately protective levels (i.e., appropriate for the protection of the groundwater resource and its reasonably expected future uses as characterized in the RFI) beyond the existing area of contaminated groundwater. Based on the groundwater conditions established during the September 1999 baseline sampling event, the existing well GM-26 was identified as the POC monitoring point for ensuring that this condition is maintained.

2. Lower aquifer: consistent with the goal to maintain a usable aquifer, including off-site drinking water use, the condition to be met in the lower aquifer is no VOC concentrations exceeding appropriate protective levels (i.e., appropriate for the

protection of the groundwater resource and its reasonably expected future uses as characterized in the RFI) beyond the existing area of contaminated groundwater. Based on the groundwater conditions established during the September 1999 baseline sampling event, the existing wells GM-15, GM-11, and GM-20D were identified as the POC monitoring points for ensuring that this condition is maintained.

Once on-site groundwater concentrations are reduced sufficiently by active measures to be protective of reasonably expected future uses, some or all of these active measures will be terminated. Following termination of any active measures, MLC will continue its groundwater monitoring program to confirm that the conditions in the upper and lower aquifer continue to be met without these active measures.

4.1.2 Methodology

In accordance with the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002), groundwater data were compared to remediation target levels (RTLs) developed to ensure compliance with the above-stated conditions without active corrective measures. As defined in the Site-Wide Groundwater Monitoring Plan, these RTLs were calculated using the groundwater assessment methods developed in the Baseline and Supplemental Baseline Risk Assessments (ENVIRON 2000a, b) taking into consideration the current pumping conditions at and in the vicinity of the facility. Specifically, the MODFLOW groundwater flow model (Geraghty & Miller, Inc. 1994) developed for Delphi Thermal Moraine and the surrounding region (including former Moraine Engine and Moraine Assembly) is used to support estimation of RTLs which are concentrations in on-site groundwater at locations downgradient of the Former Oil House Area that would not be expected to result in exceedances of the MCL at the designated monitoring points.

As discussed in the 2008 CMP (ARCADIS, Inc. 2008), the MODFLOW groundwater flow model developed for the Site was updated to reflect changes in on-site pumping conditions and the refined hydrogeologic conceptual site model. In particular, due to the cessation of operations at the former Moraine Assembly facility in December 2008, production wells 11B and 12A are inactive. The MODFLOW model was updated to reflect flow conditions with wells 11B and 12A no longer operating (model scenario "1A" as defined in the CMP [ARCADIS, Inc. 2008]). Additional details regarding the refinements made to the Groundwater Flow Model are provided in Appendix D of the 2008 CMP (ARCADIS, Inc. 2008).

Using this approach and considering the scope of the annual groundwater monitoring program, MLC developed RTLs for the following remediation monitoring zones in both the upper and lower aquifer at and downgradient of the Former Oil House Area:

- Upper Aquifer
  - Former Oil House Area, (AOI 7 Shallow): the Former Oil House Area source area (wells GM-23, GM-29 and GM-30),
  - Zone S1: the monitoring zone immediately downgradient of RZ-1 (well GM-28),
  - Zone S1 to Zone S2: the monitoring zone between RZ-1 and RZ-2 (wells GM-28, and ME-6),
  - Zone S2: the monitoring zone immediately downgradient of RZ-2 (wells ME-6, ME-3, GM-31),
  - Zone S2 to Zone S3: the monitoring zone between RZ-2 and RZ-3 (wells ME-6, ME-3, GM-31, GM-22, GM-33, GM-35, W-4-S),
  - Zone S3: the monitoring zone immediately downgradient of RZ-3 (wells GM-32, GM-21, GM-63, and GM-64),
  - Zone S3 to GM-10: the monitoring zone between RZ-3 and GM-10 (wells GM-32, GM-21, GM-8, GM-6, GM-2, GM-16, GM-18, WSU-24, GM-47, GM-50, GM-51, GM-63, GM-64),
  - GM-10/GM-52: the monitoring zone downgradient of RZ-3 (wells GM-10 and GM-52), and
  - POC Shallow: monitoring at well GM-26.

- Lower Aquifer
  - Former Oil House Area, (AOI 7 Deep): the Former Oil House Area source area (wells GM-23, GM-29, and GM-30),
  - Zone GM-40/41/54: the monitoring zone encompassing GM-40, GM-41 and GM-54,
  - Zone GM-42: the monitoring zone encompassing GM-42,
  - Zone D1: the monitoring zone encompassing GM-19D,
  - Zone D2: the monitoring zone encompassing wells GM-1 and GM-3, and
  - POC Deep: monitoring at wells GM-11, GM-15 and GM-20D.

The following steps were conducted to assess the site-wide monitoring data for the purpose of determining the extent to which each remedial measure is contributing to achievement of the conditions outlined above for the upper and lower aquifers:

- As discussed above, the groundwater flow model was updated in 2008 to reflect current pumping conditions. The pumping conditions are summarized on Table E-1 in Appendix E. Table E-1 also provides the source reduction factors calculated from the groundwater flow model that are used to assess hypothetical concentrations at receptor wells that are attributable to the land-based units (i.e., closed North and South Settling Lagoons, and Landfills L1, L2 and L3). The RTLs, updated in CMP to reflect these current pumping conditions at and in the vicinity of the Site (ARCADIS, Inc. 2008), are presented on Table E-2 in Appendix E.

- Minimum, mean and maximum constituent concentrations in each remediation monitoring zone were calculated based on data collected during the 2010 monitoring period. One-half sample quantitation limits were used for non-detect results.

- Minimum, mean and maximum constituent concentrations were compared against the RTLs developed for each remediation monitoring zone.

4.1.3 Results

The results for groundwater quality data collected in all groundwater monitoring events in 2010 in each remediation monitoring zone wells are discussed in Section 2.2.3.1.3. A comparison of the minimum, mean and maximum concentrations for each parameter in each remediation monitoring zone to the RTLs is presented on Table 11. These results and relative change in these results in comparison with the 2008 monitoring period are discussed below and presented on Table 11. For reference, Table 11 also presents a comparison with the results from the 1999 baseline sampling event.

Note that changes to the groundwater monitoring program were implemented in 2010 as described in the Site-Wide Annual Groundwater Report for 2009 (ARCADIS, Inc 2010b). Changes included reducing the frequency of sampling for certain monitoring wells where other downgradient wells are available to monitor overall corrective measures performance. As result, no data are available from the 2010 monitoring event for the following remediation monitoring zones: Zone S2 (Shallow), GM-42 (Deep), Zone D2 (Deep). Monitoring wells which have a reduced sampling frequency are denoted in italics in the performance review presented below.

The comparison of the 2010 shallow zone (upper aquifer) monitoring data with the RTLs indicates the following:

AOI 7, Shallow (wells GM-23, GM-29 and *GM-30*):

- Consistent with 2009, concentrations of 1,1-DCE, cis-1,2,-DCE, PCE and TCE remained below the RTLs.
- As compared with 2009, the concentrations of vinyl chloride are lower but still remain above the RTL.

Zone S1 (well GM-28):

- Consistent with 2009, all concentrations remain below the RTLs.

Zone S1 to S2 (wells GM-28, *ME-6*):

- Consistent with 2009, all concentrations remain below the RTLs.

Zone S2 (wells *ME-6*, *ME-3*, *GM-31*):

- The monitoring frequency for wells ME-6, ME-3 and GM-31 located in Zone S2 was modified to once every five years. Therefore, no sampling data are available from 2010 for this remediation monitoring zone.

Zone S2 to S3 (wells W-4-S, *ME-6*, *ME-3*, *GM-31*, *GM-22*, *GM-33*, GM-35):

- Consistent with 2009, the concentrations of 1,1-DCE, cis-1,2,-DCE, PCE and vinyl chloride remain below RTLs.
- As compared with 2009, the maximum concentration of TCE is approximately the same. The minimum and mean are slightly less than the 2009 concentrations. The mean and maximum concentrations are still above the RTL.

Zone S3 (wells GM-32, GM-21, *GM-63*, and *GM-64*):

- Consistent with 2009, the concentrations of 1,1-DCE, cis-1,2-DCE, and vinyl chloride remain below the RTLs.

- The minimum, mean, and maximum concentrations of PCE and TCE are greater than the 2009 maximum detected concentrations. The mean and maximum concentrations are above the RTLs.

Zone S3 to GM-10 (wells GM-32, GM-21, GM-8, GM-6, GM-2, GM-16, *GM-18*, *WSU-24*, GM-47, GM-50, *GM-51*, GM-63, and *GM-64*):

- Wells GM-18, WSU-24, GM-51, and GM-64 are currently sampled every five years. Therefore no sampling data are available from the 2010 event for these wells.

- Consistent with 2009, the concentrations of 1,1-DCE, cis-1,2-DCE, and vinyl chloride remain below the RTLs.

- The concentrations of TCE and PCE are higher than those reported in 2009. The mean and maximum concentrations are above the RTLs.

GM-10/GM-52 (wells *GM-10* and GM-52):

- Well GM-10 is currently sampled every five years. Therefore no sampling data are available from the 2010 event for this well. Groundwater sampling data in 2010 are available for well GM-52 which was sampled twice in 2010.

- Consistent with 2009, the concentrations of 1,1-DCE, cis-1,2-DCE and vinyl chloride remain below RTLs.

- Consistent with 2009, the concentrations of PCE and TCE have remained relatively stable above the RTLs.

POC Shallow (well GM-26):

- Consistent with 2009, all concentrations remain below the RTLs.

The comparison of the 2010 deep zone monitoring data with the RTLs indicates the following:

AOI 7, Deep (wells GM-23, GM-29, and *GM-30*):

- Consistent with 2009, the concentrations of 1,1-DCE, cis-1,2-DCE and PCE remain below the RTLs.
- The maximum and mean concentrations of TCE and vinyl chloride have decreased but still remain above the RTL.

Zone GM-40/41/54 (wells *GM-40*, *GM-41*, GM-54):

- Wells GM-40 and GM-41 are currently sampled every five years. Therefore no sampling data are available from 2010 for these wells. Groundwater sampling data from January and September 2010 are available for well GM-54.
- Consistent with 2009, the concentrations of 1,1-DCE, cis-1,2-DCE, TCE, and vinyl chloride remained below the RTLs. The maximum concentration of PCE is the same as in 2009, but the minimum and mean are lower but all remain above the RTL.

GM-42 (well GM-42):

- Wells GM-42 is currently sampled every five years. Therefore no sampling data are available from 2010 for this remediation monitoring zone.

Zone D1 (well GM-19D):

- Consistent with 2009, concentrations of 1,1-DCE, cis-1,2-DCE, PCE, and TCE remain below the RTLs.
- As compared with 2009, the detected concentration of vinyl chloride has decreased, although it remains above the RTL.

Zone D2 (wells *GM-1* and *GM-3*):

- Wells GM-1 and GM-3 are currently sampled every five years. Therefore no sampling data are available from 2010 for this remediation monitoring zone.

POC Deep (wells GM-11, GM-15 and GM-20D):

- Consistent with 2009, concentrations of 1,1-DCE, cis-1,2-DCE, PCE and vinyl chloride remain below RTLs.

- In comparison with the 2009 data, the mean and maximum concentrations of TCE have slightly decreased, but remain above the RTL.

As indicated by the comparison of groundwater monitoring data with the RTLs presented on Table 11, concentrations at the upper aquifer POC well remain below RTLs. Concentrations in the monitoring zone immediately upgradient of the upper aquifer POC remain stable and above RTLs since 2006. Concentrations in the monitoring zones further upgradient of the upper aquifer POC, as well as concentrations at the lower aquifer POC wells remain above the RTLs for one constituent (TCE). Therefore, active corrective measures are still required to maintain the short-term objective in the upper aquifer, and to achieve the short-term corrective action objective in the lower aquifer.

Concentrations in the AOI-7 area remain above levels necessary to achieve the RTLs at the downgradient upper and lower aquifer POCs. However, concentrations immediately downgradient of RZ-1 remain below the RTLs, thus indicating that RZ-1 has been effective at remediating groundwater impacts from AOI-7 in the upper aquifer. Continued corrective measures downgradient of RZ-1 (i.e., at RZ-3 and RZ-4) will be continued to address residual impacts in the downgradient upper aquifer plume area. The CMP submitted in August 2008 also proposes additional measures along the plume to improve the performance of the overall remedy (ARCADIS Inc. 2008).

4.2 Monitoring of Land-Based Waste Management Units

4.2.1 Background and Objectives

One additional component of the site-wide groundwater monitoring program is monitoring of other specific units (i.e., the closed lagoons). Although the RFI, Supplemental RFI and CMP, determined that the wastes at these units do not contribute constituents to groundwater at levels that would have a significant effect on current and reasonably expected future groundwater uses, the monitoring program includes monitoring wells that are used to confirm these findings. In addition, the Site-Wide Groundwater Monitoring Plan was developed to meet the objectives of Ohio EPA's post-closure monitoring for the closed North and South Settling Lagoons.

4.2.2 Methodology

As indicated above, this site-wide monitoring program was developed to meet the objectives of RCRA corrective action and the post-closure groundwater monitoring requirements for the closed lagoons. The site-wide program monitors potentially significant contributions of hazardous waste constituents to existing groundwater quality from the closed lagoons. To determine if the closed lagoons may be significant contributors of hazardous waste constituents to existing groundwater concentrations, monitoring data collected from the designated post-closure monitoring wells located downgradient of each of the closed lagoons are evaluated for temporal trends. The approach proposed in the Site-Wide Groundwater Monitoring Plan for this assessment includes, as an initial approach, the application of straight line regression to determine if the data suggests a strong positive correlation.

In addition, in accordance with the Site-Wide Groundwater Monitoring Plan, the monitoring wells located immediately downgradient of the in-place waste management units are evaluated to determine whether these units are significantly affecting groundwater quality. Specifically, the potential health significance of constituents detected in monitoring wells immediately downgradient of these units to current and reasonably expected groundwater uses on-site and off-site are evaluated using the groundwater assessment methods developed in the Supplemental RFI Baseline Risk Assessment (ENVIRON 2000b) and CMP (ARCADIS, Inc. 2008). If this evaluation identifies detected concentrations that indicate one or more of these units may be having a potentially significant impact on downgradient groundwater quality, then a review of groundwater quality from monitoring wells upgradient and downgradient of the particular unit would be conducted to identify whether the unit is affecting groundwater quality. The monitoring wells identified in the Site-Wide Groundwater Monitoring Plan for monitoring each of the waste management units are:

- Closed North Settling Lagoon: HR-4 (upgradient), W-2-N, W-3-N, W-4-N.
- Closed South Settling Lagoon: HR-17 (upgradient), W-2-S, W-3-S, W-4-S.
- Landfill L1: GM-2, GM-6, 4S.
- Landfill L2: W-4-N, HR-2, HR-3.
- Landfill L3: W-4-N, HR-2, HR-4.

Consistent with the groundwater exposure evaluation conducted for the Supplemental Baseline Risk Assessment (ENVIRON 2000b) and CMP (ARCADIS, Inc. 2008), groundwater concentrations reported for each set of downgradient monitoring wells are assumed to represent source concentrations associated with each unit. These source concentrations are combined with source reduction factors developed for the base case exposure scenario (i.e., current groundwater use conditions without corrective measures pumping – "Scenario 1a") to estimate exposure concentrations at the points of groundwater use (e.g., downgradient municipal well fields) or potential receptor exposure (e.g., Great Miami River). For the current evaluation, the maximum concentrations detected during the 2009 sampling events in each set of designated monitoring wells are used as the source concentrations and combined with the source reduction factors presented on Table E-1 (as described in Section 4.1.2) in order to estimated exposure concentrations. The estimated exposure concentrations are then compared with MCLs or risk-based equivalent drinking water levels (EDWLs) ("drinking water criteria") in order assess the potential health significance associated with receptor exposure to these concentrations.

4.2.3 Results

As proposed in the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002), post-closure monitoring data collected from those wells assigned to the closed North and South Settling Lagoons were reviewed for temporal trends. Data considered in the evaluation only included results from the September 2010 monitoring event. Currently, the data set collected since the lagoons were closed includes eight data points for any monitoring well/constituent pair. The data plots for key constituents are provided on Figure E-1 for the closed North Settling Lagoon (NSL) and Figure E-2 for the closed South Settling Lagoon (SSL).

As presented on Figure E-1, the linear regression analysis for the monitoring wells used to assess conditions at the NSL suggest increasing concentrations of TCE, cis-1,2-DCE, trans-1,2-DCE, and 1,1-DCA in downgradient well W-4-N and 1,1-DCA in well HR-4. As provided for in the Site Wide Groundwater Monitoring Plan (ARCADIS Inc. 2002), further assessment of these trends was performed using the Mann-Kendall trend test. The results of the trend tests are provided on Table E-3. The results of this test indicate a statistically significant increasing trend for 1,1-DCA concentration in upgradient well HR-4. The increasing trend for cis-1,2-DCE in downgradient well W-4-N was also found to be statistically significant (see Table E-3). The results indicate that the trends for TCE, trans-1,2-DCE, and 1,1-DCA concentrations in W-4-N are not statistically significant. Therefore, these data and concentration trends do not indicate

any significant increases in groundwater concentrations of TCE, trans-1,2-DCE, or 1,1-DCA that would be attributable to the NSL. The increasing concentrations of cis-1,2-DCE in W-4-N may be attributed to attenuation of PCE and TCE from upgradient source(s) The concentrations at W-4-N downgradient of the NSL are most likely due to upgradient groundwater impacts rather than being attributable to the NSL.

As presented on Figure E-2, the linear regression analysis for the monitoring wells used to assess conditions at the SSL suggest increasing concentrations of 1,1-DCA, cis-1,2-DCE, trans-1,2-DCE, PCE and TCE in downgradient monitoring well W-4-S, and increasing concentrations of 1,1-DCA, PCE, and TCE in upgradient monitoring well HR-17. As provided for in the Site Wide Groundwater Monitoring Plan (ARCADIS 2002), further assessment of these trends was performed using the Mann-Kendall trend test. The results of the trend tests are provided on Table E-3. The results indicate that the trends for 1,1-DCA, cis-1,2-DCE, trans-1,2-DCE, PCE, and TCE concentrations in W-4-S and PCE in well HR-17 are statistically significant (see Table E-3). However, the detected concentrations for TCE and PCE, and the observed concentration increases identified in downgradient monitoring well W-4-S appear to correlate with the concentrations and increasing trends also observed in upgradient well HR-17 (although the increasing trend for TCE at HR-17 suggested by the linear regression was not identified as being statistically significant). The correlations between concentrations in HR-17 and W-4-S for TCE and PCE were tested statistically using Pearson correlation coefficients and were found to be correlated at the 5% significance level. The low concentrations for trans-1,2-DCE, and concentrations for 1,1-DCA are also similar at well W-4-S and HR-17. Further, the presence of 1,1-DCA, cis-1,2-DCE and trans-1,2-DCE is expected from the natural attenuation processes. Therefore, concentrations downgradient of the SSL are most likely due to upgradient groundwater impacts rather than being attributable to the SSL.

Using the methodology developed in the Supplemental RFI baseline risk assessment (ENVIRON 2000b) and CMP (ARCADIS Inc. 2008) for assessing potential impacts to groundwater receptors from releases at the Moraine Facilities, MLC determined that the data from the wells downgradient of the closed NSL and SSL do not indicate that these units are significantly affecting groundwater quality. The potential significance of concentrations detected during the 2009 sampling events in each set of downgradient monitoring wells for the lagoons and landfills were assessed. Based on the maximum concentrations detected during the 2010 sampling events at each of these units, exposure concentrations at water supply wells representing current pumping conditions were estimated. The estimated combined groundwater concentrations at each of the receptor locations (potential points of exposure – West Carrollton Well Field and the

Great Miami River [Table E-1]) are presented on Table 12 in comparison with drinking water criteria. As shown on Table 12, the maximum concentrations detected downgradient of each land-based waste disposal unit (Landfills L1, L2 and L3; North and South Settling Lagoons) do not contribute significantly to concentrations of these potential points of exposure.

5. Conclusions and Recommendations

This site-wide report presents the groundwater monitoring activities completed in 2010 at the MLC Moraine Facilities located in Moraine, Ohio. This sampling was conducted to meet the five objectives presented in Section 1.2. Compliance with these objectives is presented for the waste management units, corrective measures, and on-going site-wide groundwater monitoring in the following sections.

5.1 Land-Based Waste Management Units

As proposed in the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002), monitoring data collected immediately downgradient of the closed North and South Settling Lagoons, and Landfills L1, L2 and L3 were evaluated to determine if these units may be contributing constituents to groundwater at levels that would have a significant effect on current and reasonably expected future groundwater uses. Using the methodology developed in the Supplemental RFI baseline risk assessment (ENVIRON 2000b) and CMP (ARCADIS, Inc. 2008) for assessing potential impacts to groundwater receptors from releases at the Moraine facilities, the potential significance of observed groundwater concentrations downgradient of these units was evaluated.

This evaluation determined that data from the wells downgradient of the in-place waste management units indicate that these units are not significantly affecting groundwater quality. Based on the results from the 2010 monitoring, no changes in the monitoring program for the waste management units are proposed.

5.2 Corrective Measures Performance

MLC's approach for achieving its corrective action goals for the former Moraine Facilities is based on a combination of corrective measures (in-situ treatment and hydraulic control) designed to reduce existing plume concentrations thereby achieving plume reduction and migration control.

5.2.1 In-Situ Treatment

Groundwater quality monitoring at and downgradient of the reductive dechlorination treatment zones indicates that this in-situ treatment program has been effective at reducing VOC concentrations in groundwater. As observed during the 2010 monitoring, the upper aquifer conditions in the areas downgradient of the in-situ reactive zones have been converted to more reducing conditions through the

introduction of a carbon source, as evidenced by the changes in field and bioattenuation indicator parameters. Further, the VOC results indicate that the target compounds (PCE and TCE) have been effectively reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to ethene and ethane.

In general, the process of enhanced reductive dechlorination has been successful in achieving a reduction of VOC concentrations. Based on the data collected in 2010 as part of the site-wide groundwater monitoring program and the effectiveness of the remedy in place MLC will address current concentrations by modifications of the RZs as presented in the CMP and CMP Addendum (ARCADIS Inc., 2008 and 2010a). The current RZs (RZ-2 and source areas) will continue to be implemented and evaluated in 2011 as in 2010 until modifications are implemented for the final site-wide remedy. As part of the design, MLC submitted the draft Pre-Design Investigation Work Plan in November 2010 to the U.S. EPA to begin this process.

5.2.2 Hydraulic Control

Groundwater elevation monitoring indicates that the capture zone corrective measures continue to be effective at maintaining hydraulic control in both the upper and lower aquifers in the southern area of the former Delphi Thermal Moraine. Additionally, the observed flow conditions are consistent with the conditions predicted by the capture zone modeling completed in developing the corrective measures pumping plan, which confirms the continued utility of the groundwater flow model as a predictive tool.

Based on the effective performance of the pumping program during the 2010 monitoring and exceedances of RTLs at the Former Oil House Area AOI 7, in shallow aquifer Zones S2 to S3, S3, S3 to GM-10/-52, GM-10/-52, deep aquifer Zones GM-40/-41/-54, D1, and POC monitoring points in the deep aquifer (GM-11, GM-15, GM-20D), MLC will address current concentrations in the lower aquifer by modifications of the pumping program (pump & treat and DN-13 capture) as presented in the CMP and CMP Addendum (ARCADIS Inc., 2008 and 2010a). The current pumping program will continue to be implemented and evaluated in 2011 as in 2010 until modifications are implemented for the final site-wide remedy.

MLC's ongoing groundwater monitoring program includes the assessment of changes in site-specific VOCs in both the upper and lower aquifers at locations upgradient of the former Moraine Facilities, as well as on-site and downgradient of the former facilities. Data collected from upper and lower aquifer wells located upgradient of the former facilities confirms that upgradient sources of VOCs, not related to former GM

operations, persist in the local area. Notwithstanding these upgradient contributions of VOCs to on-site groundwater, the monitoring data indicate a site-wide decrease in VOC concentrations since the baseline sampling event conducted in 1999, other than areas to be addressed as proposed in the CMP. In addition, VOC concentrations at the current off-site downgradient upper aquifer POC well GM-26 remained below drinking water criteria. Concentrations of TCE remained above the drinking water criterion in downgradient lower aquifer wells GM-11, GM-15 and GM-20D, however, groundwater downgradient of these wells is contained by the lower aquifer capture zone well DN-13.

The overall decreasing concentrations in the wells downgradient of the Site since the corrective measures were first implemented are likely attributable to the combined effects of corrective measures pumping at TW-2 which began in January 1996, pumping at DN-13, and on-going enhanced reductive dechlorination of the VOCs. However, concentrations in the monitoring zones immediately upgradient of the upper aquifer POC (GM-26), as well as concentrations at the lower aquifer POC wells remain above the RTLs and MCLs. Therefore, active corrective measures are still required to achieve the corrective action objectives presented in the CMP.

Based on the evaluation of the site-wide groundwater quality, both the in-situ treatment and hydraulic control components of the corrective action program will be enhanced and continued.

5.3 Reassessment of Site-Wide Groundwater Monitoring Program

In accordance with the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002), groundwater monitoring was conducted in 2010 to evaluate groundwater quality upgradient and downgradient of the closed lagoons and landfills, performance of the in-situ reactive zones, and performance of the capture zones. Based on the data collected during the 2010 monitoring period, MLC believes that the monitoring program has provided sufficient data for a comprehensive evaluation of the current corrective action objectives. To reassess the monitoring program in support of the proposed final corrective measures, MLC recommends the following:

- The revised site-wide groundwater monitoring program for 2010 was presented in Table 21 of the Site-Wide Groundwater Monitoring Report for 2009 (ARCADIS, Inc. 2010b). This list of wells was based on an evaluation of data trends observed at each monitor well since 1999. This monitoring program will be followed in 2011

to include wells HR-7 and GM-9 at the request of the U.S. EPA (BOW Environmental Solutions, Inc. 2010).

- MLC will present future revisions to the site-wide groundwater monitoring program in support of the final site-wide corrective measures when the Statement of Basis is finalized.

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Table 1. Site-Wide Groundwater Monitoring and Remedial System Monitoring Events in 2010, Motors Liquidation Company, Moraine, Ohio.

September 2010 Site-Wide Groundwater and Surface Water Elevations

Groundwater and surface water elevations were measured on September 20 through 21, 2010.

September 2010 Site-Wide Annual Groundwater Sampling

Site-specific list of VOCs(1) and field parameters(2) were analyzed during September 2010 from the following upper aquifer monitoring wells. Biogeochemical parameters(3) were analyzed at select wells identified below (GM-32 sampled for field parameters and total organic carbon, only):

W-2-N	W-2-S	GM-16	GM-35	GM-60(3)
W-3-N	W-3-S	GM-19S(3)	GM-43	GM-65S
W-4-N	W-4-S	GM-21(3)	GM-47	GM-75S(3)
HR-2	TW-2	GM-23(3)	GM-50	GM-78
HR-4	GM-2	GM-26	GM-52	GM-79
HR-9	GM-6	GM-28(3)	GM-55	GM-80
HR-17	GM-8(3)	GM-29(3)	GM-59(3)	
HR-7				

Site-specific list of VOCs(1) were analyzed during September 2010 from the following list of lower aquifer monitoring wells:

HR-12	GM-11	GM-20D	GM-84	GM-9
HR-15	GM-15	GM-54	GM-75D	
DN-13	GM-19D	GM-68D	GM-83D	

DN-13 Monthly Groundwater Sampling

Appendix IX VOCs and cis-1,2-dichloroethene were analyzed during monthly sampling events from DN-13.

Air Stripper Tower Influent and Effluent Monthly Groundwater Sampling

Benzene, chloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes were analyzed during the influent sampling events from the air stripper tower by EPA Method 8260B. The stripping tower effluent sample was analyzed for oil and grease and the following list of VOCs: benzene, chloroethane, 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes. The effluent sample was analyzed by EPA Methods 8260B and 624 (drinking water standard).

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Table 1. Site-Wide Groundwater Monitoring and Remedial System Monitoring Events in 2010, Motors Liquidation Company, Moraine, Ohio.

Supplemental Groundwater Sampling

The following wells were sampled on January 27-28, 2010 for site-specific list of VOCs(1): GM-47, GM-50, GM-52, GM-54, GM-63, GM-65S, GM-65D, GM-77D, and GM-84.

The following wells were sampled on April 7-9, 2010 for site-specific list of VOCs(1): GM-19S, GM-44, GM-45, GM-59, GM-60, GM-62, GM-74S, GM-74D, GM-75D, GM-80, and GM-81.

The following wells were sampled on October 21, 2010 for site-specific list of VOCs(1): GM-25 and GM-77S.

Analytical Methods

The following table presents the analytical methods used to analyze each parameter sampled during site-wide annual groundwater monitoring, RZ performance monitoring, DN-13 monthly groundwater monitoring, and the air stripper tower influent and effluent monthly groundwater sampling.

Parameter	Analytical Method
Appendix IX VOCs + cis-1,2-dichloroethene	EPA Method 8260B
Site-specific list of VOCs	EPA Method 8260B/EPA Method 624
Manganese, total and dissolved	EPA Method 6010B
Iron, total and dissolved	EPA Method 6010B
Sulfate	SM 375.4
Sulfide	SM 376.1
Total Organic Carbon	SM 415.1
Chlorides	SM 325.2
Ethane, Ethene, Methane	Method AM18G

1 - Site-specific list of VOCs includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 - Field parameters include: pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature.

3 - Biogeochemical parameters include: manganese (total and dissolved), iron (total and dissolved), sulfate, sulfide, total organic carbon, chlorides, ethane, ethene, and methane.

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	January		February		March		April	
		No Injections[1]		Injection Event #116[2]		Injection Event #117[3]		Injection Event #118[4]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 1									
	RZ-1C	---	NA	800	36.40	800	25.81	800	40.00
	RZ-1D	---	NA	800	36.40	800	26.67	800	42.10
	RZ-1E	---	NA	800	42.10	800	32.00	800	38.10
	RZ-1F	---	NA	800	42.10	800	42.10	800	44.20
	RZ-1G	---	NA	800	44.40	800	44.44	800	40.00
	RZ-1H	---	NA	800	40.00	800	25.00	800	25.00
	RZ-1I	---	NA	800	40.00	800	61.54	800	40.00
	RZ-1J	---	NA	800	34.80	800	50.00	800	40.00
	RZ-1K	---	NA	800	38.10	800	57.14	800	30.00
	RZ-1L	---	NA	800	42.10	800	44.44	800	44.20
	RZ-1M	---	NA	800	28.60	800	25.00	800	36.40
	RZ-1N	---	NA	800	38.10	800	40.00	800	40.00
	RZ-1O	---	NA	800	26.70	800	17.39	800	40.00
	RZ-1P	---	NA	800	38.10	800	50.00	800	42.10
	RZ-1Q	---	NA	800	34.80	800	32.00	800	32.00
	RZ-1R	---	NA	800	40.00	800	42.10	800	44.20
	RZ-1S	---	NA	800	22.90	800	34.78	800	42.10
	RZ-1T	---	NA	800	44.40	800	47.06	800	42.10
	RZ-1U	---	NA	800	42.10	800	57.14	800	40.00

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	January		February		March		April	
		No Injections[1]		Injection Event #116[2]		Injection Event #117[3]		Injection Event #118[4]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 3									
	RZ-3A	---	NA	1600	42.10	1600	43.27	1600	32.00
	RZ-3B	---	NA	1600	39.05	1600	42.22	1600	26.67
	RZ-3C	---	NA	1600	41.05	1600	42.10	1600	40.00
	RZ-3D	---	NA	1600	27.50	1600	28.15	1600	32.00
	RZ-3E	---	NA	1600	34.85	1600	32.05	1600	32.65
	RZ-3F	---	NA	1600	40.10	1600	43.27	1600	39.00
	RZ-3G	---	NA	1600	41.05	1600	41.05	1600	40.00
	RZ-3H	---	NA	1600	38.45	1600	40.10	1600	20.51
	RZ-3I	---	NA	1600	35.05	1600	41.05	1600	39.00
	RZ-3J	---	NA	1600	42.60	1600	43.27	1600	41.02
	RZ-3K	---	NA	1600	20.20	1600	38.18	1600	29.09
	RZ-3L	---	NA	1600	40.40	1600	43.27	1600	37.21
	RZ-3M	---	NA	1600	39.05	1600	43.27	1600	41.02
	RZ-3N	---	NA	1600	42.10	1600	41.05	1600	40.00
	RZ-3O	---	NA	1600	40.10	1600	42.22	1600	43.24
	RZ-3P	---	NA	1600	43.25	1600	41.05	1600	41.02
	RZ-3Q	---	NA	1600	41.08	1600	41.05	1600	43.24
	RZ-3R	---	NA	1600	44.40	1600	43.27	1600	44.44
	RZ-3S	---	NA	1600	43.25	1600	41.05	1600	41.02
	RZ-3T	---	NA	1600	41.05	1600	41.05	1600	41.02
	RZ-3U	---	NA	1600	44.40	1600	43.27	1600	43.24
	RZ-3V	---	NA	1600	41.05	1600	41.05	1600	40.00
	RZ-3W	---	NA	1600	41.05	1600	43.27	1600	41.02
	RZ-3X	---	NA	1600	39.05	1600	37.23	1600	39.02
	RZ-3Y	---	NA	1600	42.20	1600	41.05	1600	43.24
	RZ-3Z	---	NA	1600	41.05	1600	40.00	1600	40.00
	RZ-3AA	---	NA	1600	43.25	1600	43.27	1600	39.00
	RZ-3BB	---	NA	1600	42.20	1600	42.10	1600	41.02

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	January		February		March		April	
		No Injections[1]		Injection Event #116[2]		Injection Event #117[3]		Injection Event #118[4]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 3									
	RZ-3CC	---	NA	1600	43.25	1600	44.44	1600	43.24
	RZ-3DD	---	NA	1600	43.25	1600	42.22	1600	41.02
	RZ-3GG	---	NA	1600	43.25	1600	42.22	1600	39.02
	RZ-3HH	---	NA	1600	42.20	1600	43.27	1600	39.02
	RZ-3II	---	NA	1600	42.20	1600	42.10	1600	41.02
	RZ-3JJ	---	NA	1600	42.10	1600	36.00	1600	29.09
	RZ-3KK	---	NA	1600	42.20	1600	43.27	1600	41.02
	RZ-3RR	---	NA	1600	41.05	1600	36.66	1600	37.21
	RZ-3SS	---	NA	1600	27.45	1600	24.76	1600	19.75
	RZ-3TT	---	NA	1600	25.00	1600	20.00	1600	16.00
	RZ-3UU	---	NA	1600	41.05	1600	41.05	1600	39.00
	RZ-3VV	---	NA	1600	29.60	1600	23.55	1600	22.86
Reactive Zone 4									
	RZ-4A	---	NA	3000	37.63	3000	42.48	3000	33.71
	RZ-4B	---	NA	3000	35.63	3000	49.31	3000	30.61
	RZ-4C	---	NA	3000	32.10	3000	43.76	3000	31.91
	RZ-4D	---	NA	3000	53.43	3000	52.49	3000	42.86
	RZ-4E	---	NA	3000	44.28	3000	60.06	3000	40.00
	RZ-4F	---	NA	3000	42.18	3000	42.16	3000	29.41
	RZ-4G	---	NA	3000	41.72	3000	55.49	3000	42.25
	RZ-4H	---	NA	3000	41.63	3000	62.05	3000	41.10
Site-Wide Total		NA	NA	103,200	NA	103,200	NA	103,200	NA

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	May		June		July		August	
		Injection Event #119[5]		Injection Event #120[6]		Injection Event #121[7]		Injection Event #122[8]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 1									
	RZ-1C	800	30.77	800	22.20	800	21.62	800	22.86
	RZ-1D	800	32.00	800	23.50	800	23.53	800	28.57
	RZ-1E	800	34.78	800	26.70	800	23.53	800	22.86
	RZ-1F	800	40.00	800	44.40	800	50.00	800	50.00
	RZ-1G	800	33.33	800	42.10	800	38.10	800	42.11
	RZ-1H	800	23.53	800	16.70	800	11.76	800	12.50
	RZ-1I	800	42.10	800	42.10	800	47.06	800	44.44
	RZ-1J	800	40.00	800	42.10	800	34.78	800	29.63
	RZ-1K	800	40.00	800	22.90	800	40.00	800	33.33
	RZ-1L	800	42.10	800	42.10	800	42.10	800	38.09
	RZ-1M	800	28.57	800	21.60	800	33.33	800	13.11
	RZ-1N	800	40.00	800	25.80	800	33.33	800	18.18
	RZ-1O	800	32.00	800	17.00	800	17.39	800	11.76
	RZ-1P	800	40.00	800	32.00	800	50.00	800	44.44
	RZ-1Q	800	42.10	800	25.00	800	11.59	800	15.69
	RZ-1R	800	40.00	800	44.40	800	44.44	800	36.36
	RZ-1S	800	40.00	800	44.40	800	23.53	800	42.11
	RZ-1T	800	42.10	800	40.00	800	33.33	800	47.06
	RZ-1U	800	42.10	800	44.40	800	32.00	800	42.11

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	May		June		July		August	
		Injection Event #119[5]		Injection Event #120[6]		Injection Event #121[7]		Injection Event #122[8]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 3									
	RZ-3A	1600	40.00	1600	41.05	1600	40.00	1600	40.00
	RZ-3B	1600	30.72	1600	42.20	1600	40.10	1600	37.23
	RZ-3C	1600	41.05	1600	42.20	1600	41.05	1600	39.24
	RZ-3D	1600	25.81	1600	26.67	1600	28.12	1600	25.46
	RZ-3E	1600	28.50	1600	30.68	1600	37.05	1600	28.57
	RZ-3F	1600	38.18	1600	40.00	1600	41.05	1600	39.05
	RZ-3G	1600	37.39	1600	43.25	1600	42.22	1600	42.11
	RZ-3H	1600	29.34	1600	34.93	1600	41.05	1600	32.99
	RZ-3I	1600	34.78	1600	42.20	1600	41.05	1600	40.00
	RZ-3J	1600	37.23	1600	41.05	1600	42.22	1600	32.00
	RZ-3K	1600	26.67	1600	32.65	1600	36.00	1600	28.79
	RZ-3L	1600	29.34	1600	40.00	1600	43.27	1600	40.00
	RZ-3M	1600	41.05	1600	41.05	1600	40.00	1600	40.00
	RZ-3N	1600	40.00	1600	41.05	1600	42.22	1600	44.44
	RZ-3O	1600	38.18	1600	41.05	1600	41.05	1600	40.00
	RZ-3P	1600	38.18	1600	40.10	1600	38.18	1600	41.06
	RZ-3Q	1600	41.05	1600	42.20	1600	41.05	1600	42.11
	RZ-3R	1600	43.27	1600	43.25	1600	42.22	1600	41.06
	RZ-3S	1600	41.05	1600	39.05	1600	34.78	1600	41.06
	RZ-3T	1600	42.22	1600	41.05	1600	40.40	1600	41.06
	RZ-3U	1600	25.00	1600	42.10	1600	34.82	1600	44.44
	RZ-3V	1600	41.05	1600	42.20	1600	42.22	1600	41.06
	RZ-3W	1600	42.22	1600	43.25	1600	42.10	1600	40.00
	RZ-3X	1600	41.05	1600	39.05	1600	41.05	1600	41.06
	RZ-3Y	1600	32.50	1600	41.05	1600	41.05	1600	40.00
	RZ-3Z	1600	41.05	1600	42.10	1600	42.10	1600	42.11
	RZ-3AA	1600	38.18	1600	43.25	1600	39.05	1600	41.06
	RZ-3BB	1600	41.05	1600	41.05	1600	48.88	1600	44.44

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	May		June		July		August	
		Injection Event #119[5]		Injection Event #120[6]		Injection Event #121[7]		Injection Event #122[8]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 3									
	RZ-3CC	1600	43.27	1600	43.25	1600	47.06	1600	41.06
	RZ-3DD	1600	43.27	1600	42.10	1600	43.53	1600	42.11
	RZ-3GG	1600	36.66	1600	36.45	1600	33.39	1600	35.38
	RZ-3HH	1600	40.00	1600	48.55	1600	43.27	1600	41.06
	RZ-3II	1600	42.10	1600	47.20	1600	43.27	1600	41.06
	RZ-3JJ	1600	40.00	1600	13.10	1600	17.03	1600	30.29
	RZ-3KK	1600	42.22	1600	45.75	1600	49.62	1600	42.11
	RZ-3RR	1600	41.05	1600	31.55	1600	26.81	1600	36.00
	RZ-3SS	1600	23.23	1600	15.90	1600	12.92	1600	21.77
	RZ-3TT	1600	21.29	1600	17.25	1600	13.56	1600	18.00
	RZ-3UU	1600	41.05	1600	40.10	1600	34.78	1600	39.05
	RZ-3VV	1600	27.59	1600	17.25	1600	17.40	1600	23.93
Reactive Zone 4									
	RZ-4A	3000	40.94	3000	43.38	3000	49.97	3000	43.08
	RZ-4B	3000	31.94	3000	45.23	3000	41.11	3000	48.56
	RZ-4C	3000	30.56	3000	29.20	3000	31.60	3000	32.32
	RZ-4D	3000	49.31	3000	42.93	3000	51.20	3000	40.23
	RZ-4E	3000	49.84	3000	38.33	3000	44.24	3000	44.22
	RZ-4F	3000	26.62	3000	36.18	3000	32.26	3000	21.58
	RZ-4G	3000	45.42	3000	41.03	3000	39.86	3000	55.53
	RZ-4H	3000	40.72	3000	50.70	3000	44.89	3000	48.66
Site-Wide Total		103,200	NA	103,200	NA	103,200	NA	103,200	NA

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	September		October		November		December	
		Injection Event #123[9]		Injection Event #124[10]		Injection Event #125[11]		Injection Event #126[12]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 1									
	RZ-1C	800	36.40	800	40.00	800	28.60	800	42.10
	RZ-1D	800	38.10	800	40.00	800	38.10	800	42.10
	RZ-1E	800	38.10	800	40.00	800	42.10	800	44.40
	RZ-1F	800	47.10	800	42.10	800	47.10	800	44.40
	RZ-1G	800	42.10	800	44.40	800	47.10	800	38.10
	RZ-1H	800	25.80	800	40.00	800	30.80	800	22.80
	RZ-1I	800	50.00	800	44.40	800	40.00	800	35.00
	RZ-1J	800	44.40	800	40.00	800	33.30	800	40.00
	RZ-1K	800	47.10	800	42.10	800	33.30	800	42.10
	RZ-1L	800	57.10	800	42.10	800	47.10	800	40.00
	RZ-1M	800	28.60	800	40.00	800	25.30	800	28.00
	RZ-1N	800	32.00	800	40.00	800	44.40	800	40.00
	RZ-1O	800	22.20	800	42.10	800	14.80	800	40.00
	RZ-1P	800	42.10	800	42.10	800	47.10	800	40.00
	RZ-1Q	800	34.80	800	40.00	800	50.00	800	28.00
	RZ-1R	800	50.00	800	44.40	800	25.00	800	42.10
	RZ-1S	800	38.10	800	40.00	800	40.00	800	42.10
	RZ-1T	800	57.10	800	44.40	800	40.00	800	40.00
	RZ-1U	800	42.10	800	40.00	800	42.10	800	44.20

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	September		October		November		December	
		Injection Event #123[9]		Injection Event #124[10]		Injection Event #125[11]		Injection Event #126[12]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 3									
	RZ-3A	1600	37.60	1600	40.00	1600	42.10	1600	40.00
	RZ-3B	1600	43.25	1600	42.10	1600	41.10	1600	41.10
	RZ-3C	1600	40.00	1600	35.70	1600	36.60	1600	37.40
	RZ-3D	1600	27.00	1600	28.50	1600	25.60	1600	24.00
	RZ-3E	1600	26.00	1600	35.05	1600	28.00	1600	31.40
	RZ-3F	1600	38.20	1600	35.50	1600	40.00	1600	32.20
	RZ-3G	1600	37.50	1600	35.00	1600	41.10	1600	43.15
	RZ-3H	1600	32.00	1600	34.00	1600	36.00	1600	32.45
	RZ-3I	1600	38.20	1600	36.00	1600	33.70	1600	39.05
	RZ-3J	1600	40.00	1600	40.00	1600	36.40	1600	40.00
	RZ-3K	1600	27.00	1600	31.00	1600	29.00	1600	28.15
	RZ-3L	1600	41.05	1600	42.10	1600	28.00	1600	41.05
	RZ-3M	1600	41.05	1600	43.25	1600	40.00	1600	40.00
	RZ-3N	1600	41.05	1600	40.00	1600	41.10	1600	41.05
	RZ-3O	1600	34.20	1600	40.00	1600	40.00	1600	36.65
	RZ-3P	1600	37.50	1600	41.05	1600	37.50	1600	42.10
	RZ-3Q	1600	41.05	1600	43.15	1600	40.00	1600	42.10
	RZ-3R	1600	41.05	1600	43.15	1600	40.00	1600	41.05
	RZ-3S	1600	30.05	1600	40.30	1600	40.00	1600	36.40
	RZ-3T	1600	33.50	1600	40.00	1600	40.10	1600	39.05
	RZ-3U	1600	43.25	1600	37.50	1600	41.10	1600	34.80
	RZ-3V	1600	42.10	1600	41.05	1600	44.20	1600	40.00
	RZ-3W	1600	41.05	1600	40.00	1600	40.00	1600	36.45
	RZ-3X	1600	40.00	1600	41.05	1600	39.10	1600	32.65
	RZ-3Y	1600	43.25	1600	36.05	1600	41.10	1600	36.65
	RZ-3Z	1600	42.65	1600	33.20	1600	39.10	1600	37.40
	RZ-3AA	1600	39.05	1600	42.10	1600	39.30	1600	44.20
	RZ-3BB	1600	48.85	1600	41.05	1600	40.00	1600	41.05

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Location	Injection Well	September		October		November		December	
		Injection Event #123[9]		Injection Event #124[10]		Injection Event #125[11]		Injection Event #126[12]	
		Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)	Volume (gal)	Flow Rate (gpm)
Reactive Zone 3									
	RZ-3CC	1600	45.00	1600	41.05	1600	42.10	1600	38.45
	RZ-3DD	1600	44.40	1600	32.65	1600	42.10	1600	40.00
	RZ-3GG	1600	32.80	1600	41.05	1600	25.20	1600	41.05
	RZ-3HH	1600	42.10	1600	42.20	1600	35.10	1600	40.00
	RZ-3II	1600	50.00	1600	42.10	1600	42.10	1600	41.05
	RZ-3JJ	1600	25.20	1600	41.05	1600	30.80	1600	38.20
	RZ-3KK	1600	41.65	1600	44.40	1600	41.00	1600	38.20
	RZ-3RR	1600	31.55	1600	43.25	1600	29.30	1600	34.20
	RZ-3SS	1600	17.50	1600	29.50	1600	12.50	1600	25.10
	RZ-3TT	1600	18.00	1600	24.50	1600	20.60	1600	24.10
	RZ-3UU	1600	33.00	1600	43.25	1600	38.50	1600	40.00
	RZ-3VV	1600	19.65	1600	34.15	1600	23.10	1600	31.40
Reactive Zone 4									
	RZ-4A	3000	51.78	3000	34.13	3000	40.20	3000	40.40
	RZ-4B	3000	57.33	3000	36.00	3000	32.50	3000	36.50
	RZ-4C	3000	45.90	3000	32.25	3000	32.80	3000	39.90
	RZ-4D	3000	48.33	3000	49.78	3000	39.10	3000	42.10
	RZ-4E	3000	54.28	3000	40.05	3000	41.10	3000	40.00
	RZ-4F	3000	39.03	3000	38.63	3000	30.00	3000	39.80
	RZ-4G	3000	52.15	3000	48.48	3000	43.00	3000	53.20
	RZ-4H	3000	52.60	3000	56.05	3000	39.40	3000	54.40
Site-Wide Total		103,200	NA	103,200	NA	103,200	NA	103,200	NA

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Table 2. Carbon Source Solution Introduction Volumes for 2010, Motors Liquidation Company, Moraine, Ohio.

Notes:
Carbon source introduced into each well is a 50:1 solution (potable water to molasses)
gpm - gallons per minute.
gal - gallons.
NA - Not Applicable.
--- Introduction well was not selected for introduction during this event.
(1) No injection event scheduled.
(2) Injection Event #116 was completed February 8th, 10th through 12th, 17th through 19th, 22nd through 26th, and March 1st through 3rd, 2010.
(3) Injection Event #117 was completed March 3rd through 5th, 8th through 12th and 16th through 19th, 2010.
(4) Injection Event #118 was completed April 5th through 9th, 12th through 16th, and 20th through 22nd, 2010.
(5) Injection Event #119 was completed May 3rd through 7th, 10th through 13, 17th through 19th, and 24th through 27th, 2010.
(6) Injection Event #120 was completed June 4th, 7th through 11th, 14th through 18th, and 21st through 25th, 2010.
(7) Injection Event #121 was completed July 12th through 15th, 19th through 23rd, and 26th through 29th, 2010.
(8) Injection Event #122 was completed August 2nd through 6th, 9th through 13th, and 16th through 19th, 2010.
(9) Injection Event #123 was completed September 1st through 3rd, 7th through 10th, 13th through 17th, 21st through 24th, and 27th, 2010.
(10) Injection Event #124 was completed September 30, October 1, 4th through 8th, 11th through 15th, and 25th through 28th, 2010.
(11) Injection Event #125 was completed November 1st through 5th, 8th through 12th, 15th through 19th, 22nd through 24th, 29th, and December 1st, 2010.
(12) Injection Event #126 was completed December 2nd through 3rd, 6th through 10th, 14th through 17th, 20th, 22nd through 23rd, 27th through 29th 2010, and January 4th through 6th 2011.

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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Upgradient Contributions	Source Areas						
		HR-9	GM-23	GM-59	GM-59	GM-60	GM-60	GM-74S	GM-75S
		9/28/2010	9/29/2010	4/8/2010	9/29/2010	4/8/2010	9/29/2010	4/9/2010	9/29/2010
	Units	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	4.6	< 22 U	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U
1,1-Dichloroethane	µg/L	74	< 22 U	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U
1,1-Dichloroethene	µg/L	0.50 J	< 22 U	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U
Benzene	µg/L	< 2.5 U	< 22 U	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U
cis-1,2-Dichloroethene	µg/L	38	490	2.9 J	5.7 J	17 J	940	< 5.7 U	14 J
Ethylbenzene	µg/L	< 2.5 U	< 22 U	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U
Tetrachloroethene	µg/L	< 2.5 U	50	280	520	820	970	200	650
Toluene	µg/L	< 2.5 U	< 22 U	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U
trans-1,2-Dichloroethene	µg/L	5.3	16 J	< 8.0 U	< 15 U	< 22 U	10 J	< 5.7 U	< 29 U
Trichloroethene	µg/L	9.5	17 J	69	350	740	1300	44	890
Vinyl chloride	µg/L	0.67 J	500	< 8.0 U	< 15 U	< 22 U	18 J	< 5.7 U	< 29 U
Xylene (total)	µg/L	< 5.0 U	< 44 U	< 16 U	< 31 U	< 44 U	< 80 U	< 11 U	< 57 U
Total VOCs	**µg/L**	**132.6**	**1073**	**351.9**	**875.7**	**1577**	**3238**	**244.0**	**1554**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
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J - Value is estimated.
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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Downgradient Reactive Zone Performance Wells						
		GM-29	GM-28	GM-21	GM-6	GM-8	GM-19S	GM-19S
		9/29/2010	9/28/2010	9/28/2010	9/27/2010	9/27/2010	4/7/2010	9/27/2010
	Units	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	11 J	< 1.0 U	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	11 J	4.6	20	6.2	3.0	9.6	9.5
1,1-Dichloroethene	µg/L	< 20 U	< 1.0 U	< 1.0 U	< 1 U	< 1 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 20 U	< 1.0 U	< 1.0 U	1.1	4.7	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	660	2.1	3.9	4.9	< 1.0 U	0.27 J	< 1.0 U
Ethylbenzene	µg/L	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	17 J	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	< 20 U	< 1.0 U	< 1.0 U	< 1.0 U	0.18 J	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	19 J	1.5	3.0	0.89 J	0.29 J	0.45 J	0.46 J
Trichloroethene	µg/L	330	< 1.0 U	3.2	6.6	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	59	2.2	3.6	1.6	0.44 J	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 40 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**1107**	**10.4**	**34.5**	**21.7**	**8.9**	**10.3**	**10.0**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Closed North Settling Lagoon Monitoring Results				Closed South Settling Lagoon Monitoring Results			
		HR-4	W-2-N	W-3-N	W-4-N	HR-17	W-2-S	W-3-S	W-4-S
		9/28/2010	9/24/2010	9/24/2010	9/24/2010	9/23/2010	9/24/2010	9/23/2010	9/23/2010
	Units	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 2.0 U	0.41 J	< 1.7 U	1.4	0.87 J	1.1
1,1-Dichloroethane	µg/L	3.9	< 1.0 U	< 2.0 U	2.1	1.9	1.1	< 1.0 U	1.6
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	< 1.0 U	1.4	56	7.9	2.2	0.82 J	< 1.0 U	9.1
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	0.34 J	< 1.0 U	< 2.0 U	0.67 J	60	0.33 J	0.95 J	31
Toluene	µg/L	< 1.0 U	< 1.0 U	< 2.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	0.79 J	0.51 J	1.2 J	< 1.0 U	< 1.0 U	1.5
Trichloroethene	µg/L	0.28 J	< 1.0 U	< 2.0 U	13	18	5.9	2.3	20
Vinyl chloride	µg/L	< 1.0 U	< 1.0 U	2.4	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 4.0 U	< 2.0 U	< 3.3 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**4.5**	**1.4**	**59.2**	**24.6**	**83.3**	**9.6**	**4.1**	**64.3**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

				Downgradient On-Site			
		GM-43	GM-44	GM-45	GM-35	HR-2	HR-7
		9/24/2010	4/9/2010	4/9/2010	9/27/2010	9/28/2010	9/23/2010
	Units	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	< 8.0 U	1.8 J	2.7 J	4.8	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	6.8 J	2.5 J	2.5 J	19	5.6	0.26 J
1,1-Dichloroethene	µg/L	< 8.0 U	0.70 J	< 5.7 U	0.97 J	< 1.0 U	< 1.0 U
Benzene	µg/L	< 8.0 U	< 3.3 U	< 5.7 U	< 4.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	220	48	36	73	2.8	1.4
Ethylbenzene	µg/L	< 8.0 U	< 3.3 U	< 5.7 U	< 4.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	26	70	200	37	< 1.0 U	< 1.0 U
Toluene	µg/L	< 8.0 U	< 3.3 U	< 5.7 U	< 4.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	8.1	4.4	3.3 J	8.9	0.41 J	< 1.0 U
Trichloroethene	µg/L	170	110	180	120	0.39 J	7.5
Vinyl chloride	µg/L	< 8.0 U	< 3.3 U	< 5.7 U	4.3	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 16 U	< 6.7 U	< 11 U	< 8.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**430.9**	**237.4**	**424.5**	**268.0**	**9.2**	**9.2**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Property Boundary		Off-Site Plume Boundary		Off-Site Downgradient of the Site					
		GM-2	TW-2	GM-25	GM-77S	GM-16	GM-47	GM-47	GM-50	GM-50	GM-63
		9/27/2010	9/28/2010	10/21/2010	10/21/2010	9/23/2010	1/28/2010	9/23/2010	1/28/2010	9/23/2010	1/28/2010
	Units	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer	Upper Aquifer
Volatile Organic Compounds											
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1 J	0.85 J	0.77 J	1.5 J	1.6 J	2.0 J
1,1-Dichloroethane	µg/L	1.2	2.0	< 1.0 U	< 1.0 U	1.3 J	2.3 J	2.7	1.2 J	< 5.0 U	< 5.7 U
1,1-Dichloroethene	µg/L	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 4.0 U	< 2.5 U	< 1.7 U	< 5.0 U	< 5.0 U	< 5.7 U
Benzene	µg/L	< 1.0 U	1.2	< 1.0 U	< 1.0 U	< 4.0 U	< 2.5 U	< 1.7 U	< 5.0 U	< 5.0 U	< 5.7 U
cis-1,2-Dichloroethene	µg/L	3.8	2.1	< 1.0 U	< 1.0 U	2.2 J	51	42	8.1	4.0 J	3.2 J
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 4.0 U	< 2.5 U	< 1.7 U	< 5.0 U	< 5.0 U	< 5.7 U
Tetrachloroethene	µg/L	0.44 J	0.52 J	< 1.0 U	< 1.0 U	110	60	60	130	130	150
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 4.0 U	< 2.5 U	< 1.7 U	< 5.0 U	< 5.0 U	< 5.7 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	1.2 J	2.5	2.4	< 5.0 U	0.95 J	< 5.7 U
Trichloroethene	µg/L	0.95 J	1.6	< 1.0 U	< 1.0 U	75	24	22	120	140	140
Vinyl chloride	µg/L	2.5	0.71 J	< 1.0 U	< 1.0 U	< 4.0 U	< 2.5 U	0.39 J	< 5.0 U	< 5.0 U	< 5.7 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 8.0 U	< 5.0 U	< 3.3 U	< 10 U	< 10 U	< 11 U
Total VOCs	**µg/L**	**8.9**	**8.4**	**0**	**0**	**190.8**	**140.7**	**130.3**	**260.8**	**276.6**	**295.2**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Off-Site Downgradient of the Site											
	Units	GM-52 1/27/2010 Upper Aquifer	GM-52 9/22/2010 Upper Aquifer	GM-55 9/22/2010 Upper Aquifer	GM-62 4/8/2010 Upper Aquifer	GM-65S 1/27/2010 Upper Aquifer	GM-65S 9/22/2010 Upper Aquifer	GM-78 9/28/2010 Upper Aquifer	GM-79 9/22/2010 Upper Aquifer	GM-80 4/9/2010 Upper Aquifer	GM-80 9/21/2010 Upper Aquifer	GM-81 4/9/2010 Upper Aquifer	GM-26 9/22/2010 Upper Aquifer
Volatile Organic Compounds													
1,1,1-Trichloroethane	µg/L	1.0 J	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U
1,1-Dichloroethane	µg/L	1.0 J	0.94 J	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	0.23 J	< 1.0 U	0.30 J	0.92 J	< 1.0 U
1,1-Dichloroethene	µg/L	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 4.0 U	< 3.3 U	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	1.6 J	1.8 J	< 1.0 U	< 1.0 U	0.22 J	0.63 J	< 1.0 U	< 1.0 U	0.85 J	1.3	1.5	< 1.0 U
Ethylbenzene	µg/L	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	94	90	7.2	20	13	9.9	11	< 1.0 U	1.9	2.6	< 1.0 U	1.6
Toluene	µg/L	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	0.99 J	0.74 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	42	50	< 1.0 U	< 1.0 U	2.8	2.3	< 1.0 U	1.6	6.6	6.0	1.2	< 1.0 U
Vinyl chloride	µg/L	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 8.0 U	< 6.7 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**140.6**	**144.4**	**7.4**	**20.0**	**16.0**	**13.2**	**11.0**	**2.3**	**9.4**	**10.2**	**3.9**	**1.6**

µg/L - Micrograms per Liter.
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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Upgradient Contributions	On-Site Groundwater Quality				
		HR-12	GM-54	GM-54	GM-68D	GM-74D	GM-75D
		9/28/2010	1/28/2010	9/23/2010	9/29/2010	4/9/2010	4/8/2010
	Units	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
1,1-Dichloroethane	µg/L	2.1	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
1,1-Dichloroethene	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
Benzene	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
cis-1,2-Dichloroethene	µg/L	1.2	< 5.0 U	< 2.5 U	3.0 J	8.0	19
Ethylbenzene	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
Tetrachloroethene	µg/L	< 1.0 U	120	92	100	98	320
Toluene	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
Trichloroethene	µg/L	< 1.0 U	2.4 J	2.2 J	22	50	200
Vinyl chloride	µg/L	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 2.5 U	< 9.1 U
Xylene (total)	µg/L	< 2.0 U	< 10 U	< 5.0 U	< 6.7 U	< 5.0 U	< 18 U
Total VOCs	**µg/L**	**3.3**	**122.4**	**94.2**	**125**	**156**	**539**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Lower Aquifer Groundwater Quality					Downgradient Groundwater Quality		
		HR-15	GM-19D	GM-11	GM-15	GM-20D	GM-9	GM-65D	DN-13
		9/24/2010	9/27/2010	9/22/2010	9/23/2010	9/22/2010	9/22/2010	1/27/2010	9/22/2010
	Units	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	0.32 J	1.0	0.88 J	0.48 J
1,1-Dichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	0.35 J	1.2	1.6
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	3.0	2.4	< 1.0 U	1.0	< 1.0 U	0.46 J	1.1	6.9
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	< 1.0 U	< 1.0 U	1.5	< 1.0 U	2.2	< 1.0 UJ	< 1.0 U	< 1.0 U
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J
Trichloroethene	µg/L	0.60 J	0.98 J	31	6.5	6.5	17 J	1.5	5.0
Vinyl chloride	µg/L	3.8	9.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**7.4**	**13.3**	**32.9**	**8.7**	**9.0**	**18.8**	**4.7**	**15.7**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

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Table 3. Summary of Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Side Gradient Off-Site Plume Bounday			
		GM-77D	GM-83D	GM-84	GM-84
		1/28/2010	9/22/2010	1/27/2010	9/23/2010
	Units	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	18	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	< 1.0 U	< 1.0 U	6.4	5.9
Vinyl chloride	µg/L	< 1.0 U	2.0	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**18**	**2.3**	**6.4**	**5.9**

µg/L - Micrograms per Liter.
All QA/QC results for 2010 data are shown in Appendix C.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

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Table 4. Influent Monitoring of the Air Stripper Tower for 2010, Motors Liquidation Company, Moraine, Ohio.

Constituent	Units	1/13/2010	2/8/2010	3/8/2010	4/8/2010	5/13/2010	6/14/2010	7/13/2010	8/3/2010	9/1/2010	10/1/2010	11/8/2010	12/2010[3]
Oil & Grease[1]	mg/L	< 5.0 U	< 5.0 U	1.3 B	< 5.0 U	< 5.0 U	< 5.0 U	0.86 B	0.87 B	1.1 B	< 5.0 U	< 5.0 U	NA
VOCs[2]													
Benzene	µg/L	1.2	1.2	1.1	0.97 J	1.5	1.4	1.3	1.2	1.3	1.2	1.3	NA
Chloroethane	µg/L	6.7	11	6.0	6.6	9.2	7.3	7.5	11	8.5	10	6.6	NA
1,1-Dichloroethane	µg/L	2.7	3.2	3.1	3.7	2.6	2.4	2.4	1.8	1.8	1.9	2.0	NA
cis-1,2-Dichloroethene	µg/L	2.3	2.3	1.6	9.9	6.0	6.8	5.3	4.0	3.9	1.8	1.6	NA
trans-1,2-Dichloroethene	µg/L	0.34 J	0.34 J	0.36 J	0.51 J	0.31 J	0.35 J	0.39 J	0.30 J	0.31 J	0.25 J	0.26 J	NA
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Tetrachloroethene	µg/L	0.78 J	0.85 J	0.68 J	0.67 J	0.74 J	0.63 J	0.69 J	0.58 J	0.53 J	0.55 J	0.55 J	NA
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Trichloroethene	µg/L	2.6	2.2	1.8	5.3	2.7	2.1	2.5	1.9	1.5	1.1	1.0	NA
Vinyl chloride	µg/L	0.63 J	1.2	0.72 J	3.5	2.7	2.2	1.9	1.4	1.2	1.0	0.94 J	NA
Xylenes	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	0.44 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	NA
Total VOCs	**µg/L**	**17.3**	**22.3**	**15.4**	**31.2**	**25.8**	**23.9**	**22.0**	**22.2**	**19.0**	**17.8**	**14.3**	**NA**

mg/L - Milligrams per Liter.
µg/L - Micrograms per Liter.
1 - Analytical method for oil & grease is EPA 1664A.
2 - Analytical method for volatile organic compounds (VOC) analysis is SW-846 Method 8260B.
3 - The Stripper Tower System was down during the month of December for repairs therefore no sample was collected.
NA - Not analyzed.
J or B - Estimated result less than reporting limit.
< - Constituent not detected above laboratory reporting limit shown.

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Table 5. NPDES Permit Effluent Monitoring of the Air Stripper Tower for 2010, Motors Liquidation Company, Moraine, Ohio.

Constituent	Units	Permit Limit	1/13/2010	2/8/2010	3/8/2010	4/8/2010	5/13/2010	6/14/2010	7/13/2010	8/3/2010	9/1/2010	10/1/2010	11/8/2010	12/2010[4]
pH[1]	S.U.	6.5 - 9	7.89	7.01	6.89	7.00	NM	7.73	7.36	7.81	7.78	7.72	7.60	NA
Oil & Grease[2]	mg/L	10	1.3 B	< 5.0 U	< 5.0 U	< 5.0 U	0.95 B	0.90 B	< 5.0 U	1.0 B	< 5.0 U	< 5.0 U	< 5.0 U	NA
VOCs[3]														
Benzene	µg/L	10	0.29 J	0.45 J	0.61 J	0.59 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Chloroethane	µg/L	10	1.1	4.2	5.1	4.7	< 1.0 U	0.32 J	0.38 J	< 1.0 U	0.51 J	0.80 J	0.96 J	NA
1,1-Dichloroethane	µg/L	10	0.91 J	2.6	2.8	3.0	< 1.0 U	< 1.0 U	0.24 J	< 1.0 U	< 1.0 U	< 1.0 U	0.49 J	NA
cis-1,2-Dichloroethene	µg/L	10	1.0	1.9	1.5	8.4	< 1.0 U	0.37 J	0.59 J	0.38 J	0.48 J	0.22 J	0.43 J	NA
trans-1,2-Dichloroethene	µg/L	10	< 1.0 U	0.24 J	0.34 J	0.34 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Ethylbenzene	µg/L	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Tetrachloroethene	µg/L	10	< 1.0 U	0.67 J	0.51 J	0.52 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Toluene	µg/L	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
1,1,1-Trichloroethane	µg/L	10	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Trichloroethene	µg/L	10	0.68 J	1.8	1.6	4.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Vinyl Chloride	µg/L	10	< 1.0 U	0.60 J	0.39 J	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	NA
Xylenes	µg/L	10	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	NA

S.U. - Standard Units.
mg/L - Milligrams per Liter.
µg/L - Micrograms per Liter.
NM - Not measured.
NA - Not analyzed.
1 - Analytical method for pH is EPA 150.1.
2 - Analytical method for oil & grease is EPA 1664A.
3 - Analytical method for volatile organic compounds (VOCs) is SW-846 Method 8260B.
4 - The Stripper Tower System was down during the month of December for repairs therefore no sample was collected.
J or B - Estimated result less than reporting limit.
< - Constituent not detected above laboratory reporting limit shown.

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Table 6. DN-13 Monthly Monitoring for 2010, Motors Liquidation Company, Moraine, Ohio.

Volatile Organic Compound[1]	Units	1/25/2010	2/8/2010	3/8/2010	4/8/2010	5/13/2010	6/14/2010	7/13/2010	8/4/2010	9/1/2010	10/1/2010	11/1/2010	12/2/2010
1,1,1,2-Tetrachloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,1,2,2-Tetrachloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,1,2-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,1-Dichloroethane	µg/L	2.2	1.9	2.1	1.9	1.9	1.9	1.8	1.7	1.8	1.8	1.6	< 5.0 U
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,2,3-Trichloropropane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,2-Dibromo-3-chloropropane	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
1,2-Dibromoethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,2-Dichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,2-Dichloropropane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
1,4-Dioxane	µg/L	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 1000 U
2-Butanone	µg/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U
2-Hexanone	µg/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U
4-Methyl-2-pentanone	µg/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U
Acetone	µg/L	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 50 U
Acetonitrile	µg/L	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U
Acrolein	µg/L	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U
Acrylonitrile	µg/L	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 100 U
Allyl chloride	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Bromodichloromethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Bromoform	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Bromomethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Carbon disulfide	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Carbon tetrachloride	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Chlorobenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Chloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Chloroform	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Chloromethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U

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Table 6. DN-13 Monthly Monitoring for 2010, Motors Liquidation Company, Moraine, Ohio.

Volatile Organic Compound[1]	Units	1/25/2010	2/8/2010	3/8/2010	4/8/2010	5/13/2010	6/14/2010	7/13/2010	8/4/2010	9/1/2010	10/1/2010	11/1/2010	12/2/2010
Chloroprene	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	<10 U
cis-1,2-Dichloroethene	µg/L	8.6	7.6	7.4	6.8	7.5	7.7	7.7	7.2	7.5	6.8	6.5	6.5
cis-1,3-Dichloropropene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Dibromochloromethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Dibromomethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Dichlorodifluoromethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Ethyl methacrylate	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Iodomethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Isobutanol	µg/L	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 250 U
Methyl acrylonitrile	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
Methyl methacrylate	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
Methylene chloride	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Propionitrile	µg/L	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	< 20 U
Styrene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Tetrachloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
trans-1,3-Dichloropropene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
trans-1,4-Dichloro-2-butene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Trichloroethene	µg/L	6.4	5.5	5.6	4.8	5.1	5.4	5.7	5.3	5.6	5.0	4.5	5.3
Trichlorofluoromethane (CFC-11)	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U
Vinyl acetate	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
Vinyl chloride	µg/L	2.5	2.0	1.8	1.5	1.4	1.3	1.2	1.4	1.4	1.8	1.4	< 5.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U
Total VOCs	**µg/L**	**19.7**	**17.0**	**16.9**	**15.0**	**15.9**	**16.3**	**16.4**	**15.6**	**16.3**	**15.4**	**14.0**	**11.8**

1 - Analytical method for volatile organic compounds (VOC) analysis is SW-846 Method 8260B.
All concentrations in micrograms per liter (µg/L) as reported by the laboratory.
< - Constituent not detected above laboratory reporting limit shown.
J - Estimated result less than reporting limit.

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Well	Surface Elevation	TOC Elevation	Well Diameter	Screened Interval				Borehole Depth	Site Coordinates		State Plane Coordinates		Geologic
	ft msl	ft msl	inches	ft bls	ft bls	ft msl	ft msl	ft bls	Northing, y	Easting, x	Northing, y	Easting, x	Modifiers
Upper Aquifer Wells													
W-1-N	737.61	739.02	4	35	70	703	668	70	6618	5037	625116.2043	1483946.9943	UA:TT
W-2-N	729.68	731.68	4	35	60	695	670	60	5264	4744	623865.9104	1483351.6742	UA
W-3-N	731.98	733.66	4	32	57	700	675	57	5157	5032	623695.8796	1483607.3111	UA
W-4-N	729.88	731.63	4	40	65	690	665	65	5157	5224	623651.9134	1483795.0108	UA:TT
HR-1	730.10	732.71	2	47	57	683	673	57	3420	5205	621967.7490	1483378.1275	UA:TT
HR-2	732.62	734.75	2	47	57	686	676	58	5209	5455	623649.3090	1484030.9226	UA:TT
HR-3	734.31	736.75	2	50	60	684	674	61	5211	5648	623612.1403	1484238.0984	UA:TT
HR-4	740.61	742.60	2	55	65	686	676	67	6111	5214	624582.0074	1484003.5860	UA:TT
HR-5	730.95	734.27	2	44	54	687	677	59	4760	4985	623354.8172	1483478.6541	UA:TT
HR-6	730.18	732.66	2	43	53	687	677	59	4009	4985	622588.6622	1483298.8965	UA:TT
HR-7	731.00	731.73	2	47	57	684	674	58	4743	4678	623373.8266	1483168.5266	UA:TT
HR-8	740.84	743.42	2	54	64	687	677	76	6819	5626	625177.0505	1484566.7534	UA
HR-9	741.00	743.51	2	58	68	683	673	75	7669	5508	626071.2019	1484648.1158	UA
HR-11	740.90	743.33	2	60	70	681	671	75	7313	6207	625682.4858	1485262.9762	UA
HR-16	724.60	727.01	4	42	62	683	663	70	2354	4198	621167.6648	1482171.8435	UA:TT
HR-17	725.40	726.43	4	27	47	698	678	56	2457	4776	621128.4488	1482780.5158	UA:TT
W-1-S	728.23	729.29	4	25	60	703	668	60	2777	4958	621396.0291	1482990.4046	UA:TT
W-2-S	725.01	726.64	4	30	65	695	660	65	1786	4207	620618.7813	1482078.7622	UA:TT
W-3-S	NM	729.17	4	36	76	NA	NA	76	1678	4386	620466.6686	1482207.4451	UA
W-4-S	726.66	727.92	4	30	70	697	657	70	1671	4785	620394.9579	1482564.2035	UA
GM-2	NM	735.81	2	45	55	NA	NA	55	1102	5803	619586.2208	1483427.9998	UA
4S	NM	731.36	4	30	65	NA	NA	65	1071	5564	619578.3226	1483129.6378	UA
GM-6	NM	730.27	2	35	45	NA	NA	45	1042	5306	619627.6172	1482930.9571	UA:TT
GM-8	735.17	735.17	2	40	50	695	685	50	1283	5285	619866.4552	1482965.5535	UA:TT
GM-10	NM	723.90	2	40	50	NA	NA	50	162	5258	618762.6410	1482667.7306	UA:TT
GM-16	NM	725.30	2	48	58	NA	NA	58	652	4566	619420.5576	1482149.1466	UA
GM-17	NM	723.84	2	40	50	NA	NA	50	672	5174	619311.8761	1482697.0210	UA:TT
GM-18	NM	723.80	2	45	55	NA	NA	55	583	4993	619229.5883	1482505.4542	UA
GM-19S	NM	730.92	2	47	57	NA	NA	57	1767	5274	620339.5683	1483017.2551	UA:TT
GM-21	725.36	725.00	2	45	55	680	670	55	1519	6052	619920.5937	1483764.5951	UA:TT
GM-22	731.84	731.63	2	44	54	688	678	54	2531	6285	620840.4209	1484226.5683	UA:TT
GM-23	NM	731.07	2	24	34	NA	NA	34	5393	6018	623699.2336	1484619.9213	UA:TUT
GM-24	747.61	747.29	2	58	68	690	680	70	8122	7812	625945.0802	1486991.6971	UA

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Well	Surface Elevation	TOC Elevation	Well Diameter	Screened Interval				Borehole Depth	Site Coordinates		State Plane Coordinates		Geologic
	ft msl	ft msl	inches	ft bls	ft bls	ft msl	ft msl	ft bls	Northing, y	Easting, x	Northing, y	Easting, x	Modifiers
Upper Aquifer Wells													
GM-25	747.05	746.17	2	48	58	699	689	58	4930	8170	622786.2705	1486599.6865	UA:TT
GM-26	722.29	722.29	2	50	60	672	662	60	-988	4961	617729.9788	1482129.0695	UA
GM-27	731.03	730.57	2	40	50	691	681	58	5393	6029	623696.6136	1484630.7659	UA:TT
GM-28	NM	736.46	2	22	32	NA	NA	32	5041	5916	623392.3799	1484436.8617	UA:TUT
GM-29	731.31	731.37	2	28	38	703	693	38	5209	5974	623534.4471	1484535.0727	UA:TUT
GM-30(1)	NM	734.79	2	28	38	NA	NA	38	5559	5970	623876.3465	1484609.5933	UA:TUT
GM-31(1)	732.05	732.13	2	51	61	681	671	62	2939	5914	621336.9337	1483965.1322	UA:TT
GM-32	732.47	732.08	2	51	61	681	671	61	3486	6070	620114.2493	1483379.9656	UA:TT
GM-33	730.30	729.77	2	48	58	682	672	58	2278	5762	620761.9955	1483714.2282	UA:TT
GM-34	731.06	730.56	2	26	36	705	695	36	2278	5770	620753.8480	1483727.5719	UA:WT
GM-35	731.56	731.27	2	57	67	675	665	70	1750	5510	620389.3810	1483279.5201	UA:TT
GM-36	731.44	731.11	2	25	35	706	696	35	1755	5551	620383.2312	1483300.8386	UA:WT
GM-37	730.36	730.05	2	46	56	684	674	56	1857	5696	620407.3595	1483456.0282	UA:TT
GM-38	730.31	729.88	2	24	34	706	696	34	1858	5686	620403.1387	1483471.6479	UA:WT
GM-43	729.41	729.00	2	40	50	689	679	54	3655	5211	622192.2046	1483441.3723	UA:TT
GM-44	729.30	728.77	2	51	61	678	668	62	3137	5217	621686.3425	1483331.5124	UA:TT
GM-45	730.03	729.75	2	50	60	680	670	60	2853	5217	621409.1769	1483266.9285	UA:TT
GM-46	728.13	727.79	2	19.8	29.8	708	698	29.8	5130	6257	623393.7601	1484777.0271	UA:TUT
GM-47	727.03	726.75	2	49.4	59.4	678	668	59.4	1312	4776	620060.6143	1482479.3608	UA:TT
GM-48	728.98	728.67	2	63.2	73.2	666	656	73.2	610	4200	619488.4287	1481740.8154	UA:TT
GM-49	728.28	727.88	2	66.9	76.9	661	651	76.9	-222	4383	618643.7266	1481742.8231	UA:TT
GM-50	727.03	726.56	2	29.7	39.7	697	687	39.7	1312	4773	620065.0482	1482445.8840	UA:WT
GM-51	728.82	728.30	2	34.3	44.3	695	685	44.3	614	4198	619465.2399	1481753.1472	UA:WT
GM-52	728.16	727.62	2	34	44	694	684	44	-226	4383	618604.5296	1481740.7235	UA:WT
GM-53	730.53	730.35	2	23	33	708	698	33	2999	6824	621184.8324	1484855.6876	UA:TT
GM-55	719.90	719.86	2	25	35	695	685	35	-646	5202	618008.2839	1482441.5719	UA:WT
GM-57	719.41	721.74	2	25	35	694	684	35	-993	4966	617724.0851	1482132.1351	UA:WT
GM-59	732.46	732.25	2	25	35	707	697	35	4501	6323	622761.5281	1484712.7729	UA:WT
GM-60	732.46	732.24	2	42	52	690	680	52	4501	6324	622761.3002	1484712.7809	UA:TT
GM-62	722.17	722.11	2	50	60	672	662	60	-189	5443	618397.3774	1482818.1330	UA
GM-63	726.21	725.79	2	30	40	696	686	40	1625	4919	620283.7218	1482686.3290	UA:WT
GM-64	726.38	725.95	2	50	60	676	666	60	1625	4914	620284.6106	1482681.2885	UA:TT

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Well	Surface Elevation	TOC Elevation	Well Diameter	Screened Interval				Borehole Depth	Site Coordinates		State Plane Coordinates		Geologic
	ft msl	ft msl	inches	ft bls	ft bls	ft msl	ft msl	ft bls	Northing, y	Easting, x	Northing, y	Easting, x	Modifiers
Upper Aquifer Wells													
GM-65S	723.94	723.58	2	42	52	682	672	52	-1488	4312	617392.2259	1481382.4271	UA
GM-66	733.50	733.22	2	45	55	688	678	57	4377	5714	622780.3860	1484091.5572	UA:TT
GM-67S	732.54	732.06	2	44	54	689	679	54	4744	6096	623050.0533	1484547.2174	UA:TT
GM-68S	732.48	732.18	2	39.5	49.5	693	683	49.5	4064	6358	622326.2125	1484652.8528	UA:TT
GM-71	737.19	736.82	2	21	31	716	706	37	4494	6849	622633.7567	1485222.9070	UA:TUT
GM-72	737.05	736.78	2	52	62	685	675	67	4496	6861	622633.7567	1485233.9320	UA:TT
GM-74S	732.52	732.17	2	40	50	693	683	50	4198	6417	622444.5430	1484733.8601	UA:TT
GM-75S	738.26	737.69	2	42	52	696	686	52	4605	6635	622790.6745	1485039.3503	UA:TT
GM-76S	739.49	739.00	2	27	37	712	702	37	5396	6730	623538.7809	1485313.4176	UA:TT
GM-77S	741.49	741.14	2	33	43	708	698	43	3618	7743	621576.9342	1485892.0315	UA:TT
GM-78	721.58	721.18	2	40	50	682	672	70	-267	5723	618257.5787	1483035.5947	UA
GM-79	718.54	717.91	2	45	55	674	664	60	-29	3623	618970.9862	1481045.8893	UA:TT
GM-80	716.23	715.82	2	15	25	701	691	25	-1046	3753	617951.2997	1480939.3277	UA:WT
GM-81	715.80	715.31	2	50	60	666	656	90	-1063	3752	617934.8895	1480934.7439	UA
GM-83S	726.44	725.84	2	44	54	682	672	54	3718	3837	622568.7465	1482112.9569	UA:TT
EAST	NM	730.98	2	NA	NA	NA	NA	71	2120	5818	620545.6947	1483674.2190	UA:TT
WEST	NM	731.08	2	NA	NA	NA	NA	52	2004	5463	620509.6228	1483299.0985	UA:TT
WSU-17	726.93	726.18	2	11.69	66.9	715.2	659.3	67	970	5279	619558.2279	1482898.5384	UA:TT
WSU-18	734.18	733.52	2	29.2	69.2	705.0	664.3	69	1004	5458	619554.9290	1483096.6469	UA:TT
WSU-19	727.28	726.62	2	33.4	63.4	693.9	663.2	63	1182	5212	619736.8872	1482880.3995	UA:TT
WSU-22	726.21	726.49	2	NA	NA	NA	NA	52	1625	4917	620311.4363	1482687.2293	UA:TT
WSU-23	724.65	724.90	2	NA	NA	NA	NA	58	1535	4204	620381.0854	1481978.6336	UA:TT
WSU-24	725.10	724.82	2	NA	NA	NA	NA	66	574	5663	619124.1425	1483169.1107	UA:TT
TW-2	NM	733.38	10	35	45	NA	NA	45	1027	5337	619568.4036	1482942.6663	UA:TT
ME-2[1]	732.38	732.08	2	27	37	705	695	37	2945	5973	621327.2669	1484014.6258	UA:WT
ME-3[1]	732.23	731.73	2	29	39	703	693	39	2897	5938	621288.3532	1483969.5620	UA:WT
ME-4[1]	732.05	732.24	2	26	36	706	696	36	2925	5914	621321.4422	1483952.3693	UA:WT
ME-6[1]	733.09	732.68	2	29	39	704	694	39	3325	5927	621706.9517	1484057.0461	UA:WT
MW-1[2]	713.60	715.53	2	61.2	71.2	652	642	71.7	2164	2247	621420.6144	1480209.1127	UA:TT
MW-4[2]	707.45	707.19	2	19.6	39.6	688	668	40	-653	692	619035.3250	1478050.0733	UA
MW-5[2]	709.59	709.34	2	22.5	42.5	687	667	43	-682	1646	618787.9839	1478971.6197	UA
MW-9[2]	713.16	712.85	2	63	73	650	640	73.5	-2309	1798	617169.4849	1478747.1452	UA
Lower Aquifer Wells													
GM-1	NM	735.74	2	90	100	NA	NA	100	1087	5803	619570.7118	1483421.8130	LA
GM-3	NM	730.44	2	90	100	NA	NA	100	1023	5309	619621.9727	1482926.3542	LA
GM-4	NM	731.46	2	140	150	NA	NA	150	1010	5322	619602.7099	1482922.7333	LA
GM-5	NM	731.29	2	90	100	NA	NA	100	1037	5512	619588.6213	1483126.6107	LA

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	ft msl	ft msl	inches	ft bls	ft bls	ft msl	ft msl	ft bls	Northing, y	Easting, x	Northing, y	Easting, x	Modifiers
Lower Aquifer Wells													
GM-7R	NM	735.61	2	80	90	NA	NA	91	1247	5295	619863.8298	1482962.1340	LA
GM-9	NM	724.07	2	90	100	NA	NA	100	146	5247	618771.8670	1482674.1902	LA
GM-11	NM	723.71	2	90	100	NA	NA	100	679	5164	619318.6270	1482694.0524	LA
GM-13	NM	723.82	2	90	100	NA	NA	100	566	4990	619239.1943	1482501.6168	LA
GM-14	NM	723.50	2	140	150	NA	NA	150	611	5030	619244.0886	1482515.5184	LA
GM-15	NM	725.23	2	90	100	NA	NA	100	664	4581	619427.7004	1482156.5128	LA
GM-19D	NM	730.73	4	145	150	NA	NA	150	1775	5298	620339.8625	1483063.5273	LA
GM-20D	NM	727.26	4	87	92	NA	NA	92	619	5699	619177.7271	1483236.8889	LA
GM-39	731.15	730.95	2	106	116	625	615	116	5396	6006	623705.5364	1484609.0626	LA
GM-40	727.28	727.04	2	140	150	587	577	150	3089	4984	621693.8055	1483084.8121	LA
GM-41	731.22	733.65	2	104	114	627	617	114	3430	6684	621635.7801	1484818.4021	LA
GM-42	729.48	729.16	2	140	150	589	579	150	2338	5651	620810.1968	1483562.5296	LA
GM-54	730.51	730.29	2	70	80	661	651	80	2995	6818	621182.1891	1484848.6752	LA
GM-56	719.75	719.52	2	75	85	645	635	85	-646	5209	618006.1752	1482448.5647	LA:NTP
GM-58	735.59	735.46	2	72	82	664	654	82	3451	7183	621541.9882	1485308.7468	LA:BT
GM-61	732.48	732.23	2	70	80	662	652	80	4501	6318	622762.6947	1484707.4691	LA:BT
GM-65D	723.83	723.54	2	85	95	639	629	108	-1491	4311	617389.5183	1481380.4746	LA:NTP
GM-67D	732.64	732.19	2	70	80	663	653	121	4744	6082	623053.5624	1484533.4779	LA:BT
GM-68D	732.46	732.27	2	64	74	668	658	150	4064	6358	622327.5383	1484645.8862	LA:BT
GM-69	732.42	732.08	2	90	100	642	632	140	3022	6352	621314.8199	1484401.6371	LA
GM-70	737.47	737.19	2	72	82	665	655	120	3887	7283	621944.0370	1485505.8829	LA
GM-73	737.34	736.97	2	85	95	652	642	120	4495	6843	622635.9765	1485216.5022	LA
GM-74D	732.49	732.04	2	69	79	663	653	120	4203	6417	622450.0123	1484735.6502	LA:BT
GM-75D	738.13	737.68	2	85	95	653	643	120	4604	6623	622793.2406	1485027.5873	LA
GM-76D	739.48	738.94	2	70	80	669	659	120	5392	6730	623535.2043	1485312.4245	LA:BT
GM-77D	741.52	740.93	2	75	85	667	657	100	3615	7741	621574.4283	1485889.3662	LA:BT
GM-82	732.55	732.14	2	85	95	648	638	119.5	3640	6107	621972.7146	1484304.7894	LA
GM-83D	726.41	725.77	2	110	120	616	606	120	3719	3844	622568.1953	1482120.4685	LA
GM-84	740.44	739.92	2	96.5	106.5	644	634	120	2580	7606	620619.4561	1485522.1487	LA:BT
HR-10	740.90	742.81	4	115	125	626	616	125	7686	5492	626078.4125	1484653.5358	LA:NTP
HR-12	741.00	742.64	4	120	130	621	611	130	7333	6194	625702.3993	1485250.0490	LA
HR-13	733.20	735.03	4	75	85	658	648	85	5221	5665	623616.8315	1484215.3411	LA:BT
HR-14	729.90	731.63	4	78	88	652	642	88	5178	5209	623675.4267	1483782.2839	LA
HR-15	732.10	733.74	4	88	98	644	634	98	5161	5020	623712.7941	1483595.9072	LA
M73C	NM	716.55	NA	NA	NA	NA	NA	NA	180	4539	618973.2537	1482114.3309	LA
MT69[3]	719.84	722.71	8	NA	NA	NA	NA	158	-988	5020	617749.1907	1482121.3945	LA
MT576M	750.00	751.46	5	NA	NA	NA	NA	114	4804	9620	622940.2909	1487799.4686	LA

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Table 7. Monitoring Well Construction Details, Motors Liquidation Company, Moraine, Ohio.

Well	Surface Elevation ft msl	TOC Elevation ft msl	Well Diameter inches	Screened Interval ft bls	Screened Interval ft bls	Screened Interval ft msl	Screened Interval ft msl	Borehole Depth ft bls	Site Coordinates Northing, y	Site Coordinates Easting, x	State Plane Coordinates Northing, y	State Plane Coordinates Easting, x	Geologic Modifiers
Lower Aquifer Wells													
MT596M*	759.18	757.73	5	NA	NA	NA	NA	89	6438	10644	624057.1091	1488849.1418	LA
DN-13	724.09	727.54	20	110	170	614	554	170	470	4760	619196.1959	1482267.5426	LA
11B	744.50	742.56	NA	NA	NA	NA	NA	158	4501	7456	622501.4801	1485799.6814	LA
12A	740.86	742.39	18	104	144	637	597	154	4787	7510	622804.0361	1485951.2100	LA
A	NM	739.00	20	155	205	NA	NA	205	6045	6056	624325.4108	1484805.7949	LA
31	NM	734.05	20	90	122	NA	NA	122	5521	6422	623727.4107	1485049.2752	LA
34	NM	733.46	20	107	140	NA	NA	140	4004	6754	622178.4664	1485017.7925	LA
39	NM	732.07	20	117	142	NA	NA	145	5263	6435	623442.4628	1484987.5777	LA
44	733.91	734.62	24	128	166	606	568	NA	6038	5223	624519.7322	1483988.8824	LA
FW-1A	NM	739.89	24	105	166	NA	NA	169	7344	7069	625357.5160	1486090.3366	LA
FW-2	NM	737.48	20	NA	150	NA	NA	160	4470	7259	622516.4369	1485616.6642	LA
FW-3	NM	739.26	20	NA	141	NA	NA	200	4476	6593	622675.0394	1484968.9430	LA
FW-4	NM	731.62	14	NA	136	NA	NA	160	2316	6453	620605.0473	1484338.1137	LA

TOC - Top of Casing.
ft msl - Feet Above Mean Sea Level.
ft bls - Feet Below Land Surface.
NA - Not Available.
NM - Not Measured.
(1) - Depth of screened interval and total well depth have been modified from the well log due to site construction.
(2) - City of Moraine Monitoring Wells.
(3) - Well unusable - collapsed screen.
* Measuring point is top of cement housing.
Site coordinates based on site-specific benchmarks.
State plane coordinates in NAD 83 Ohio South.
UA - Upper Aquifer.
LA - Lower Aquifer.
TT - Top of Till (regional clay till).
TUT - Top of Upper Till (upper clay till).
BT - Below Till (regional clay till).
WT - Water Table (screened across the watertable interface).
NTP - No Till Present.

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Table 8. Groundwater Level Measurements Collected During September 20 and 21, 2010, Motors Liquidation Company, Moraine, Ohio.

Well	Measuring Point Elevation	Depth-to-Water (feet)	Total Depth (feet)	Groundwater Elevation (AMSL)
Upper Aquifer Wells				
W-1-N	739.02	31.08	71.43	707.94
W-2-N	731.68	24.41	61.42	707.27
W-3-N	733.66	26.42	57.54	707.24
W-4-N	731.63	24.68	67.57	706.95
HR-1	732.71	26.83	59.24	705.88
HR-2	734.75	27.31	58.57	707.44
HR-3	736.75	29.29	62.03	707.46
HR-4	742.60	34.69	66.88	707.91
HR-5	734.27	27.35	57.84	706.92
HR-6	732.66	26.42	55.20	706.24
HR-7	731.73	24.85	57.91	706.88
HR-8	743.42	35.25	66.18	708.17
HR-9	743.51	34.98	69.85	708.53
HR-11	743.33	34.69	68.96	708.64
HR-16	727.01	21.73	64.61	705.28
HR-17	726.43	20.88	48.15	705.55
W-1-S	729.29	23.47	58.40	705.82
W-2-S	726.64	21.98	67.30	704.66
W-3-S	729.17	24.49	73.70	704.68
W-4-S	727.92	22.97	71.03	704.95
GM-2	735.81	31.03	56.34	704.78
4S	731.36	26.87	66.17	704.49
GM-6	730.27	26.02	46.21	704.25
GM-8	735.17	30.79	51.23	704.38
GM-10	723.90	20.03	50.00	703.87
GM-16	725.30	21.26	56.98	704.04
GM-17	723.84	19.68	49.58	704.16
GM-18	723.80	19.76	54.10	704.04
GM-19S	730.92	25.74	56.22	705.18
GM-21	725.00	19.86	53.37	705.14
GM-22	731.63	25.48	56.20	706.15
GM-23	731.07	23.42	31.97	707.65
GM-24	747.29	38.02	68.78	709.27
GM-25	746.17	38.38	56.31	707.79
GM-26	722.29	19.05	58.39	703.24
GM-27	730.57	22.87	46.41	707.70
GM-28	736.46	29.13	36.14	707.33
GM-29	731.37	23.95	32.61	707.42
GM-30	734.79	26.58	36.13	708.21
GM-31	732.13	26.22	63.13	705.91
GM-32	732.08	26.95	56.68	705.13
GM-33	729.77	24.10	54.24	705.67
GM-34	730.56	24.90	35.12	705.66
GM-35	731.27	26.19	65.70	705.08
GM-36	731.11	25.91	34.29	705.20

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Table 8. Groundwater Level Measurements Collected During September 20 and 21, 2010, Motors Liquidation Company, Moraine, Ohio.

Well	Measuring Point Elevation	Depth-to-Water (feet)	Total Depth (feet)	Groundwater Elevation (AMSL)
Upper Aquifer Wells				
GM-37	730.05	24.55	34.33	705.36
GM-38	729.88	24.69	55.93	707.03
GM-43	729.00	22.85	49.76	706.15
GM-44	728.77	22.97	60.88	705.80
GM-45	729.75	23.36	59.91	706.39
GM-46	727.79	20.08	27.70	707.71
GM-47	726.75	22.40	59.27	704.35
GM-48	728.67	24.84	72.10	703.83
GM-49	727.88	24.66	75.25	703.22
GM-50	726.56	22.25	39.53	704.31
GM-51	728.30	24.61	44.11	703.69
GM-52	727.62	24.39	43.86	703.23
GM-53	730.35	24.07	32.66	706.28
GM-55	719.86	16.49	35.00	703.37
GM-57	721.74	NM	NM	N/A
GM-59	732.25	25.21	34.31	707.04
GM-60	732.24	25.20	50.42	707.04
GM-62	722.11	18.33	56.70	703.78
GM-63	725.79	21.12	39.06	704.67
GM-64	725.95	21.28	58.27	704.67
GM-65S	723.58	21.23	51.94	702.35
GM-66	733.22	26.42	54.06	706.80
GM-67S	732.06	24.89	53.50	707.17
GM-68S	732.18	25.29	49.02	706.89
GM-71	736.82	29.62	61.35	707.20
GM-72	736.78	29.54	32.00	707.24
GM-74S	732.17	25.17	48.88	707.00
GM-75S	737.69	30.54	51.50	707.15
GM-76S	739.00	30.90	36.71	708.10
GM-77S	741.14	34.12	42.17	707.02
GM-78	721.18	NM	NM	NA
GM-79	717.91	14.75	54.02	703.16
GM-80	715.82	13.44	24.42	702.38
GM-81	715.31	12.83	59.71	702.48
GM-83S	725.84	19.72	53.74	706.12
EAST	730.98	25.36	71.14	705.62
WEST	731.08	24.63	51.87	706.45
WSU-17	726.18	21.87	65.37	704.31
WSU-18	733.52	29.06	60.51	704.46
WSU-19	726.62	23.44	62.99	703.18
WSU-23	724.90	20.51	57.16	704.39
WSU-24	724.82	20.35	65.36	704.47
TW-2 (ON)	733.38	30.27	46.04	703.11
ME-2	732.08	NM	NM	NA
ME-3	731.73	25.82	36.64	705.91
ME-4	732.24	26.38	27.62	705.86
ME-6	732.68	26.79	35.52	705.89

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Table 8. Groundwater Level Measurements Collected During September 20 and 21, 2010, Motors Liquidation Company, Moraine, Ohio.

Well	Measuring Point Elevation	Depth-to-Water (feet)	Total Depth (feet)	Groundwater Elevation (AMSL)
Lower Aquifer Wells				
GM-1	735.74	31.11	101.95	704.63
GM-3	730.44	26.23	100.95	704.21
GM-4	731.46	27.26	145.15	704.20
GM-5	731.29	26.92	100.99	704.37
GM-7R	735.61	30.95	91.36	704.66
GM-9	724.07	20.37	99.99	703.70
GM-11	723.71	19.92	100.04	703.79
GM-13	723.82	20.39	100.31	703.43
GM-14	723.50	20.18	148.80	703.32
GM-15	725.23	22.02	98.69	703.21
GM-19D	730.73	25.41	151.41	705.32
GM-20D	727.26	22.55	99.89	704.71
GM-39	730.95	23.25	116.65	707.70
GM-40	727.04	21.67	149.40	705.37
GM-41	733.65	27.12	116.92	706.53
GM-42	729.16	23.99	150.05	705.17
GM-54	730.29	23.83	79.71	706.46
GM-56	719.52	16.19	85.24	703.33
GM-58	735.46	28.54	81.51	706.92
GM-61	732.23	25.07	78.31	707.16
GM-65D	723.54	21.16	95.16	702.38
GM-67D	732.19	24.94	79.20	707.25
GM-68D	732.27	25.35	74.30	706.92
GM-69	732.08	26.04	99.08	706.04
GM-70	737.19	30.04	81.51	707.15
GM-73	736.97	29.56	95.50	707.41
GM-74D	732.04	25.03	78.77	707.01
GM-75D	737.68	30.25	98.36	707.43
GM-76D	738.94	31.09	79.82	707.85
GM-77D	740.93	33.77	86.38	707.16
GM-82	732.14	25.77	95.30	706.37
GM-83D	725.77	20.29	120.60	705.48
GM-84	739.92	33.79	106.87	706.13
HR-10	742.81	34.29	126.20	708.52
HR-12	742.64	34.00	131.57	708.64
HR-13	735.03	27.51	86.02	707.52
HR-14	731.63	24.27	92.52	707.36
HR-15	733.74	26.57	102.84	707.17
M73C	716.55	13.27	192.40	703.28
MT576M	751.46	42.62	NM	708.84
MT596M	757.73	47.88	NM	709.85

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Table 8. Groundwater Level Measurements Collected During September 20 and 21, 2010, Motors Liquidation Company, Moraine, Ohio.

Well	Measuring Point Elevation	Depth-to-Water (feet)	Total Depth (feet)	Groundwater Elevation (AMSL)
Production and Fire Wells				
DN-13 (County Well)	727.78	>90.05	NM	<637.73
11B	742.56	35.19	NM	707.37
12A	742.39	34.78	NM	707.61
31	734.05	26.09	NM	707.96
34	733.46	26.45	NM	707.01
39	732.07	24.31	NM	707.76
A	739.00	29.50	NM	709.50
FW-1A	739.89	32.12	NM	707.77
FW-2	737.48	30.03	NM	707.45
FW-3	739.26	31.90	NM	707.36
FW-4	731.62	26.09	NM	705.53
Stream Gauge*				
SG1	747.64	NM	NA	NA
SG2	709.95	Dry	NA	NA
SG3	718.45	6.93	NA	711.52
SG4	714.78	6.14	NA	708.64
SG5	711.10	NM	NA	NA
SG6	723.21	16.04	NA	707.17
SG7	731.55	Dry	NA	NA
IRZ Wells				
RZ-3MM	726.92	21.85	47.97	705.07
RZ-4A	725.71	20.59	56.15	705.12
RZ-4D	727.07	21.98	54.90	705.09
RZ-4L	727.54	22.75	58.98	704.79
Moraine City				
MW-1	715.53	NM	NM	NA
MW-4	707.19	7.81	35.24	699.38
MW-5	709.34	8.32	29.80	701.02
MW-9	712.85	13.42	71.38	699.43

Measuring point is to top of the well casing or surveyed measuring point.
Groundwater elevations are reported in feet above mean sea level (AMSL).
Groundwater levels were measured on September 20 and 21, 2010 using an electronic water level indicator (more than or
was used and groundwater elevations reflect a calibration factor).
Groundwater level measurements are reported in feet below the measuring point.
NS - Not Surveyed.
NM - Not Measured.
NA - Not Applicable.
*Surface water measurement.
Dry - Low stream level, no measurable water.

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Table 9. Summary of Precipitation Measurements Recorded by the National Weather Service, During 2010 - Dayton, Ohio.

Date	Actual Precipitation	Average Precipitation	Departure from Average
January	1.47	2.56	1.09 below
February	1.49	2.12	0.63 below
March	4.12	3.23	0.89 above
April	2.13	3.83	1.70 below
May	5.30	4.26	1.04 above
June	5.53	4.10	1.43 above
July	2.75	3.77	1.02 below
August	1.73	3.09	1.36 below
September	1.65	2.79	1.14 below
October	1.13	2.54	1.41 below
November	4.85	3.07	1.78 above
December	1.45	2.85	1.40 below
2010 Total	**33.60**	**38.21**	**4.61 below average**

All precipitation measurements are reported in inches.
Information obtained from the NOAA Website (http://www7.ncdc.noaa.gov/IPS/lcd/lcd.html)

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Table 10. Vertical Gradients for Shallow/Deep Well Pairs in 2010, Motors Liquidation Company, Moraine, Ohio.

	Vertical Gradients September 20 and 21, 2010	
Upper/Lower Wells	**Direction**	**Gradient (ft/ft)**
Upgradient		
HR-9/HR-10	D	-0.0002
HR-11/HR-12	NA	0.0000
On-Site		
W-3-N/HR-15	D	-0.0014
W-4-N/HR-14	U	0.0134
HR-3/HR-13	U	0.0024
GM-2/GM-1	D	-0.0033
GM-6/GM-3	D	-0.0007
4S/GM-5	D	-0.0025
GM-68S/GM-68D	U	0.0013
GM-75S/GM-75D	U	0.0065
Former Oil House Area		
GM-23/GM-27	U	0.0031
GM-23/GM-39	U	0.0006
Off-Site/Downgradient		
GM-10/GM-9	D	-0.0034
GM-16/GM-15	D	-0.0198
GM-18/GM-13	D	-0.0136
GM-17/GM-11	D	-0.0074
GM-55/GM-56	D	-0.0009
GM-65S/GM-65D	U	0.0007

D - Downward Gradient (-).
U - Upward Gradient (+).
NA - Not Applicable.
ft/ft - Feet per Feet.

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Table 11. Corrective Action Monitoring Results for Comparison to Remediation Target Levels (RTLs), Motors Liquidation Company, Moraine, Ohio.

			2010					2009			1999				2010			2009			1999		
Aquifer	Remediation Zone	Chemical	# Analytes	# Detects	Min Value (mg/l)	Mean Value (mg/L)	Max Value (mg/l)	Min Value (mg/l)	Mean Value (mg/L)	Max Value (mg/l)	Min Value (mg/l)	Mean Value (mg/L)	Max Value (mg/l)	RTL (mg/L)	Ratio: Min 2010 Value to RTL	Ratio: Mean 2010 Value to RTL	Ratio Max 2010 Value to RTL	Ratio: Min 2009 Value to RTL	Ratio: Mean 2009 Value to RTL	Ratio Max 2009 Value to RTL	Ratio: Min 1999 Value to RTL	Ratio: Mean 1999 Value to RTL	Ratio Max 1999 Value to RTL
Shallow	AOI 7 Shallow	1,1-Dichloroethene	2	0	1.0E-02	1.1E-02	1.1E-02	9.5E-04	1.8E-03	2.4E-03	1.3E-03	6.5E-01	5.1E+00	7.0E-01	1.4E-02	1.5E-02	1.6E-02	1.4E-03	2.6E-03	3.4E-03	1.9E-03	9.3E-01	**7.3E+00**
Shallow	AOI 7 Shallow	cis-1,2-Dichloroethene	2	2	4.9E-01	5.8E-01	6.6E-01	6.0E-01	8.4E-01	1.1E+00	2.5E-03	5.2E+00	9.7E+00	7.0E+00	7.0E-02	8.2E-02	9.4E-02	8.6E-02	1.2E-01	1.6E-01	3.6E-04	7.4E-01	**1.4E+00**
Shallow	AOI 7 Shallow	Tetrachloroethene	2	2	1.7E-02	3.4E-02	5.0E-02	1.5E-02	1.8E-02	2.1E-02	9.5E-03	4.0E+00	7.1E+00	5.0E-01	3.4E-02	6.7E-02	1.0E-01	3.0E-02	3.6E-02	4.2E-02	1.9E-02	**8.0E+00**	**1.4E+01**
Shallow	AOI 7 Shallow	Trichloroethene	2	2	1.7E-02	1.7E-01	3.3E-01	8.3E-03	2.5E-01	3.7E-01	2.5E-03	1.4E+00	5.1E+00	5.0E-01	3.4E-02	3.5E-01	6.6E-01	1.7E-02	5.0E-01	7.4E-01	5.0E-03	**2.8E+00**	**1.0E+01**
Shallow	AOI 7 Shallow	Vinyl Chloride	2	2	5.9E-02	2.8E-01	5.0E-01	7.0E-02	4.3E-01	1.1E+00	1.0E-03	1.5E+00	2.6E+00	2.0E-01	3.0E-01	**1.4E+00**	**2.5E+00**	3.5E-01	**2.2E+00**	**5.5E+00**	5.0E-03	**7.5E+00**	**1.3E+01**
Shallow	Zone S1	1,1-Dichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	9.5E-05	9.5E-05	9.5E-05	5.0E-04	5.0E-04	5.0E-04	6.3E-01	7.9E-04	7.9E-04	7.9E-04	1.5E-04	1.5E-04	1.5E-04	7.9E-04	7.9E-04	7.9E-04
Shallow	Zone S1	cis-1,2-Dichloroethene	1	1	2.1E-03	2.1E-03	2.1E-03	3.9E-04	1.0E-03	2.3E-03	1.8E-01	1.8E-01	1.8E-01	6.3E+00	3.3E-04	3.3E-04	3.3E-04	6.2E-05	1.6E-04	3.7E-04	2.9E-02	2.9E-02	2.9E-02
Shallow	Zone S1	Tetrachloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	1.5E-04	1.5E-04	1.5E-04	3.2E-01	3.2E-01	3.2E-01	4.5E-01	1.1E-03	1.1E-03	1.1E-03	3.3E-04	3.3E-04	3.3E-04	7.1E-01	7.1E-01	7.1E-01
Shallow	Zone S1	Trichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	4.5E-04	4.9E-04	5.8E-04	7.7E-01	7.7E-01	7.7E-01	4.5E-01	1.1E-03	1.1E-03	1.1E-03	1.0E-03	1.1E-03	1.3E-03	**1.7E+00**	**1.7E+00**	**1.7E+00**
Shallow	Zone S1	Vinyl Chloride	1	1	2.2E-03	2.2E-03	2.2E-03	9.5E-04	1.7E-03	3.3E-03	3.2E-03	3.2E-03	3.2E-03	1.8E-01	1.2E-02	1.2E-02	1.2E-02	5.3E-03	9.4E-03	1.8E-02	1.8E-02	1.8E-02	1.8E-02
Shallow	Zone S1 to S2	1,1-Dichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	9.5E-05	9.5E-05	9.5E-05	5.0E-04	5.0E-04	5.0E-04	1.3E-01	3.8E-03	3.8E-03	3.8E-03	7.3E-04	7.3E-04	7.3E-04	3.8E-03	3.8E-03	3.8E-03
Shallow	Zone S1 to S2	cis-1,2-Dichloroethene	1	1	2.1E-03	2.1E-03	2.1E-03	3.9E-04	1.0E-03	2.3E-03	1.8E-01	2.2E-01	2.6E-01	1.3E+00	1.6E-03	1.6E-03	1.6E-03	3.0E-04	7.7E-04	1.8E-03	1.4E-01	1.7E-01	2.0E-01
Shallow	Zone S1 to S2	Tetrachloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	1.5E-04	1.5E-04	1.5E-04	2.1E-01	2.6E-01	3.2E-01	9.5E-02	5.3E-03	5.3E-03	5.3E-03	1.6E-03	1.6E-03	1.6E-03	**2.2E+00**	**2.7E+00**	**3.4E+00**
Shallow	Zone S1 to S2	Trichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	4.5E-04	4.9E-04	5.8E-04	4.7E-01	6.2E-01	7.7E-01	9.5E-02	5.3E-03	5.3E-03	5.3E-03	4.7E-03	5.2E-03	6.1E-03	**4.9E+00**	**6.5E+00**	**8.1E+00**
Shallow	Zone S1 to S2	Vinyl Chloride	1	1	2.2E-03	2.2E-03	2.2E-03	9.5E-04	1.7E-03	3.3E-03	5.0E-04	1.9E-03	3.2E-03	3.8E-02	5.8E-02	5.8E-02	5.8E-02	2.5E-02	4.5E-02	8.7E-02	1.3E-02	5.0E-02	8.4E-02
Shallow	Zone S2	1,1-Dichloroethene	0	0	NS	NS	NS	NS	NS	NS	5.0E-04	1.0E-03	2.5E-03	7.0E-02	NA	NA	NA	NA	NA	NA	7.1E-03	1.4E-02	3.6E-02
Shallow	Zone S2	cis-1,2-Dichloroethene	0	0	NS	NS	NS	NS	NS	NS	2.5E-03	6.8E-02	2.6E-01	7.0E-01	NA	NA	NA	NA	NA	NA	3.6E-03	9.7E-02	3.7E-01
Shallow	Zone S2	Tetrachloroethene	0	0	NS	NS	NS	NS	NS	NS	1.3E-03	6.9E-02	2.1E-01	5.0E-02	NA	NA	NA	NA	NA	NA	2.6E-02	**1.4E+00**	**4.2E+00**
Shallow	Zone S2	Trichloroethene	0	0	NS	NS	NS	NS	NS	NS	2.5E-03	1.4E-01	4.7E-01	5.0E-02	NA	NA	NA	NA	NA	NA	5.0E-02	**2.8E+00**	**9.4E+00**
Shallow	Zone S2	Vinyl Chloride	0	0	NS	NS	NS	NS	NS	NS	5.0E-04	6.3E-04	1.0E-03	2.0E-02	NA	NA	NA	NA	NA	NA	2.5E-02	3.2E-02	5.0E-02
Shallow	Zone S2 to S3	1,1-Dichloroethene	2	1	5.0E-04	7.4E-04	9.7E-04	9.5E-05	5.5E-04	1.0E-03	5.0E-04	7.9E-04	2.5E-03	6.3E-02	7.9E-03	1.2E-02	1.5E-02	1.5E-03	8.7E-03	1.6E-02	7.9E-03	1.3E-02	4.0E-02
Shallow	Zone S2 to S3	cis-1,2-Dichloroethene	2	2	9.1E-03	4.1E-02	7.3E-02	9.1E-03	4.2E-02	7.4E-02	5.0E-04	4.1E-02	2.6E-01	6.3E-01	1.4E-02	6.5E-02	1.2E-01	1.4E-02	6.7E-02	1.2E-01	7.9E-04	6.5E-02	4.1E-01
Shallow	Zone S2 to S3	Tetrachloroethene	2	2	3.1E-02	3.4E-02	3.7E-02	3.3E-02	3.6E-02	3.9E-02	1.3E-03	5.3E-02	2.1E-01	4.5E-02	6.9E-01	7.6E-01	8.2E-01	7.3E-01	8.0E-01	8.7E-01	2.9E-02	**1.2E+00**	**4.7E+00**
Shallow	Zone S2 to S3	Trichloroethene	2	2	2.0E-02	7.0E-02	1.2E-01	2.3E-02	7.2E-02	1.2E-01	2.5E-03	8.9E-02	4.7E-01	4.5E-02	4.4E-01	**1.6E+00**	**2.7E+00**	5.1E-01	**1.6E+00**	**2.7E+00**	5.6E-02	**2.0E+00**	**1.0E+01**
Shallow	Zone S2 to S3	Vinyl Chloride	2	1	5.0E-04	2.4E-03	4.3E-03	1.1E-04	2.4E-03	4.6E-03	5.0E-04	5.7E-04	1.0E-03	1.8E-02	2.8E-02	1.3E-01	2.4E-01	6.1E-03	1.3E-01	2.6E-01	2.8E-02	3.2E-02	5.6E-02
Shallow	Zone S3	1,1-Dichloroethene	2	0	5.0E-04	1.7E-03	2.9E-03	9.5E-05	3.1E-04	7.5E-04	5.0E-04	2.3E-03	3.9E-03	4.9E-02	1.0E-02	3.5E-02	5.9E-02	1.9E-03	6.3E-03	1.5E-02	1.0E-02	4.7E-02	8.0E-02
Shallow	Zone S3	cis-1,2-Dichloroethene	2	2	3.1E-03	3.5E-03	3.9E-03	7.0E-04	8.3E-03	1.5E-02	2.6E-03	4.4E-02	6.6E-02	4.9E-01	6.3E-03	7.1E-03	8.0E-03	1.4E-03	1.7E-02	3.1E-02	5.3E-03	9.0E-02	1.3E-01
Shallow	Zone S3	Tetrachloroethene	2	1	5.0E-04	7.3E-02	1.5E-01	1.5E-04	2.5E-02	1.1E-01	5.0E-04	1.4E-03	2.5E-03	3.5E-02	1.4E-02	**2.1E+00**	**4.1E+00**	4.3E-03	7.1E-01	**3.1E+00**	1.4E-02	4.0E-02	7.1E-02
Shallow	Zone S3	Trichloroethene	2	2	3.2E-03	6.9E-02	1.4E-01	7.0E-04	2.7E-02	1.2E-01	3.2E-03	1.6E-01	4.6E-01	3.5E-02	9.1E-02	**2.0E+00**	**3.9E+00**	2.0E-02	7.7E-01	**3.4E+00**	9.1E-02	**4.6E+00**	**1.3E+01**
Shallow	Zone S3	Vinyl Chloride	2	1	2.9E-03	3.3E-03	3.6E-03	5.5E-04	5.0E-03	1.4E-02	5.0E-04	1.5E-03	3.0E-03	1.4E-02	2.1E-01	2.3E-01	2.6E-01	3.9E-02	3.6E-01	1.0E+00	3.6E-02	1.1E-01	2.1E-01
Shallow	Zone S3 to GM-10/GM-52	1,1-Dichloroethene	8	0	5.0E-04	1.3E-03	2.5E-03	9.5E-05	2.5E-04	7.5E-04	5.0E-04	1.3E-03	3.9E-03	3.5E-02	1.4E-02	3.8E-02	7.1E-02	2.7E-03	7.1E-03	2.1E-02	1.4E-02	3.7E-02	1.1E-01
Shallow	Zone S3 to GM-10/GM-52	cis-1,2-Dichloroethene	8	7	5.0E-04	1.5E-02	5.1E-02	8.5E-05	1.1E-02	6.1E-02	5.0E-04	2.8E-02	6.6E-02	3.5E-01	1.4E-03	4.2E-02	1.5E-01	2.4E-04	3.1E-02	1.7E-01	1.4E-03	8.0E-02	1.9E-01
Shallow	Zone S3 to GM-10/GM-52	Tetrachloroethene	8	7	3.8E-04	6.1E-02	1.3E-01	1.5E-04	3.4E-02	1.1E-01	5.0E-04	1.7E-02	8.1E-02	2.5E-02	1.5E-02	**2.5E+00**	**5.2E+00**	6.0E-03	**1.4E+00**	**4.4E+00**	2.0E-02	6.8E-01	**3.2E+00**
Shallow	Zone S3 to GM-10/GM-52	Trichloroethene	8	7	5.0E-04	4.9E-02	1.4E-01	8.5E-05	3.0E-02	1.2E-01	5.0E-04	8.4E-02	4.6E-01	2.5E-02	2.0E-02	**1.9E+00**	**5.6E+00**	3.4E-03	**1.2E+00**	**4.8E+00**	2.0E-02	**3.4E+00**	**1.8E+01**
Shallow	Zone S3 to GM-10/GM-52	Vinyl Chloride	8	4	3.9E-04	1.7E-03	2.5E-03	1.1E-04	2.6E-03	1.4E-02	5.0E-04	1.8E-03	8.4E-03	1.0E-02	3.9E-02	1.7E-01	2.5E-01	1.1E-02	2.6E-01	**1.4E+00**	5.0E-02	1.8E-01	8.4E-01
Shallow	GM-10/GM-52	1,1-Dichloroethene	2	0	1.7E-03	1.9E-03	2.0E-03	2.4E-04	2.4E-04	2.4E-04	5.0E-04	5.0E-04	5.0E-04	2.8E-02	6.1E-02	6.6E-02	7.1E-02	8.6E-03	8.6E-03	8.6E-03	1.8E-02	1.8E-02	1.8E-02
Shallow	GM-10/GM-52	cis-1,2-Dichloroethene	2	2	1.6E-03	1.7E-03	1.8E-03	1.5E-03	1.5E-03	1.5E-03	5.0E-04	5.0E-04	5.0E-04	2.8E-01	5.7E-03	6.1E-03	6.4E-03	5.4E-03	5.4E-03	5.4E-03	1.8E-03	1.8E-03	1.8E-03
Shallow	GM-10/GM-52	Tetrachloroethene	2	2	9.0E-02	9.2E-02	9.4E-02	9.4E-02	9.4E-02	9.4E-02	5.0E-04	5.0E-04	5.0E-04	2.0E-02	**4.5E+00**	**4.6E+00**	**4.7E+00**	**4.7E+00**	**4.7E+00**	**4.7E+00**	2.5E-02	2.5E-02	2.5E-02
Shallow	GM-10/GM-52	Trichloroethene	2	2	4.2E-02	4.6E-02	5.0E-02	4.3E-02	4.3E-02	4.3E-02	1.4E-02	1.4E-02	1.4E-02	2.0E-02	**2.1E+00**	**2.3E+00**	**2.5E+00**	**2.2E+00**	**2.2E+00**	**2.2E+00**	7.0E-01	7.0E-01	7.0E-01
Shallow	GM-10/GM-52	Vinyl Chloride	2	0	1.7E-03	1.9E-03	2.0E-03	2.8E-04	2.8E-04	2.8E-04	5.0E-04	5.0E-04	5.0E-04	8.0E-03	2.1E-01	2.3E-01	2.5E-01	3.5E-02	3.5E-02	3.5E-02	6.3E-02	6.3E-02	6.3E-02
Shallow	POC Shallow	1,1-Dichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	9.5E-05	9.5E-05	9.5E-05	5.0E-04	5.0E-04	5.0E-04	7.0E-03	7.1E-02	7.1E-02	7.1E-02	1.4E-02	1.4E-02	1.4E-02	7.1E-02	7.1E-02	7.1E-02
Shallow	POC Shallow	cis-1,2-Dichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	8.5E-05	8.5E-05	8.5E-05	5.0E-04	5.0E-04	5.0E-04	7.0E-02	7.1E-03	7.1E-03	7.1E-03	1.2E-03	1.2E-03	1.2E-03	7.1E-03	7.1E-03	7.1E-03
Shallow	POC Shallow	Tetrachloroethene	1	1	1.6E-03	1.6E-03	1.6E-03	1.6E-03	1.6E-03	1.6E-03	5.0E-04	5.0E-04	5.0E-04	5.0E-03	3.2E-01	3.2E-01	3.2E-01	3.2E-01	3.2E-01	3.2E-01	1.0E-01	1.0E-01	1.0E-01
Shallow	POC Shallow	Trichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	8.5E-05	8.5E-05	8.5E-05	5.0E-04	5.0E-04	5.0E-04	5.0E-03	1.0E-01	1.0E-01	1.0E-01	1.7E-02	1.7E-02	1.7E-02	1.0E-01	1.0E-01	1.0E-01
Shallow	POC Shallow	Vinyl Chloride	1	0	5.0E-04	5.0E-04	5.0E-04	1.1E-04	1.1E-04	1.1E-04	5.0E-04	5.0E-04	5.0E-04	2.0E-03	2.5E-01	2.5E-01	2.5E-01	5.5E-02	5.5E-02	5.5E-02	2.5E-01	2.5E-01	2.5E-01

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Table 11. Corrective Action Monitoring Results for Comparison to Remediation Target Levels (RTLs), Motors Liquidation Company, Moraine, Ohio.

			2010					2009			1999				2010			2009			1999		
Aquifer	Remediation Zone	Chemical	# Analytes	# Detects	Min Value (mg/l)	Mean Value (mg/L)	Max Value (mg/l)	Min Value (mg/l)	Mean Value (mg/L)	Max Value (mg/l)	Min Value (mg/l)	Mean Value (mg/L)	Max Value (mg/l)	RTL (mg/L)	Ratio: Min 2010 Value to RTL	Ratio: Mean 2010 Value to RTL	Ratio Max 2010 Value to RTL	Ratio: Min 2009 Value to RTL	Ratio: Mean 2009 Value to RTL	Ratio Max 2009 Value to RTL	Ratio: Min 1999 Value to RTL	Ratio: Mean 1999 Value to RTL	Ratio Max 1999 Value to RTL
Deep	AOI 7 Deep	1,1-Dichloroethene	2	0	1.0E-02	1.1E-02	1.1E-02	9.5E-04	1.8E-03	2.4E-03	1.3E-03	6.5E-01	5.1E+00	2.3E-01	4.3E-02	4.6E-02	4.8E-02	4.1E-03	7.8E-03	1.0E-02	5.7E-03	**2.8E+00**	**2.2E+01**
Deep	AOI 7 Deep	cis-1,2-Dichloroethene	2	2	4.9E-01	5.8E-01	6.6E-01	6.0E-01	8.4E-01	1.1E+00	2.5E-03	5.2E+00	9.7E+00	2.3E+00	2.1E-01	2.5E-01	2.9E-01	2.6E-01	3.7E-01	4.8E-01	1.1E-03	**2.3E+00**	**4.2E+00**
Deep	AOI 7 Deep	Tetrachloroethene	2	2	1.7E-02	3.4E-02	5.0E-02	1.5E-02	1.8E-02	2.1E-02	9.5E-03	4.0E+00	7.1E+00	1.7E-01	1.0E-01	2.0E-01	2.9E-01	8.8E-02	1.1E-01	1.2E-01	5.6E-02	**2.4E+01**	**4.2E+01**
Deep	AOI 7 Deep	Trichloroethene	2	2	1.7E-02	1.7E-01	3.3E-01	8.3E-03	2.5E-01	3.7E-01	2.5E-03	1.4E+00	5.1E+00	1.7E-01	1.0E-01	**1.0E+00**	**1.9E+00**	4.9E-02	**1.5E+00**	**2.2E+00**	1.5E-02	**8.2E+00**	**3.0E+01**
Deep	AOI 7 Deep	Vinyl Chloride	2	2	5.9E-02	2.8E-01	5.0E-01	7.0E-02	4.3E-01	1.1E+00	1.0E-03	1.5E+00	2.6E+00	6.7E-02	8.8E-01	**4.2E+00**	**7.5E+00**	**1.0E+00**	**6.4E+00**	**1.6E+01**	1.5E-02	**2.2E+01**	**3.9E+01**
Deep	GM-40/41/54	1,1-Dichloroethene	2	0	1.3E-03	1.9E-03	2.5E-03	4.8E-04	4.8E-04	4.8E-04	NS	NS	NS	6.1E-02	2.1E-02	3.1E-02	4.1E-02	7.9E-03	7.9E-03	7.9E-03	NA	NA	NA
Deep	GM-40/41/54	cis-1,2-Dichloroethene	2	0	1.3E-03	1.9E-03	2.5E-03	4.3E-04	4.3E-04	4.3E-04	NS	NS	NS	6.1E-01	2.1E-03	3.1E-03	4.1E-03	7.0E-04	7.0E-04	7.0E-04	NA	NA	NA
Deep	GM-40/41/54	Tetrachloroethene	2	2	9.2E-02	1.1E-01	1.2E-01	1.2E-01	1.2E-01	1.2E-01	NS	NS	NS	4.3E-02	**2.1E+00**	**2.5E+00**	**2.8E+00**	**2.8E+00**	**2.8E+00**	**2.8E+00**	NA	NA	NA
Deep	GM-40/41/54	Trichloroethene	2	2	2.2E-03	2.3E-03	2.4E-03	2.9E-03	2.9E-03	2.9E-03	NS	NS	NS	4.3E-02	5.1E-02	5.3E-02	5.6E-02	6.7E-02	6.7E-02	6.7E-02	NA	NA	NA
Deep	GM-40/41/54	Vinyl Chloride	2	0	1.3E-03	1.9E-03	2.5E-03	5.5E-04	5.5E-04	5.5E-04	NS	NS	NS	1.7E-02	7.6E-02	1.1E-01	1.5E-01	3.2E-02	3.2E-02	3.2E-02	NA	NA	NA
Deep	GM-42	1,1-Dichloroethene	0	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.3E-02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep	GM-42	cis-1,2-Dichloroethene	0	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.3E-01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep	GM-42	Tetrachloroethene	0	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.3E-02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep	GM-42	Trichloroethene	0	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.3E-02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep	GM-42	Vinyl Chloride	0	0	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.3E-03	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep	Zone D1	1,1-Dichloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	9.5E-05	9.5E-05	9.5E-05	5.0E-04	5.0E-04	5.0E-04	7.0E-03	7.1E-02	7.1E-02	7.1E-02	1.4E-02	1.4E-02	1.4E-02	7.1E-02	7.1E-02	7.1E-02
Deep	Zone D1	cis-1,2-Dichloroethene	1	1	2.4E-03	2.4E-03	2.4E-03	2.1E-03	2.1E-03	2.1E-03	1.2E-03	1.2E-03	1.2E-03	7.0E-02	3.4E-02	3.4E-02	3.4E-02	3.0E-02	3.0E-02	3.0E-02	1.7E-02	1.7E-02	1.7E-02
Deep	Zone D1	Tetrachloroethene	1	0	5.0E-04	5.0E-04	5.0E-04	1.5E-04	1.5E-04	1.5E-04	5.0E-04	5.0E-04	5.0E-04	5.0E-03	1.0E-01	1.0E-01	1.0E-01	3.0E-02	3.0E-02	3.0E-02	1.0E-01	1.0E-01	1.0E-01
Deep	Zone D1	Trichloroethene	1	1	9.8E-04	9.8E-04	9.8E-04	1.7E-03	1.7E-03	1.7E-03	1.4E-02	1.4E-02	1.4E-02	5.0E-03	2.0E-01	2.0E-01	2.0E-01	3.4E-01	3.4E-01	3.4E-01	**2.8E+00**	**2.8E+00**	**2.8E+00**
Deep	Zone D1	Vinyl Chloride	1	1	9.9E-03	9.9E-03	9.9E-03	1.4E-02	1.4E-02	1.4E-02	1.5E-03	1.5E-03	1.5E-03	2.0E-03	**5.0E+00**	**5.0E+00**	**5.0E+00**	**7.0E+00**	**7.0E+00**	**7.0E+00**	7.5E-01	7.5E-01	7.5E-01
Deep	Zone D2	1,1-Dichloroethene	0	0	NS	NS	NS	NS	NS	NS	5.0E-04	5.0E-04	5.0E-04	1.3E-02	NA	NA	NA	NA	NA	NA	3.8E-02	3.8E-02	3.8E-02
Deep	Zone D2	cis-1,2-Dichloroethene	0	0	NS	NS	NS	NS	NS	NS	5.0E-04	8.0E-04	1.1E-03	1.3E-01	NA	NA	NA	NA	NA	NA	3.8E-03	6.2E-03	8.5E-03
Deep	Zone D2	Tetrachloroethene	0	0	NS	NS	NS	NS	NS	NS	1.2E-03	1.6E-03	2.0E-03	9.2E-03	NA	NA	NA	NA	NA	NA	1.3E-01	1.7E-01	2.2E-01
Deep	Zone D2	Trichloroethene	0	0	NS	NS	NS	NS	NS	NS	7.5E-03	1.9E-02	3.1E-02	9.2E-03	NA	NA	NA	NA	NA	NA	8.2E-01	**2.1E+00**	**3.4E+00**
Deep	Zone D2	Vinyl Chloride	0	0	NS	NS	NS	NS	NS	NS	5.0E-04	5.0E-04	5.0E-04	3.7E-03	NA	NA	NA	NA	NA	NA	1.4E-01	1.4E-01	1.4E-01
Deep	POC Deep	1,1-Dichloroethene	3	0	5.0E-04	5.0E-04	5.0E-04	9.5E-05	9.5E-05	9.5E-05	5.0E-04	5.0E-04	5.0E-04	7.0E-03	7.1E-02	7.1E-02	7.1E-02	1.4E-02	1.4E-02	1.4E-02	7.1E-02	7.1E-02	7.1E-02
Deep	POC Deep	cis-1,2-Dichloroethene	3	1	5.0E-04	6.7E-04	1.0E-03	8.5E-05	3.9E-04	1.0E-03	5.0E-04	1.8E-03	4.3E-03	7.0E-02	7.1E-03	9.5E-03	1.4E-02	1.2E-03	5.6E-03	1.4E-02	7.1E-03	2.6E-02	6.1E-02
Deep	POC Deep	Tetrachloroethene	3	2	5.0E-04	1.4E-03	2.2E-03	1.5E-04	1.3E-03	2.0E-03	5.0E-04	8.3E-04	1.5E-03	5.0E-03	1.0E-01	2.8E-01	4.4E-01	3.0E-02	2.6E-01	4.0E-01	1.0E-01	1.7E-01	3.0E-01
Deep	POC Deep	Trichloroethene	3	3	6.5E-03	1.5E-02	3.1E-02	6.5E-03	1.7E-02	3.7E-02	5.0E-04	6.4E-03	1.5E-02	5.0E-03	**1.3E+00**	**2.9E+00**	**6.2E+00**	**1.3E+00**	**3.4E+00**	**7.4E+00**	1.0E-01	**1.3E+00**	**3.0E+00**
Deep	POC Deep	Vinyl Chloride	3	0	5.0E-04	5.0E-04	5.0E-04	1.1E-04	1.1E-04	1.1E-04	5.0E-04	5.0E-04	5.0E-04	2.0E-03	2.5E-01	2.5E-01	2.5E-01	5.5E-02	5.5E-02	5.5E-02	2.5E-01	2.5E-01	2.5E-01

BOLD indicates concentration exceeds RTL.

NA Not Applicable.

NS Not Sampled.

RTL Remediation Target Levels developed by Environ and based on Groundwater Flow Model updated in 2008 to reflect pumping conditions without interim measures (ARCADIS, 2008).

ARCADIS

Table 12. Source Concentrations and Estimated Contributions to Receptor Points for In-Place Waste Management Units, Motors Liquidation Company, Moraine, Ohio.

			Unit Maximum Downgradient Groundwater Concentration (mg/L)					Unit Estimated Contributions to Groundwater Concentrations (mg/L) at the West Carrollton Receptor Point (Pumping Scenario 1a - Table E-1)					Unit Estimated Contributions to Groundwater Concentrations (mg/L) at the Great Miami River Receptor Point (Pumping Scenario 1a - Table E-1)				
	Unit	MCL	Landfill L1	Landfill L2	Landfill L3	North Settling Lagoon	South Settling Lagoon	Landfill L1	Landfill L2	Landfill L3	North Settling Lagoon	South Settling Lagoon	Landfill L1	Landfill L2	Landfill L3	North Settling Lagoon	South Settling Lagoon
Volatile Organic Compound																	
1,1,1-Trichloroethane	mg/L	0.2	ND	0.00041	0.00041	0.00041	0.0014	NA	2.55E-06	6.01E-06	7.67E-06	3.01E-05	NA	1.12E-07	4.18E-07	6.03E-07	5.95E-07
1,1-Dichloroethane	mg/L	NA	0.0062	0.0056	0.0056	0.0021	0.0016	4.35E-07	3.48E-05	8.21E-05	3.93E-05	3.44E-05	4.1912E-09	1.53E-06	5.71E-06	3.09E-06	6.80E-07
1,1-Dichloroethene	mg/L	0.007	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/L	0.005	0.0011	ND	ND	ND	ND	7.72E-08	NA	NA	NA	NA	7.436E-10	NA	NA	NA	NA
cis-1,2-Dichloroethene	mg/L	0.07	0.0049	0.0079	0.0079	0.056	0.0091	3.44E-07	4.91E-05	1.16E-04	1.05E-03	1.96E-04	3.3124E-09	2.16E-06	8.06E-06	8.23E-05	3.87E-06
Ethylbenzene	mg/L	0.7	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/L	0.005	0.00044	0.00067	0.00067	0.00067	0.031	3.09E-08	4.17E-06	9.83E-06	1.25E-05	6.67E-04	2.9744E-10	1.84E-07	6.83E-07	9.85E-07	1.32E-05
Toluene	mg/L	1	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	mg/L	0.1	0.00089	0.00051	0.00051	0.00079	0.0015	6.25E-08	3.17E-06	7.48E-06	1.48E-05	3.23E-05	6.0164E-10	1.40E-07	5.20E-07	1.16E-06	6.38E-07
Trichloroethene	mg/L	0.005	0.0066	0.013	0.013	0.013	0.02	4.63E-07	8.09E-05	1.91E-04	2.43E-04	4.30E-04	4.4616E-09	3.56E-06	1.33E-05	1.91E-05	8.50E-06
Vinyl chloride	mg/L	0.002	0.0025	ND	ND	0.0024	ND	1.76E-07	NA	NA	4.49E-05	NA	1.69E-09	NA	NA	3.53E-06	NA
Xylene (total)	mg/L	10	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

mg/L - micrograms per liter
ND - non detect
NA - not applicable
Landfill L1 source area characterization wells (GM-2, GM-6, 4S)
Landfill L2 source area characterization wells (W-4-N, HR-2, HR-3)
Landfill L3 source area characterization wells (W-4-N, HR-2, HR-4)
North Settling Lagoon source characterization wells (W-2-N, W-3-N, W-4-N)
South Settling Lagoon source characterization wells (W-2-S, W-3-S, W-4-S)

West Carrollton Well Field Source Reduction Factor (average of three wells) from Table E-1:
Landfill L1 = 7.02E-05
Landfill L2 = 6.22E-03
Landfill L3 = 1.47E-02
North Settling Lagoon = 1.87E-02
South Settling Lagoon = 2.15E-02

The Great Miami River Source Reduction Factor from Table E-1:
Landfill L1 = 6.76E-07
Landfill L2 = 2.74E-04
Landfill L3 = 1.02E-03
North Settling Lagoon = 1.47E-03
South Settling Lagoon = 4.25E-04

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\OH29411-01.dwg LAYOUT: FIG 1 SITE LAYOUT SAVED: 2/11/2011 3:22 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/11/2011 3:23 PM BY: SMITH, BOB
XREFS: PROJECTNAME: ----
MLCBASE MAP 2010

LEGEND

- PROPERTY BOUNDARY
- RIVER LEVEE
- FORMER BUILDING FOOTPRINT
- SURFACE WATER FEATURE

N

0 200 1000ft

MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

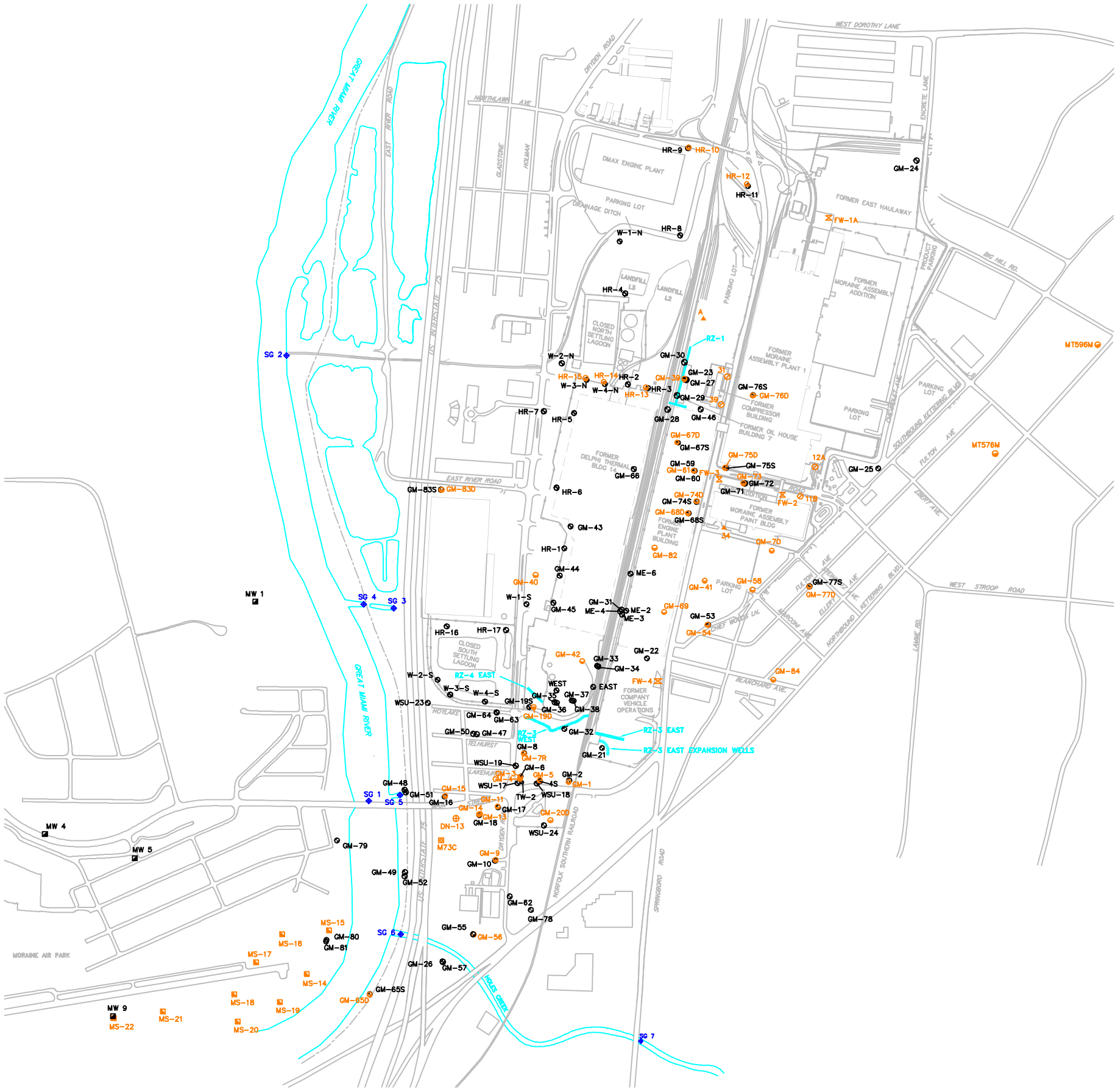
OH000294.2011

SITE LAYOUT

ARCADIS

FIGURE
1

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\OH29411-01.dwg LAYOUT: FIG 2 SITEWIDE-C-M-ALL WELLS SAVED: 2/11/2011 3:22 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/11/2011 3:24 PM BY: SMITH, BOB
XREFS: PROJECTNAME: —
MLCBASE MAP 2010



LEGEND

- MONITORING WELL (UPPER AQUIFER)
- RECOVERY WELL (TW–2)
- MONITORING WELL (LOWER AQUIFER)
- PIEZOMETER
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES (RZ–1, RZ–3, AND RZ–4)
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL (34, A)
- INACTIVE PRODUCTION WELL (31, 39, 11B, 12A)
- MONTGOMERY COUNTY WELL (USED BY MLC FOR PUMP TO WASTE PROGRAM)
- MONTGOMERY COUNTY WELL (INACTIVE MIAMI SHORES WELL FIELD – DAYTON PRIMARY PUBLIC SUPPLY BACKUP)
- STREAM GAUGE
- RIVER LEVEE
- CITY OF MORAINE MONITORING WELL
- FORMER BUILDING FOOTPRINT
- SURFACE WATER FEATURE

NOTES:
1. ORANGE INDICATES LOWER AQUIFER WELLS.
2. BLACK INDICATES UPPER AQUIFER WELLS.

0 200 1000ft

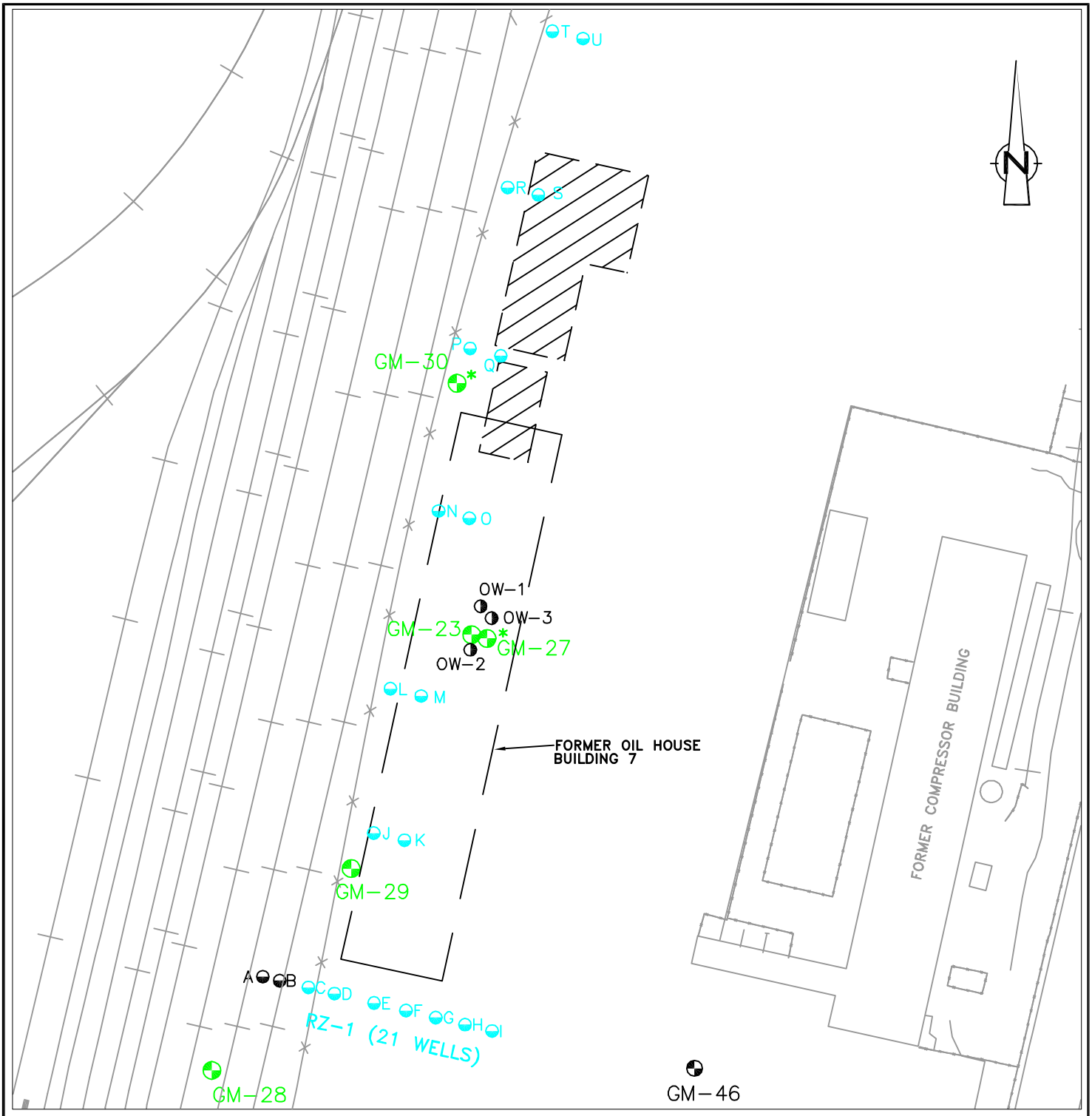
MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

OH000294.2011

SITE-WIDE CORRECTIVE MEASURES

ARCADIS

FIGURE
2



LEGEND

- MONITORING WELL USED FOR SITE–WIDE ON AN ANNUAL BASIS (UPPER AQUIFER)
- MONITORING WELL USED FOR SITE–WIDE MONITORING ON A FIVE–YEAR BASIS (UPPER AQUIFER)
- CARBON SOURCE INTRODUCTION WELL
- INACTIVE CARBON SOURCE INTRODUCTION WELL
- OXIDATION WELLS USED AS CARBON SOURCE INTRODUCTION WELLS (INACTIVE)
- MONITORING WELL (UPPER AQUIFER)
- APPROXIMATE LOCATION OF FORMER MORAINE ENGINE TANK FARM

0 150 FT

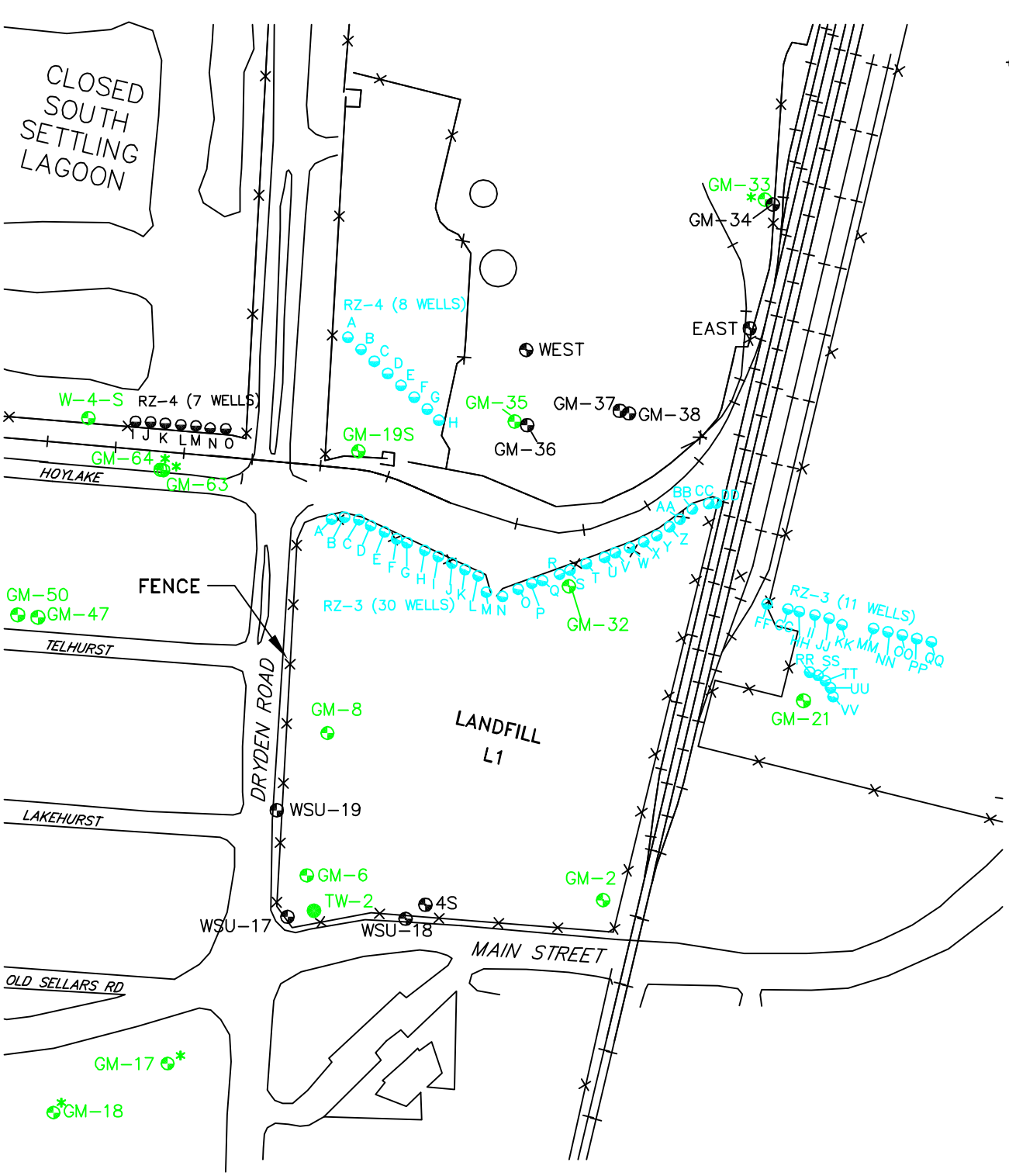
MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

OH000294.2011

REACTIVE ZONE #1

ARCADIS

FIGURE 3



LEGEND

- MONITORING WELL USED FOR SITE-WIDE MONITORING ON AN ANNUAL BASIS (UPPER AQUIFER)
- MONITORING WELL USED FOR SITE-WIDE MONITORING ON A FIVE-YEAR BASIS (UPPER AQUIFER)
- CARBON SOURCE INTRODUCTION WELLS
- INACTIVE CARBON SOURCE INTRODUCTION WELLS
- RECOVERY WELL (USED FOR SITE-WIDE MONITORING)
- MONITORING WELL (UPPER AQUIFER)

NOTE: INTRODUCTION WELL RZ-3LL WAS NOT INSTALLED DUE TO PRESENCE OF UNDERGROUND UTILITIES.

0 300 FT

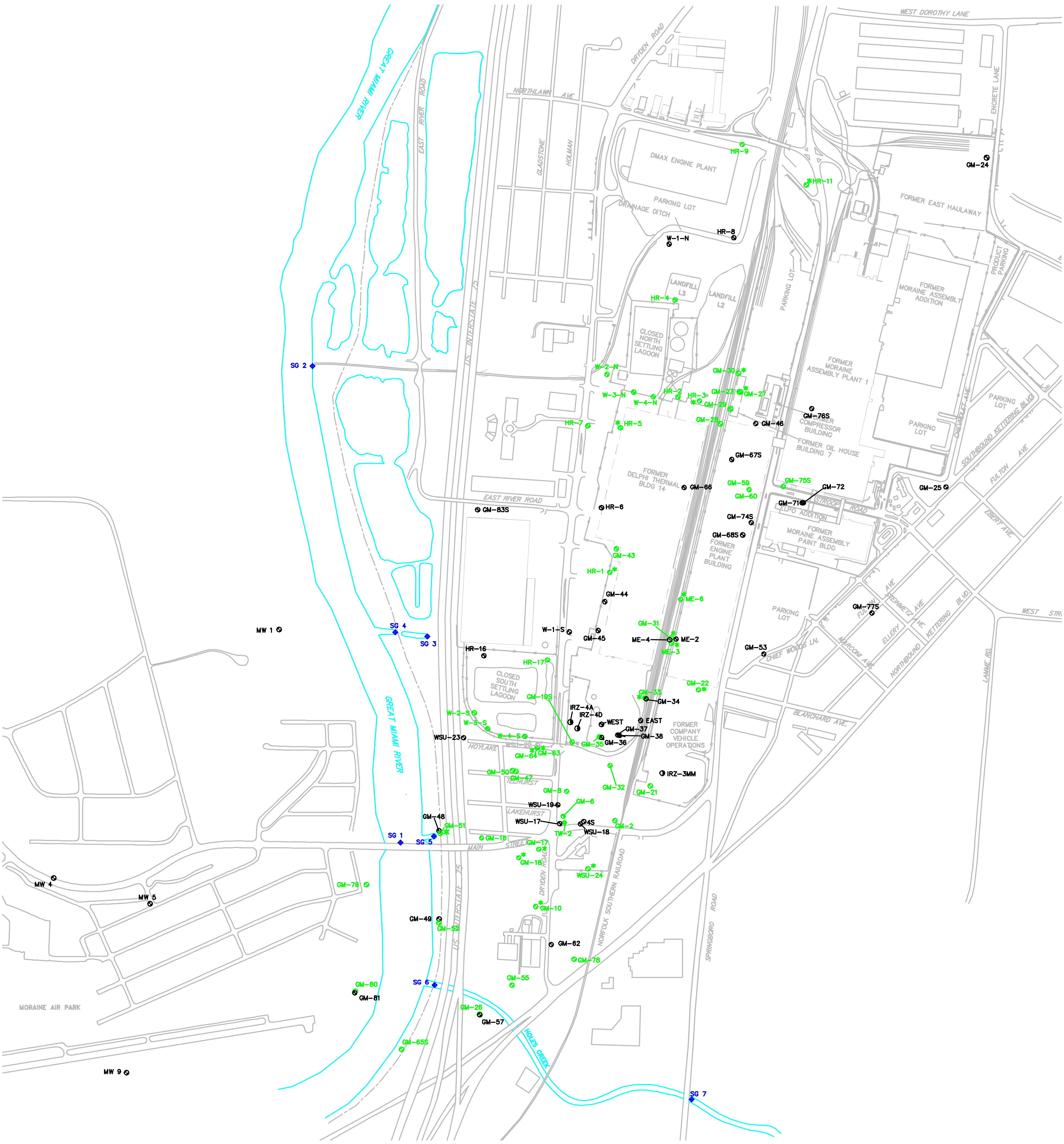
MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

OH000294.2011

REACTIVE ZONES #3 AND #4

ARCADIS

FIGURE 4



0 200 1000ft

N

LEGEND

- MONITORING WELL (UPPER AQUIFER)
- RECOVERY WELL (USED FOR SITE-WIDE MONITORING)
- STREAM GAUGE
- CARBON INTRODUCTION WELL
- MONITORING WELL USED FOR SITE-WIDE MONITORING ON AN ANNUAL BASIS (UPPER AQUIFER)
- * MONITORING WELL USED FOR SITE-WIDE MONITORING ON A FIVE-YEAR BASIS (UPPER AQUIFER)
- FORMER BUILDING FOOTPRINT
- RIVER LEVEE
- SURFACE WATER FEATURE

MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

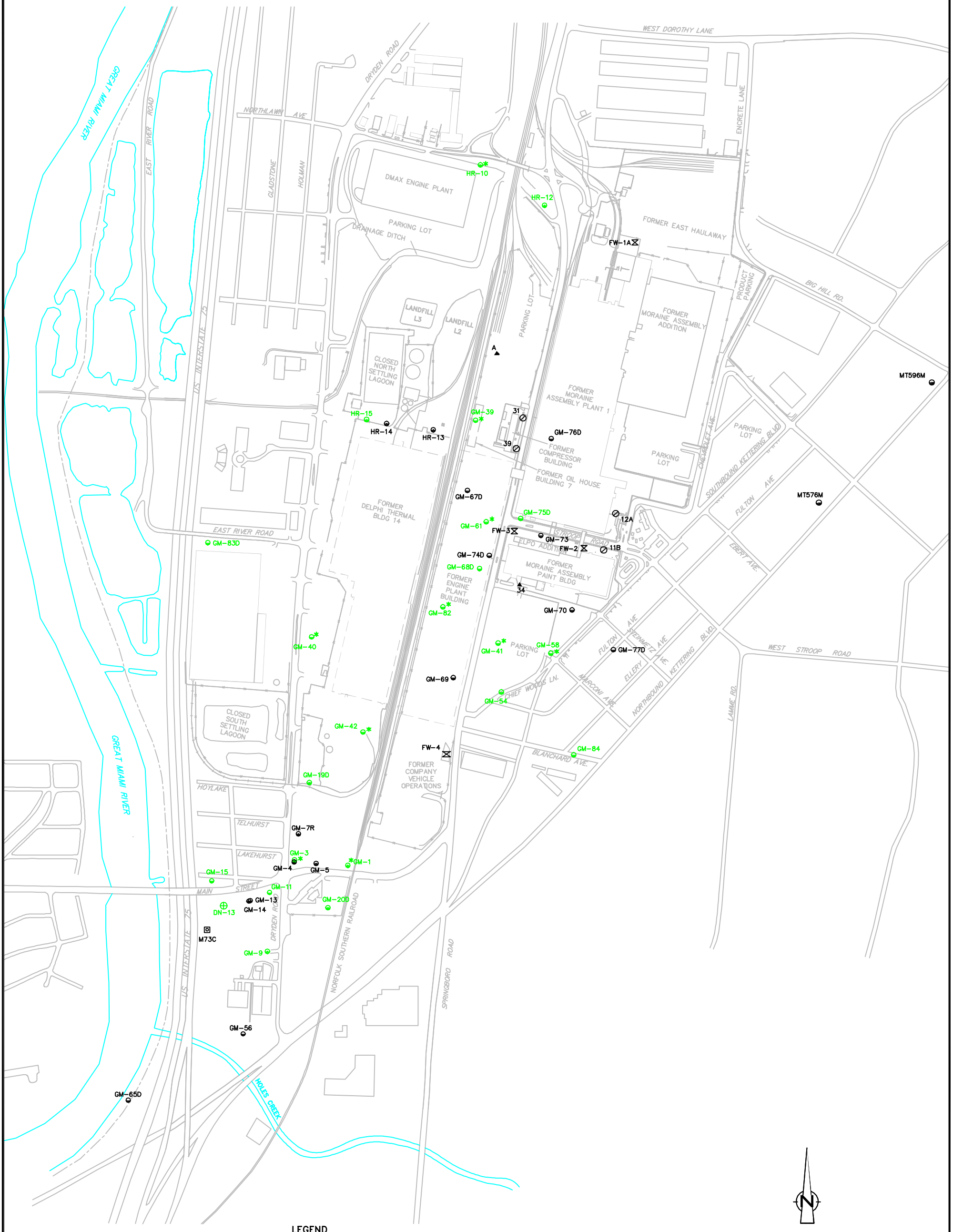
OH000294.2011

UPPER AQUIFER MONITORING WELLS FOR SITE-WIDE GROUNDWATER MONITORING

ARCADIS

FIGURE
5

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\OH29411-01.dwg LAYOUT: FIG 6 DEEP WELLS SAVED: 2/17/2011 10:01 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/17/2011 10:14 AM BY: SMITH, BOB
XREFS: PROJECTNAME: —
MLCBASE MAP 2010



LEGEND

- GM-9 — MONITORING WELL (LOWER AQUIFER)
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL (A, 34)
- INACTIVE PRODUCTION WELL (31, 39, 11B, 12A)
- MONTGOMERY COUNTY WELL (USED BY MLC FOR PUMP TO WASTE PROGRAM)
- MONITORING WELL USED FOR SITE-WIDE MONITORING ON AN ANNUAL BASIS (LOWER AQUIFER)
- * MONITORING WELL USED FOR SITE-WIDE MONITORING ON A FIVE-YEAR BASIS (LOWER AQUIFER)
- FORMER BUILDING FOOTPRINT
- RIVER LEVEE
- SURFACE WATER FEATURE

N

0 200 700ft

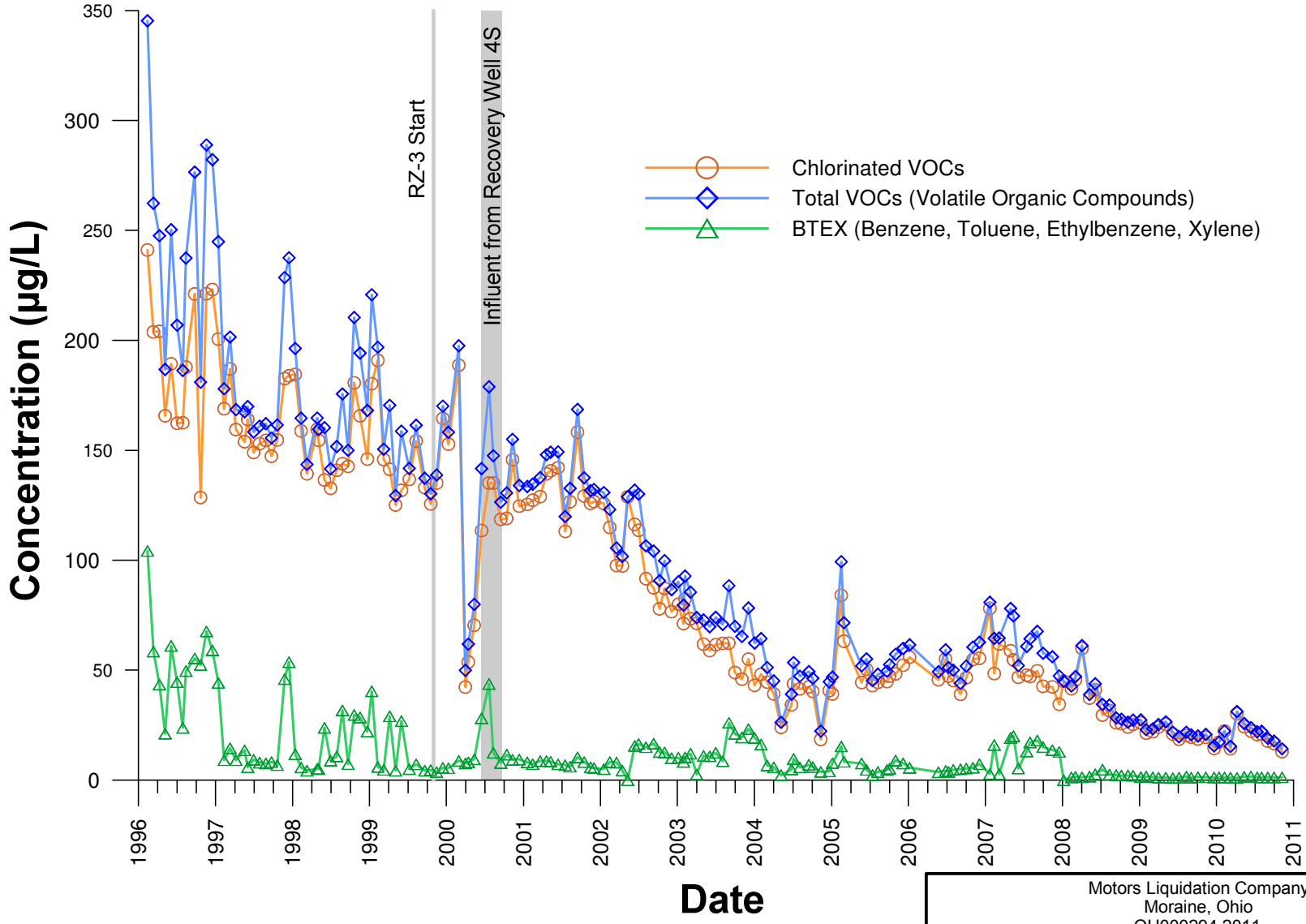
MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

OH000294.2011

LOWER AQUIFER MONITORING WELLS FOR SITE-WIDE GROUNDWATER MONITORING

ARCADIS

FIGURE 6



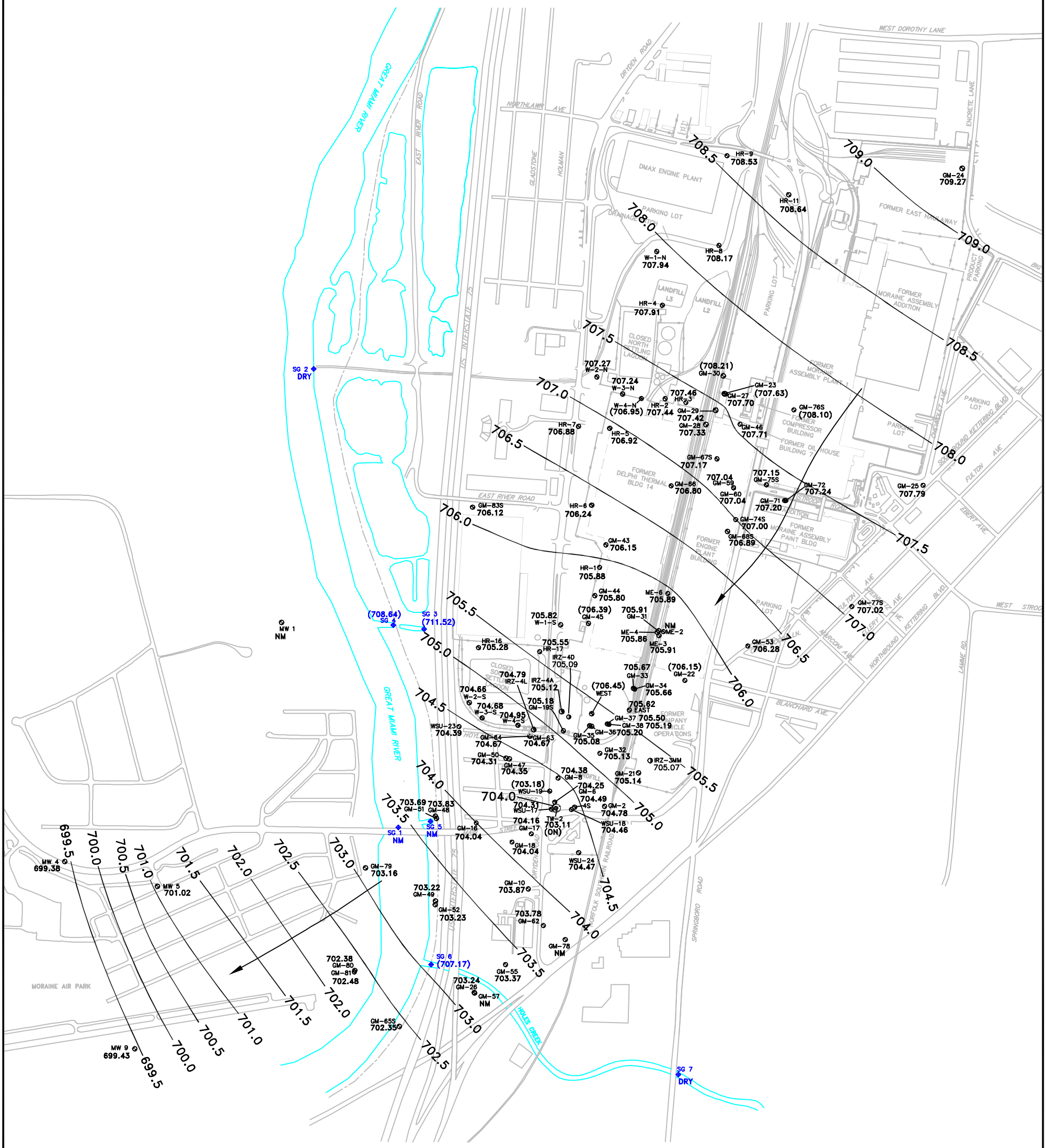
Motors Liquidation Company
Moraine, Ohio
OH000294.2011

RECOVERY WELL TW-2 INFLUENT VOCs SINCE GROUNDWATER RECOVERY AND TREATMENT STARTUP

ARCADIS

FIGURE
7

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\OH29411-02.dwg LAYOUT: FIG 8 GW ELEV 0920-2110 SHAL SAVED: 2/17/2011 10:10 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/17/2011 10:11 AM BY: SMITH, BOB
XREFS: PROJECTNAME: ----
MLCBASE MAP 2010



LEGEND

◓	MONITORING WELL (UPPER AQUIFER)
●	RECOVERY WELL (TW-2)
◆ 707.94	STREAM GAUGE AND STREAM GAUGE MEASUREMENT; NOT USED FOR CONTOURING
◑	CARBON INTRODUCTION WELL
— — —	RIVER LEVEE
706.23	GROUNDWATER ELEVATION (FEET MSL)
706.0 —	GROUNDWATER CONTOUR (FEET MSL) (DASHED WHERE INFERRED)
( )	NOT USED FOR CONTOURING
NM	NOT MEASURED
DRY	LOW STREAM LEVEL, NO MEASURABLE WATER
→	FLOW DIRECTION
ON/OFF	INDICATES WHETHER RECOVERY WELL IS IN OPERATION
⊥⊥	CONE OF DEPRESSION (ESTIMATED)
— — —	FORMER BUILDING FOOTPRINT
———	SURFACE WATER FEATURE
	CONTOUR INTERVAL = 0.5 FOOT

N

0 200 1000ft

MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

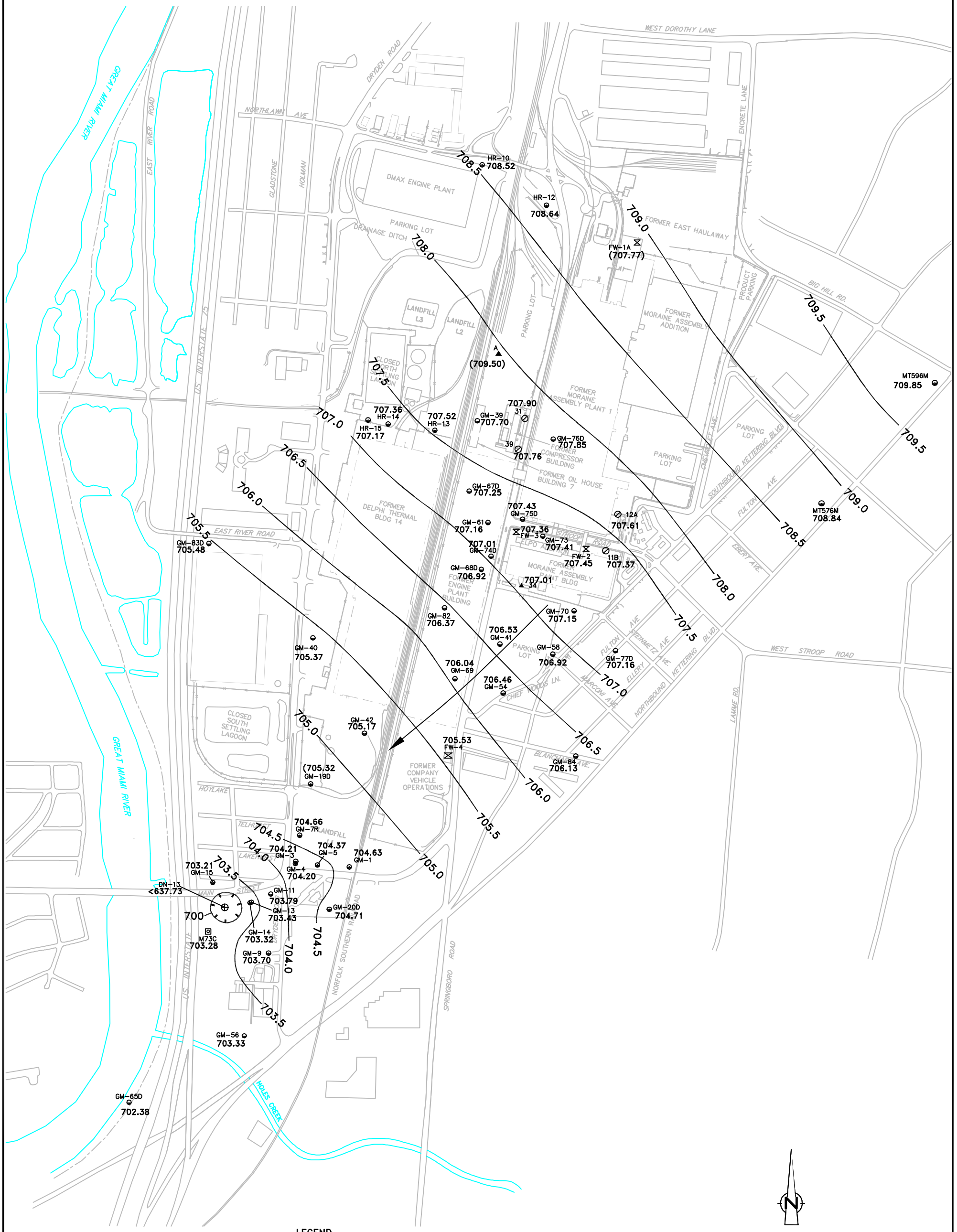
OH000294.2011

POTENTIOMETRIC SURFACE (UPPER AQUIFER) ON SEPTEMBER 20-21, 2010

ARCADIS

FIGURE
8

CITY:DUBLIN DIV/GROUP:SER2 DB:R. SMITH LD:(Opt) PIC:(Opt) PM:N. GILLOTTI TM:T. FORTNER LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\OH29411-02.dwg LAYOUT: FIG 9 GW ELEV 0920-2110 DEEP SAVED: 2/17/2011 10:10 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/17/2011 10:13 AM BY: SMITH, BOB
XREFS: PROJECTNAME: —
MLCBASE MAP 2010



LEGEND

GM-9 MONITORING WELL (LOWER AQUIFER)	706.0 GROUNDWATER CONTOUR (FEET MSL) (DASHED WHERE INFERRED)
PIEZOMETER	CONE OF DEPRESSION (ESTIMATED)
FIRE WELL	FORMER BUILDING FOOTPRINT
PRODUCTION WELL CONVERTED TO MONITORING WELL (A, 34)	( ) NOT USED FOR CONTOURING
INACTIVE PRODUCTION WELL	GROUNDWATER FLOW DIRECTION
MONTGOMERY COUNTY WELL (USED BY MLC FOR PUMP TO WASTE PROGRAM)	SURFACE WATER FEATURE
RIVER LEVEE	CONTOUR INTERVAL = 0.5 FOOT
704.97 GROUNDWATER ELEVATION (FEET MSL)	
NM NOT MEASURED	

NOTE: DN-13 DRAWN DOWN OVER 60 FEET, INDIVIDUAL CONTOURS NOT SHOWN.

N

0 200 700ft

MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

OH000294.2011

POTENTIOMETRIC SURFACE (LOWER AQUIFER) ON SEPTEMBER 20-21, 2010

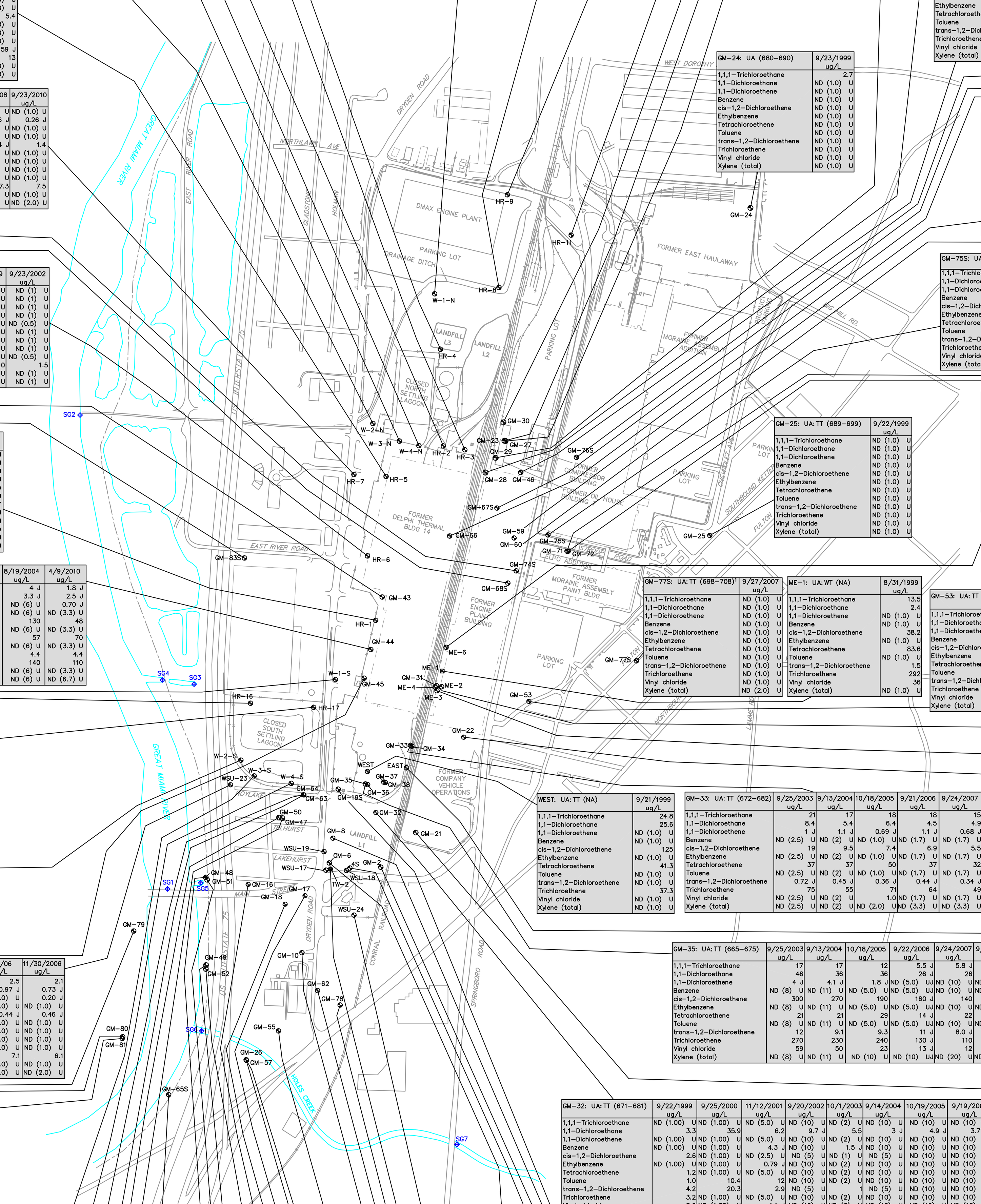
ARCADIS

FIGURE 9

CITY:(COLUMBUS) DIV/GROUP:(SER2) DB:(R. SMITH) LD:(Opt) PIC:(Opt) PM:(N. GILLOTTI) TM:(J. MANZO) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\DBUPPER-2010.dwg LAYOUT: MODEL SAVED: 2/15/2011 11:41 AM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/17/2011 9:54 AM BY: SMITH, BOB
XREFS: PROJECTNAME: ----

HR-4: UA:TT (676-686)	9/14/1999 ug/L	9/20/2000 ug/L	11/6/2001 ug/L	9/27/2002 ug/L	9/18/2003 ug/L	9/16/2004 ug/L	10/20/2005 ug/L	9/25/2006 ug/L	9/26/2007 ug/L	9/30/2008 ug/L	11/13/2009 ug/L	9/28/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	0.17 J	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	0.77 J	1.5	1.6	3.6	4.1	5.5	3.9
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	0.28 J	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	0.26 J	ND (1.0) U	0.23 J	ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	1.2	ND (1.00) U	0.88 J	0.59 J	0.55 J	1.3	0.39 J	0.41 J	0.33 J	0.44 J	0.37 J	0.34 J
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	0.95 J	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	1.4	ND (1.00) U	1.0	0.71 J	0.71 J	0.5 J	0.32 J	0.34 J	0.31 J	0.31 J	ND (1.0) U	0.28 J
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

HR-9: UA (673-683)	9/16/1999 ug/L	9/18/2000 ug/L	11/6/2001 ug/L	9/19/2002 ug/L	9/17/2003 ug/L	9/13/2004 ug/L	10/19/2005 ug/L	9/21/2006 ug/L	9/25/2007 ug/L	9/30/2008 ug/L	11/13/2009 ug/L	9/28/2010 ug/L
1,1,1-Trichloroethane	20.3	20.5	17	13	12	15	14	16	8.9	8.2/8.5	8.6	4.6
1,1-Dichloroethane	52.2	51.0	38	46	35	45	42	36	62	58/59	59	74
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	0.95 J	1.1 J	ND (1.2) U	1 J	0.97 J	0.65 J	0.56 J	0.49 J/ND (2.5) U	0.47 J	0.50 J
Benzene	ND (1.0) U	ND (1.00) U	ND (1.4) U	ND (1.7) U	ND (1.2) U	ND (2) U	ND (1.2) U	ND (1.4) U	ND (2.5) U	ND (2.5) U/ND (2.5) U	ND (2.0) U	ND (2.5) U
cis-1,2-Dichloroethene	20.3	16.3	12	17	11	17	19	15	25	32/34	31	38
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.4) U	ND (1.7) U	ND (1.2) U	ND (2) U	ND (1.2) U	ND (1.4) U	ND (2.5) U	ND (2.5) U/ND (2.5) U	ND (2.0) U	ND (2.5) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.4) U	ND (1.7) U	ND (1.2) U	ND (2) U	ND (1.2) U	ND (1.4) U	ND (2.5) U	ND (2.5) U/ND (2.5) U	ND (2.0) U	ND (2.5) U
Toluene	ND (1.0) U	ND (1.00) U	ND (1.4) U	ND (1.7) U	ND (1.2) U	ND (2) U	ND (1.2) U	ND (1.4) U	ND (2.5) U	ND (2.5) U/ND (2.5) U	ND (2.0) U	ND (2.5) U
trans-1,2-Dichloroethene	3.2	2.6	1.7	2.5	1.5	2.5	2.8	2.5	3.7	4.5/4.6	4.3	5.3
Trichloroethene	18.1	16.9	14	15	11	13	12	13	12	11/11	9.9	9.5
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.4) U	ND (1.7) U	ND (1.2) U	0.44 J	0.46 J	ND (1.4) U	0.66 J	ND (2.5) U/0.55 J	0.52 J	0.67 J
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.4) U	ND (1.7) U	ND (1.2) U	ND (2) U	ND (2.5) U	ND (2.9) U	ND (5.0) U	ND (5.0) U/ND (5.0) U	ND (4.0) U	ND (5.0) U



GM-49: UA:TT (651-661)	3/1/06 ug/L	11/30/2006 ug/L
1,1,1-Trichloroethane	2.4	1.8
1,1-Dichloroethane	3.4	2.6
1,1-Dichloroethene	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	4.7	3.8
Ethylbenzene	ND (1.0) U	ND (1.0) U
Tetrachloroethene	2.5	3.1
Toluene	0.25 J	ND (1.0) U
trans-1,2-Dichloroethene	0.66 J	0.53 J
Trichloroethene	8.4	11
Vinyl chloride	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (2.0) U	ND (2.0) U

LEGEND

- MONITORING WELL (UPPER)
- RECOVERY WELL (TW-2)
- STREAM GAUGE
- FORMER BUILDING 14 FOOTPRINT
- RIVER LEVEE
- SURFACE WATER FEATURE

ND NONDETECT, IF RESULT IS ND THE DETECTION LIMIT IS SHOWN IN PARENTHESIS
ug/L MICROGRAMS PER LITER
1 ELEVATIONS ESTIMATED
(668-678) WELL SCREEN ELEVATION IN FEET ABOVE MEAN SEA LEVEL
MCL EXCEEDANCES ARE UNDERLINED AT POINT OF COMPLIANCE WELL GM-26

GEOLOGIC MODIFIERS

UA UPPER AQUIFER
TT TOP OF TILL (BOTTOM OF SCREEN WITHIN 5 FEET OF TOP OF TILL)
TUT TOP OF UPPER TILL (BOTTOM OF SCREEN WITHIN 5 FEET OF TOP OF UPPER TILL)
WT WATER TABLE

0 200 700ft

MOTORS LIQUIDATION COMPANY
MORAINE, OHIO

OH000294.2011

VOC DATABOXES FOR UPPER AQUIFER WELLS

ARCADIS

FIGURE 10

CITY:(COLUMBUS) DIV/GROUP:(SER2) DB:(R. SMITH) LD:(Opt) PIC:(Opt) PM:(N. GILLOTTI) TM:(J. MANZO) LYR:(Opt)ON=*;OFF=*REF*
G:\ENVCAD\Columbus-OH\ACT\OH000294-MOTORS LIQUIDATION COMPANY\2011\DBLOWER-2010.dwg LAYOUT: MODEL SAVED: 2/11/2011 4:35 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 2/17/2011 9:55 AM BY: SMITH, BOB
XREFS: PROJECTNAME: ----

HR-10: LA:NTP (616-626)	9/15/1999 ug/L	9/29/2000 ug/L	11/14/2001 ug/L	9/27/2002 ug/L	9/17/2003 ug/L	9/20/2004 ug/L	10/24/2005 ug/L	9/26/2006 ug/L	9/25/2007 ug/L	9/30/2008 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Trichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U/ND (2.0) U	ND (2.0) U

HR-12: LA (611-621)	9/14/1999 ug/L	9/28/2000 ug/L	11/14/2001 ug/L	9/26/2002 ug/L	9/18/2003 ug/L	9/21/2004 ug/L	10/24/2005 ug/L	9/26/2006 ug/L	9/19/2007 ug/L	9/25/2008 ug/L	11/13/2009 ug/L	9/28/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	0.39 J	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	2.7	2.0/2.2	3.6	2.4/2.5	1.7	1.8	2.1	2.1	2.2	ND (1.0) U	2.0	2.1
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	1.2	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	1.8	1.8/2.0	2.7	2.1/2.2	1.4	1.2	1.5	1.3	1.3	ND (1.0) U	1.1	1.2
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	1.3	ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	0.23 J	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	5.2	ND (1.0) U	ND (1.0) U
Vinyl chloride	1.7	2.5/2.6	3.8	1.7/1.8	1.6	1.1	0.36 J	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

HR-13: LA:BT (648-658)	9/15/1999 ug/L	9/29/2000 ug/L	11/14/2001 ug/L	9/30/2002 ug/L	9/16/2003 ug/L	9/21/2004 ug/L	10/25/2005 ug/L	9/25/2006 ug/L
1,1,1-Trichloroethane	1.6/1.6	1.7	0.74 J	1.4	2.2	2.6	2.3	2.0
1,1-Dichloroethane	41.4/42.8	39.5	15	25	33	30	25	22
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	0.27 J	0.25 J	0.18 J
Benzene	ND (1.0) U	ND (1.00) U	0.18 J	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	20.8/21.2	14.1	6.5	11	12	12	11	9.0
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	0.20 J	0.20 J
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	0.4 U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	3.1/3.3	2.5	0.65	1.4	1.8	1.5	1.5	1.4
Trichloroethene	3.3/3.4	2.0	1.2	3.6	5.7	21	20	15
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	0.43 J	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U

GM-39: LA (615-625)	12/10/2003 ug/L	9/20/2004 ug/L	10/24/2005 ug/L	9/27/2006 ug/L	9/26/2007 ug/L	10/1/2008 ug/L
1,1,1-Trichloroethane	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Benzene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	7.6 J/19 J	0.67 J
Ethylbenzene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Toluene	0.18 J	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/0.23 J	ND (1.0) U
Trichloroethene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Vinyl chloride	1.3	1.8	0.77 J	1.7	2.5/1.6	3.2
Xylene (total)	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U/ND (2.0) U	ND (2.0) U

GM-76D: LA:BT (659-669)	9/23/2007 ug/L
VOAs	
1,1,1-Trichloroethane	ND (1.0) U/ND (1.0) U
1,1-Dichloroethane	0.29 J/0.30 J
1,1-Dichloroethene	ND (1.0) U/ND (1.0) U
Benzene	ND (1.0) U/ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U/ND (1.0) U
Ethylbenzene	ND (1.0) U/ND (1.0) U
Tetrachloroethene	0.65 J/0.63 J
Toluene	ND (1.0) U/ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U/ND (1.0) U
Trichloroethene	2.5/2.7
Vinyl chloride	ND (1.0) U/ND (1.0) U
Xylene (total)	ND (2.0) U/ND (2.0) U

HR-15: LA (634-644)	9/15/1999 ug/L	9/29/2000 ug/L	11/14/2001 ug/L	9/30/2002 ug/L	9/17/2003 ug/L	9/21/2004 ug/L	10/25/2005 ug/L	9/25/2006 ug/L	9/26/2007 ug/L	9/29/2008 ug/L	11/13/2009 ug/L	9/24/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U/ND (1) UJ	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	2.5	2.8	0.86	0.98/1	2.2	2.5	2.2	2.1/2.2	2.5	3.6	3.1	3.0
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	0.29 J	0.38 J	0.40 J	0.51 J/0.50 J	0.37 J	0.47 J	0.70 J	0.60 J
Vinyl chloride	11.0	11.2	ND (1.0) U	0.38 J/ND (1) U	14	19	14	13/13	15	9.7	6.5	3.8
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U/ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

31: LA (612-644)[1]	9/29/2000 ug/L	11/15/2001 ug/L
1,1,1-Trichloroethane	ND (1.00) U	ND (1) U
1,1-Dichloroethane	7.4	3.1
1,1-Dichloroethene	ND (1.00) U	ND (1) U
Benzene	ND (1.00) U	ND (1) U
cis-1,2-Dichloroethene	8.4	2.4
Ethylbenzene	ND (1.00) U	ND (1) U
Tetrachloroethene	ND (1.00) U	ND (1) U
Toluene	ND (1.00) U	ND (1) U
trans-1,2-Dichloroethene	ND (1.00) U	ND (0.5) U
Trichloroethene	12.9	5.1
Vinyl chloride	4.4	2.5
Xylene (total)	ND (1.00) U	ND (1) U

39: LA (590-615)[1]	9/27/2002 ug/L	9/24/2003 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1) U
1,1-Dichloroethane	1.6	0.58 J
1,1-Dichloroethene	ND (1.0) U	ND (1) U
Benzene	ND (1.0) U	ND (1) U
cis-1,2-Dichloroethene	1.3	0.71
Ethylbenzene	ND (1.0) U	ND (1) U
Tetrachloroethene	ND (1.0) U	ND (1) U
Toluene	ND (1.0) U	ND (1) U
trans-1,2-Dichloroethene	ND (0.5) U	ND (0.5) U
Trichloroethene	3.8	0.89 J
Vinyl chloride	0.51 J	ND (1) U
Xylene (total)	ND (1.0) U	ND (1) U

GM-61: LA:BT (652-662)	9/15/2006 ug/L	9/26/2007 ug/L	10/1/2008 ug/L
1,1,1-Trichloroethane	0.54 J/0.50 J	0.59 J	ND (1.0) U
1,1-Dichloroethane	2.4/2.2	1.6 J	0.94 J
1,1-Dichloroethene	ND (1.4) U/ND (1.7) U	ND (1.7) U	0.19 J
Benzene	ND (1.4) U/ND (1.7) U	ND (1.7) U	ND (1.0) U
cis-1,2-Dichloroethene	3.0/2.6	3.9	20
Ethylbenzene	ND (1.4) U/ND (1.7) U	ND (1.7) U	ND (1.0) U
Tetrachloroethene	24/20	28	13
Toluene	ND (1.4) U/0.44 J	ND (1.7) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.4) U/ND (1.7) U	ND (1.7) U	0.92 J
Trichloroethene	40/36	56	23
Vinyl chloride	ND (1.4) U/ND (1.7) U	ND (1.7) U	0.75 J
Xylene (total)	ND (2.9) U/ND (3.3) U	ND (3.3) U	ND (2.0) U

GM-74D: LA:BT (653-663)	9/27/2007 ug/L	4/9/2010 ug/L
1,1,1-Trichloroethane	ND (8.0) U	ND (2.5) U
1,1-Dichloroethane	ND (8.0) U	ND (2.5) U
1,1-Dichloroethene	ND (8.0) U	ND (2.5) U
Benzene	ND (8.0) U	ND (2.5) U
cis-1,2-Dichloroethene	ND (8.0) U	8.0
Ethylbenzene	ND (8.0) U	ND (2.5) U
Tetrachloroethene	250	98
Toluene	ND (8.0) U	ND (2.5) U
trans-1,2-Dichloroethene	ND (8.0) U	ND (2.5) U
Trichloroethene	130	50
Vinyl chloride	ND (8.0) U	ND (2.5) U
Xylene (total)	ND (16) U	ND (5.0) U

HR-14: LA (642-652)	9/15/1999 ug/L	9/30/2002 ug/L
1,1,1-Trichloroethane	ND (1) U	ND (1) U
1,1-Dichloroethane	ND (1) U	ND (1) U
1,1-Dichloroethene	ND (1) U	ND (1) U
Benzene	ND (1) U	ND (1) U
cis-1,2-Dichloroethene	7.9	3.6
Ethylbenzene	ND (1) U	ND (1) U
Tetrachloroethene	ND (1) U	ND (1) U
Toluene	ND (1) U	0.57 U
trans-1,2-Dichloroethene	ND (1) U	ND (0.5) U
Trichloroethene	3.4	1.2
Vinyl chloride	11.5	ND (1) U
Xylene (total)	ND (1) U	ND (1) U

GM-67D: LA:BT (653-663)	5/3/2007 ug/L
1,1,1-Trichloroethane	0.59 J
1,1-Dichloroethane	3.0
1,1-Dichloroethene	0.36 J
Benzene	ND (1.7) U
cis-1,2-Dichloroethene	23
Ethylbenzene	ND (1.7) U
Tetrachloroethene	54
Toluene	ND (1.7) U
trans-1,2-Dichloroethene	0.83 J
Trichloroethene	45
Vinyl chloride	ND (1.7) U
Xylene (total)	ND (3.3) U

GM-75D: LA (643-653)	9/26/2007 ug/L	10/6/2008 ug/L	11/16/2009 ug/L	4/8/2010 ug/L	9/29/2010 ug/L
1,1,1-Trichloroethane	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
1,1-Dichloroethane	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
1,1-Dichloroethene	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
Benzene	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
cis-1,2-Dichloroethene	24 J	120	14/15	19	12/11
Ethylbenzene	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
Tetrachloroethene	470	220	310/320	320	260/270
Toluene	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
trans-1,2-Dichloroethene	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
Trichloroethene	1700 J	750	200/210	200	190/200
Vinyl chloride	ND (50) U	ND (33) U	ND (5.0) U/ND (5.0) U	ND (9.1) U	ND (9.1) U/ND (8.0) U
Xylene (total)	ND (100) U	ND (67) U	ND (10) U/ND (10) U	ND (18) U	ND (18) U/ND (16) U

GM-68D: LA:BT (658-668)	5/4/2007 ug/L	10/3/2008 ug/L	11/16/2009 ug/L	9/29/2010 ug/L
1,1,1-Trichloroethane	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
1,1-Dichloroethane	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
1,1-Dichloroethene	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
Benzene	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
cis-1,2-Dichloroethene	ND (50) U/ND (50) U	14	4.5	3.0 J/2.8 J
Ethylbenzene	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
Tetrachloroethene	1500/1500	190	130 J	100/100
Toluene	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
trans-1,2-Dichloroethene	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
Trichloroethene	770/750	46	35	22/23
Vinyl chloride	ND (50) U/ND (50) U	ND (5.0) U	ND (2.0) U	ND (3.3) U/ND (3.3) U
Xylene (total)	ND (100) U/ND (100) U	ND (10) U	ND (4.0) U	ND (6.7) U/ND (6.7) U

GM-82: LA (85-95)	2/26/2008 ug/L	10/2/2008 ug/L
1,1,1-Trichloroethane	2.4/ND (2.0) U	1.0 J
1,1-Dichloroethane	2.5/2.3	2.4 J
1,1-Dichloroethene	0.43 J/ND (2.0) U	0.64 J
Benzene	ND (2.0) U/ND (2.0) U	ND (3.3) U
cis-1,2-Dichloroethene	47/47	46
Ethylbenzene	ND (2.0) U/ND (2.0) U	ND (3.3) U
Tetrachloroethene	67/60	51
Toluene	ND (2.0) U/ND (2.0) U	ND (3.3) U
trans-1,2-Dichloroethene	1.7 J/1.9 J	2.0 J
Trichloroethene	100/91	100
Vinyl chloride	ND (2.0) U/ND (2.0) U	ND (3.3) U
Xylene (total)	ND (4.0) U/ND (4.0) U	ND (6.7) U

GM-41: LA (617-627)	12/10/2003 ug/L	9/21/2004 ug/L	10/24/2005 ug/L	9/18/2006 ug/L	5/3/2007 ug/L	9/20/2007 ug/L	9/26/2008 ug/L
1,1,1-Trichloroethane	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
1,1-Dichloroethane	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
1,1-Dichloroethene	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
Benzene	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
cis-1,2-Dichloroethene	10	24	16/17	11	15	17	11
Ethylbenzene	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
Tetrachloroethene	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
Toluene	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	ND (6.7) U	ND (7.1) U
trans-1,2-Dichloroethene	ND (5.6) U	ND (3.1) U	ND (10) U/ND (10) U	ND (4.0) U	ND (6.7) U	1.4 J	ND (7.1) U
Trichloroethene	320	180	250/290	210	170	230	180
Vinyl chloride	ND (11) U	ND (6.2) U	ND (10) U/ND (10) U	ND (4.0) U	2.4 J	1.9 J	ND (7.1) U
Xylene (total)	ND (11) U	ND (6.2) U	ND (20) U/ND (20) U	ND (8.0) U	ND (13) U	ND (13) U	ND (14) U

GM-42: LA (579-589)	12/9/2003 ug/L	9/20/2004 ug/L	10/25/2005 ug/L	9/26/2006 ug/L	9/25/2007 ug/L	9/30/2008 ug/L
1,1,1-Trichloroethane	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	0.46 J	0.7 J	0.64 J	0.50 J	0.64 J/0.67 J	0.66 J
1,1-Dichloroethene	ND (1) U	0.25 J	0.21 J	ND (1.0) U	0.20 J/ND (1.0) U	0.53 J
Benzene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	11	16	17	14	17/18	20
Ethylbenzene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Tetrachloroethene	0.27 J	ND (1) U	0.19 J	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U
Toluene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	0.30 J/0.18 J	ND (1.0) U
trans-1,2-Dichloroethene	0.34 J	0.44 J	0.59 J	0.44 J	0.59 J/0.69 J	0.89 J
Trichloroethene	0.37 J	0.43 J	0.85 J	0.64 J	2.1/2.2	9.9
Vinyl chloride	1	0.92 J	0.56 J	0.45 J	0.49 J/0.44 J	0.31 J
Xylene (total)	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U/ND (2.0) U	ND (2.0) U

GM-69: LA (632-642)	5/3/2007 ug/L
1,1,1-Trichloroethane	ND (12) U
1,1-Dichloroethane	8.7 J
1,1-Dichloroethene	ND (12) U
Benzene	ND (12) U
cis-1,2-Dichloroethene	29
Ethylbenzene	ND (12) U
Tetrachloroethene	6.5 J
Toluene	ND (12) U
trans-1,2-Dichloroethene	ND (12) U
Trichloroethene	300
Vinyl chloride	ND (12) U
Xylene (total)	ND (24) U

GM-73: LA (642-652)	10/23/2007 ug/L
1,1,1-Trichloroethane	ND (6.7) U
1,1-Dichloroethane	ND (6.7) U
1,1-Dichloroethene	ND (6.7) U
Benzene	ND (6.7) U
cis-1,2-Dichloroethene	ND (6.7) U
Ethylbenzene	ND (6.7) U
Tetrachloroethene	160
Toluene	ND (6.7) U
trans-1,2-Dichloroethene	ND (6.7) U
Trichloroethene	22
Vinyl chloride	ND (6.7) U
Xylene (total)	ND (13) U

GM-70: LA (655-665)	5/3/2007 ug/L
1,1,1-Trichloroethane	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U
Ethylbenzene	ND (1.0) U
Tetrachloroethene	11
Toluene	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	0.32 J
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (2.0) U

GM-40: LA (577-587)	12/10/2003 ug/L	9/20/2004 ug/L	10/25/2005 ug/L	9/26/2006 ug/L	9/25/2007 ug/L	9/30/2008 ug/L
1,1,1-Trichloroethane	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Vinyl chloride	3.1	3.2	2.9	3.9	4.0	3.6
Xylene (total)	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-58: LA:BT (654-664)	9/14/2006 ug/L	11/30/2006 ug/L	5/3/2007 ug/L	9/20/2007 ug/L	9/26/2008 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
1,1-Dichloroethane	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
1,1-Dichloroethene	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
Benzene	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
cis-1,2-Dichloroethene	0.73 J	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
Ethylbenzene	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
Tetrachloroethene	4.4	89/85	82	69	80
Toluene	0.40 J	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
Trichloroethene	0.72 J	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
Vinyl chloride	ND (1.0) U	ND (3.3) U/ND (3.3) U	ND (2.9) U	ND (3.3) U	ND (2.5) U
Xylene (total)	ND (2.0) U	ND (6.7) U/ND (6.7) U	ND (5.7) U	ND (6.7) U	ND (5.0) U

GM-83D: LA (110-120)	2/26/2008 ug/L	10/2/2008 ug/L	11/11/2009 ug/L	9/22/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.0) UJ/ND (1.0) UJ	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	0.28 J	0.30 J/0.27 J	0.31 J	0.31 J
Ethylbenzene	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	ND (1.0) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Vinyl chloride	1.5	1.3/1.4	2.1	2.0
Xylene (total)	ND (2.0) U	ND (2.0) U/ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-77D: LA:BT (657-667)	9/27/2007 ug/L	1/28/2010 ug/L
1,1,1-Trichloroethane	ND (1.4) U	ND (1.0) U
1,1-Dichloroethane	ND (1.4) U	ND (1.0) U
1,1-Dichloroethene	ND (1.4) U	ND (1.0) U
Benzene	ND (1.4) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.4) U	ND (1.0) U
Ethylbenzene	ND (1.4) U	ND (1.0) U
Tetrachloroethene	45	18
Toluene	ND (1.4) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.4) U	ND (1.0) U
Trichloroethene	ND (1.4) U	ND (1.0) U
Vinyl chloride	ND (1.4) U	ND (1.0) U
Xylene (total)	ND (2.9) U	ND (2.0) U

GM-54: LA (651-661)	9/14/2006 ug/L	5/2/2007 ug/L	9/20/2007 ug/L	9/30/2008 ug/L	11/13/2009 ug/L	1/28/2010 ug/L	9/23/2010 ug/L
1,1,1-Trichloroethane	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
1,1-Dichloroethane	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
1,1-Dichloroethene	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
Benzene	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
cis-1,2-Dichloroethene	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
Ethylbenzene	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
Tetrachloroethene	180	160	150	190	120	120	92
Toluene	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
trans-1,2-Dichloroethene	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
Trichloroethene	3.2 J	2.9 J	2.4 J	2.5 J	2.9 J	2.4 J	2.2 J
Vinyl chloride	ND (6.7) U	ND (5.0) U	ND (5.0) U	ND (5.7) U	ND (5.0) U	ND (5.0) U	ND (2.5) U
Xylene (total)	ND (13) U	ND (10) U	ND (10) U	ND (11) U	ND (10) U	ND (10) U	ND (5.0) U

GM-19D: LA (583-588)[1]	9/28/1999 ug/L	10/2/2000 ug/L	11/14/2001 ug/L	9/26/2002 ug/L	9/25/2003 ug/L	9/20/2004 ug/L	10/25/2005 ug/L	9/26/2006 ug/L	9/17/2007 ug/L	9/23/2008 ug/L	11/11/2009 ug/L	9/27/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	0.18 J	ND (1) U	ND (1) U	0.31 J	ND (1.0) U	ND (1.0) U	0.25 J	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	1.2	3.5	0.92	0.81	1.8	2	2.7	2.0	1.4	2.4	2.1	2.4
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U	ND (1.00) U	0.38 J	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	13.5	2.9	3.7	3.1	0.24 J	3.5	1.2	1.4	3.2	ND (1.0) U	1.7	0.98 J
Vinyl chloride	1.5	15.7	13	0.36 J	17	18	15	18	16	9.8	14	9.9
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-15: LA (625-635)[1]	9/24/1999 ug/L	10/2/2000 ug/L	11/14/2001 ug/L	9/27/2002 ug/L	9/22/2003 ug/L	9/20/2004 ug/L	10/26/2005 ug/L	9/18/2006 ug/L	9/25/2007 ug/L	9/30/2008 ug/L	11/13/2009 ug/L	9/23/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	2.4	2.2/2.3	1.4	1.6	1.7	1.8	1.7	1.6	1.5	1.1	1.2	1.2
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	4.3	2.6/3.8	1.2	1.8	1.6	1.4	1.7	1.2	1.1	0.79 J	1.0	1.0
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	4.1	4.5/4.7	4.9	4.7	5.9	5.8	5.9	6.3	5.1	6.2	6.5	6.5
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-84: LA (96.5-106.5)	2/26/2008 ug/L	10/2/2008 ug/L	11/16/2009 ug/L	1/27/2010 ug/L	9/23/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.0) UJ	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	0.57 J	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	5.5	6.6	6.3	6.4	5.9
Vinyl chloride	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-7R: LA (643-653)[1]	9/28/1999 ug/L
1,1,1-Trichloroethane	4.2/4.8
1,1-Dichloroethane	1.1/ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	2.1/2.3
Ethylbenzene	ND (1.0) U
Tetrachloroethene	ND (1.0) U
Toluene	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	76.1/76.8
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (1.0) U

GM-5: LA (628-638)[1]	9/28/1999 ug/L
1,1,1-Trichloroethane	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U
Ethylbenzene	ND (1.0) U
Tetrachloroethene	ND (1.0) U
Toluene	3.9
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	1.3
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (1.0) U

GM-14: LA (573-583)[1]	9/24/1999 ug/L
1,1,1-Trichloroethane	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U
Ethylbenzene	ND (1.0) U
Tetrachloroethene	ND (1.0) U
Toluene	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	ND (1.0) U
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (1.0) U

GM-13: LA (624-634)[1]	9/24/1999 ug/L
1,1,1-Trichloroethane	1.9
1,1-Dichloroethane	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U
Ethylbenzene	ND (1.0) U
Tetrachloroethene	3.6
Toluene	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	31.0
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (1.0) U

GM-1: LA (633-643)[1]	9/28/1999 ug/L	10/2/2000 ug/L	11/14/2001 ug/L	10/1/2002 ug/L	10/2/2003 ug/L	9/21/2004 ug/L	10/25/2005 ug/L	9/20/2006 ug/L	9/18/2007 ug/L	9/24/2008 ug/L
1,1,1-Trichloroethane	1.1	2.2	0.80 J	1.3 J	1.2	1.2	0.95 J/1.0	0.76 J	0.74 J	0.69 J
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	0.29 J	0.48 J	ND (1) U	ND (1) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.4) U	ND (1) U	ND (1) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.4) U	ND (1) U	ND (1) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	0.95	ND (0.5) U	ND (0.5) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.4) U	ND (1) U	ND (1) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	2.0	2.8	1.3	2.3	2	2.1	2.1/2.0	2.1	1.8	1.8
Toluene	5.2	ND (1.00) U	ND (1.0) U	ND (1.4) U	ND (1) U	ND (1) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.72) U	ND (0.5) U	ND (0.5) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	30.6	37.2	19	39.0	34	35	34/34	34	32	31
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.4) U	ND (1) U	ND (1) U	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.4) U	ND (1) U	ND (1) U	ND (2.0) U/ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-65D: LA:NTP (629-639)	5/2/2007 ug/L	1/21/2008 ug/L	1/27/2010 ug/L
1,1,1-Trichloroethane	0.44 J/0.40 J	0.32 J	0.88 J
1,1-Dichloroethane	1.4/1.4	0.94 J	1.2
1,1-Dichloroethene	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	1.5/1.5	1.0	1.1
Ethylbenzene	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Toluene	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	0.22 J/0.21 J	ND (1.0) U	ND (1.0) U
Trichloroethene	1.2/1.3	1.1	1.5
Vinyl chloride	ND (1.0) U/ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (2.0) U/ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-3: LA (627-637)[1]	9/28/1999 ug/L	10/2/2000 ug/L	11/14/2001 ug/L	10/1/2002 ug/L	10/2/2003 ug/L	9/21/2004 ug/L	10/25/2005 ug/L	9/22/2006 ug/L	9/18/2007 ug/L	9/24/2008 ug/L
1,1,1-Trichloroethane	1.7	1.0	0.16 J	0.74 J	0.96 J	1	0.83 J	0.59 J	0.67 J	ND (1.0) U/0.67 J
1,1-Dichloroethane	ND (1.0) U	2.1	0.95 J	1.8	1.6	1.8	1.6	2.0 J	1.5	ND (1.0) U/ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) UJ	ND (1.0) U	ND (1.0) U/ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) UJ	ND (1.0) U	ND (1.0) U/ND (1.0) U
cis-1,2-Dichloroethene	1.1	8.3	2.6	8.9	5.5	4.9	4.7	6.1 J	3.8	ND (1.0) U/ND (2.5) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.0) U	0.26 J	ND (1) U	ND (1.0) U	ND (1.0) UJ	ND (1.0) U	ND (1.0) U/ND (1.0) U
Tetrachloroethene	1.2	1.5	0.48 J	1.4	1.7	2	2.0	2.1 J	1.9	ND (1.0) UJ/2.0 J
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) UJ	ND (1.0) U	ND (1.0) U/ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	1.1	0.25 J	1.2	0.77	0.75	0.66 J	1.0 J	0.77 J	ND (1.0) U/0.41 J
Trichloroethene	7.5	9.4	2.9	9.5	12	13	14	13 J	14	ND (1.0) UJ/13 J
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	0.63 J	ND (1) U	ND (1) U	ND (1.0) U	0.27 J	ND (1.0) U	ND (1.0) U/ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1.0) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) UJ	ND (2.0) U	ND (2.0) U/ND (2.0) U

MT-69: LA (NA)	9/24/1999 ug/L	10/3/2000 ug/L	11/15/2001 ug/L	9/30/2002 ug/L	10/1/2003 ug/L	9/27/2004 ug/L	10/24/2005 ug/L	9/26/2006 ug/L	9/27/2007 ug/L
1,1,1-Trichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Trichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U/ND (2.0) U

GM-4: LA (578-588)[1]	9/28/1999 ug/L
1,1,1-Trichloroethane	ND (1.0) U
1,1-Dichloroethane	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	2.3
Ethylbenzene	ND (1.0) U
Tetrachloroethene	ND (1.0) U
Toluene	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	13.4
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (1.0) U

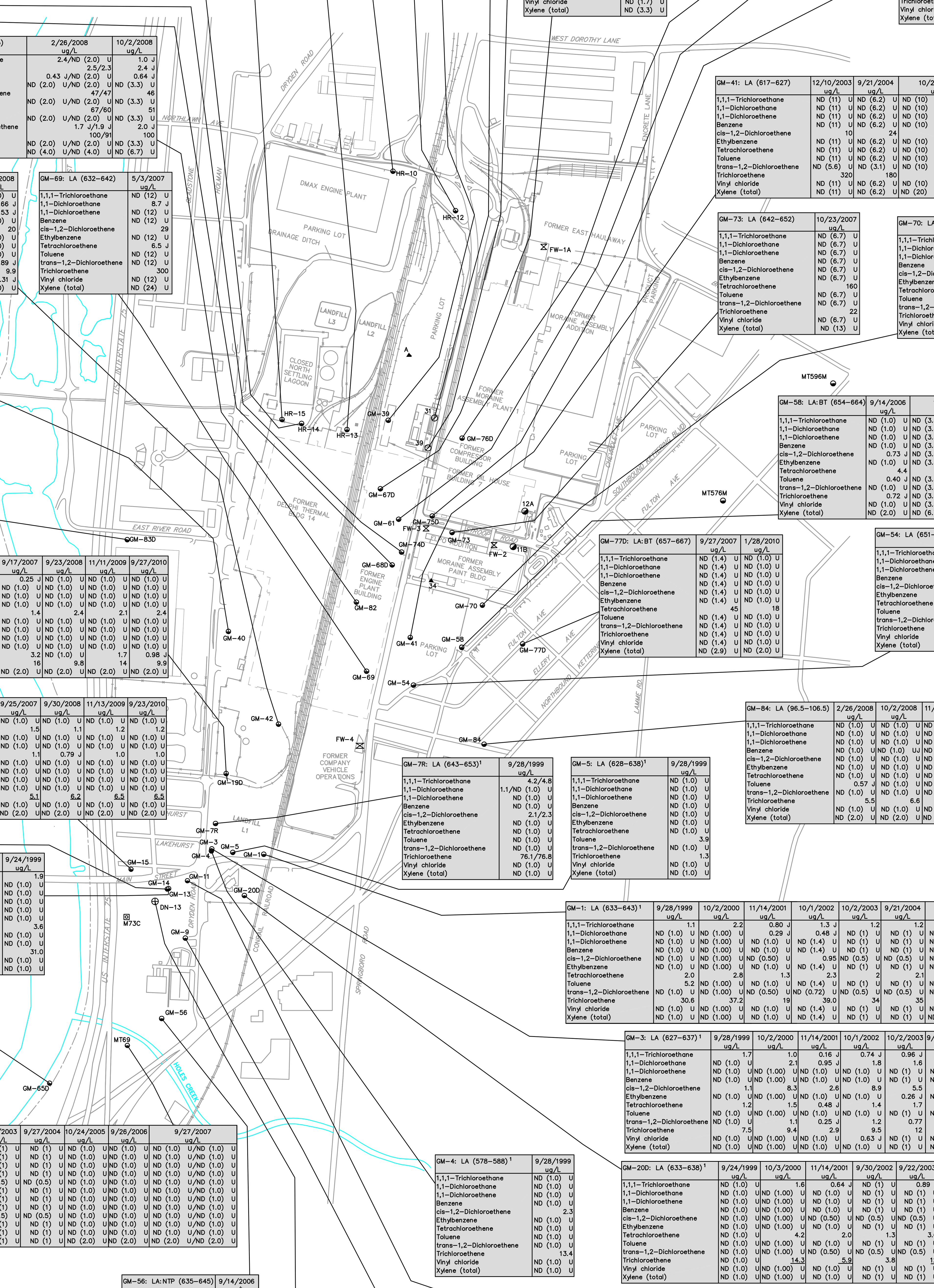
GM-20D: LA (633-638)[1]	9/24/1999 ug/L	10/3/2000 ug/L	11/14/2001 ug/L	9/30/2002 ug/L	9/22/2003 ug/L	9/21/2004 ug/L	10/26/2005 ug/L	9/26/2006 ug/L	9/19/2007 ug/L	9/25/2008 ug/L	11/13/2009 ug/L	9/22/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	1.6	0.64 J	ND (1) U	0.89 J	0.96 J	0.73 J	0.51 J	0.50 J	0.45 J	0.40 J	0.32 J
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) UJ	ND (1.0) U
Tetrachloroethene	ND (1.0) U	4.2	2.0	1.3	3.6	2.9	2.7	2.1	2.1	2.6	2.0	2.2
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	ND (1.0) U	14.3	5.9	3.8	12	11	11	11	9.2	6.6	7.6	6.5
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-11: LA (624-634)[1]	9/24/1999 ug/L	10/2/2000 ug/L	11/14/2001 ug/L	10/1/2002 ug/L	9/24/2003 ug/L	9/21/2004 ug/L	10/26/2005 ug/L	9/25/2006 ug/L	9/18/2007 ug/L	9/24/2008 ug/L	11/12/2009 ug/L	9/22/2010 ug/L
1,1,1-Trichloroethane	ND (1.0) U	1.4	0.33 J	1	0.96 J	0.89 J	0.75 J	0.75 J	0.60 J	0.47 J	0.47 J	0.36 J
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	ND (1.0) U	0.34 J	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	0.62	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	1.5	3.0	1.0	2.2	2.2	2.1	1.7	2.0	1.5	1.7	1.8	1.5
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	0.55 U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Trichloroethene	14.5	41.3	12	35	33	33	32	34	35	31	37	31
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	0.85 U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U

GM-56: LA:NTP (635-645)	9/14/2006 ug/L
1,1,1-Trichloroethane	0.35 J
1,1-Dichloroethane	ND (1.0) U
1,1-Dichloroethene	ND (1.0) U
Benzene	ND (1.0) U
cis-1,2-Dichloroethene	ND (1.0) U
Ethylbenzene	ND (1.0) U
Tetrachloroethene	0.57 J
Toluene	ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U
Trichloroethene	ND (1.0) U
Vinyl chloride	ND (1.0) U
Xylene (total)	ND (2.0) U

GM-9: LA (625-635)[1]	9/24/1999 ug/L	10/3/2000 ug/L	11/14/2001 ug/L	9/30/2002 ug/L	9/24/2003 ug/L	9/21/2004 ug/L	10/26/2005 ug/L	9/25/2006 ug/L	9/19/2007 ug/L	9/24/2008 ug/L	9/22/2010 ug/L
1,1,1-Trichloroethane	1.0	1.2	0.48 J	0.99 J	1.3	1.1/1.2	0.85 J	0.44 J	1.2	1.2	1.0/ND (1.0) U
1,1-Dichloroethane	ND (1.0) U	ND (1.00) U	0.58 J	0.48 J	0.45 J	0.6 J/0.7 J	0.59 J	0.48 J	0.48 J	ND (1.0) U	0.35 J/ND (1.0) U
1,1-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Benzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
cis-1,2-Dichloroethene	1.0	ND (1.00) U	1.1	0.66	0.56	0.97/0.83	0.99 J	0.85 J	0.71 J	ND (1.0) U	0.46 J/ND (1.0) U
Ethylbenzene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1.00) U	0.38 J	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) UJ/7.2 J
Toluene	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
trans-1,2-Dichloroethene	ND (1.0) U	ND (1.00) U	ND (0.50) U	ND (0.5) U	ND (0.5) U	ND (0.5) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Trichloroethene	13.8	17.2	8.6	16	20	16/16	15	6.6	18	18	17 J/ND (1.0) UJ
Vinyl chloride	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U/ND (1.0) U
Xylene (total)	ND (1.0) U	ND (1.00) U	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U/ND (2.0) U

DN-13: LA (554-614)	11/14/2001 ug/L	9/27/2002 ug/L	9/22/2003 ug/L	9/16/2004 ug/L	10/20/2005 ug/L	9/27/2006 ug/L	9/19/2007 ug/L	10/7/08 ug/L	11/11/2009 ug/L	9/22/2010 ug/L
1,1,1-Trichloroethane	1.1	1.1	1.1	0.84 J	1.5	0.51 J	0.48 J	0.57 J	0.77 J	0.48 J
1,1-Dichloroethane	2.5	2.5	2.4	2.2	2.0	1.5	2.0	1.6	2.1	1.6
1,1-Dichloroethene	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Benzene	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
cis-1,2-Dichloroethene	6.2	7.3	6.8	6.7	5.5	6.1	6.4	6.6	7.9	6.9
Ethylbenzene	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
Tetrachloroethene	ND (1.0) U	ND (1) U	0.31 J	0.44 J	0.38 J	0.33 J	ND (1.0) U	ND (1.0) U	0.33 J	ND (1.0) U
Toluene	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U	ND (1.0) U
trans-1,2-Dichloroethene	0.37 J	0.48 J	0.4 J	0.49 J	ND (1.0) U	0.41 J	0.40 J	0.40 J	0.50 J	0.44 J
Trichloroethene	5.0	6.1	6.4	6.8	7.2	5.7	3.3	4.7	6.5	5.0
Vinyl chloride	1.2	1.3	1.1	2.1	2.6	2.3	2.6	1.5	1.7	1.3
Xylene (total)	ND (1.0) U	ND (1) U	ND (1) U	ND (1) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U	ND (2.0) U



LEGEND

GM-9 MONITORING WELL (DEEP)
PIEZOMETER
FIRE WELL
PRODUCTION WELL CONVERTED TO MONITORING WELL (A, 34)
INACTIVE PRODUCTION WELL (31, 39, 11B, 12A)
PUMP TO WASTE WELL
FORMER BUILDING 14 FOOTPRINT
SURFACE WATER FEATURE
ND NONDETECT, IF RESULT IS ND THE DETECTION LIMIT IS SHOWN IN PARENTHESIS
ug/L MICROGRAMS PER LITER
1 ELEVATIONS ESTIMATED
(668-678) WELL SCREEN ELEVATION IN FEET ABOVE MEAN SEA LEVEL

MCL EXCEEDANCES ARE UNDERLINED AT POINT OF COMPLIANCE WELLS GM-15, GM-11 AND GM-20D

GEOLOGIC MODIFIERS

LA LOWER AQUIFER
BT BELOW TILL (TOP OF SCREEN WITHIN 5 FEET OF TILL BASE)
NTP NO TILL PRESENT

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VOC DATABOXES FOR LOWER AQUIFER WELLS

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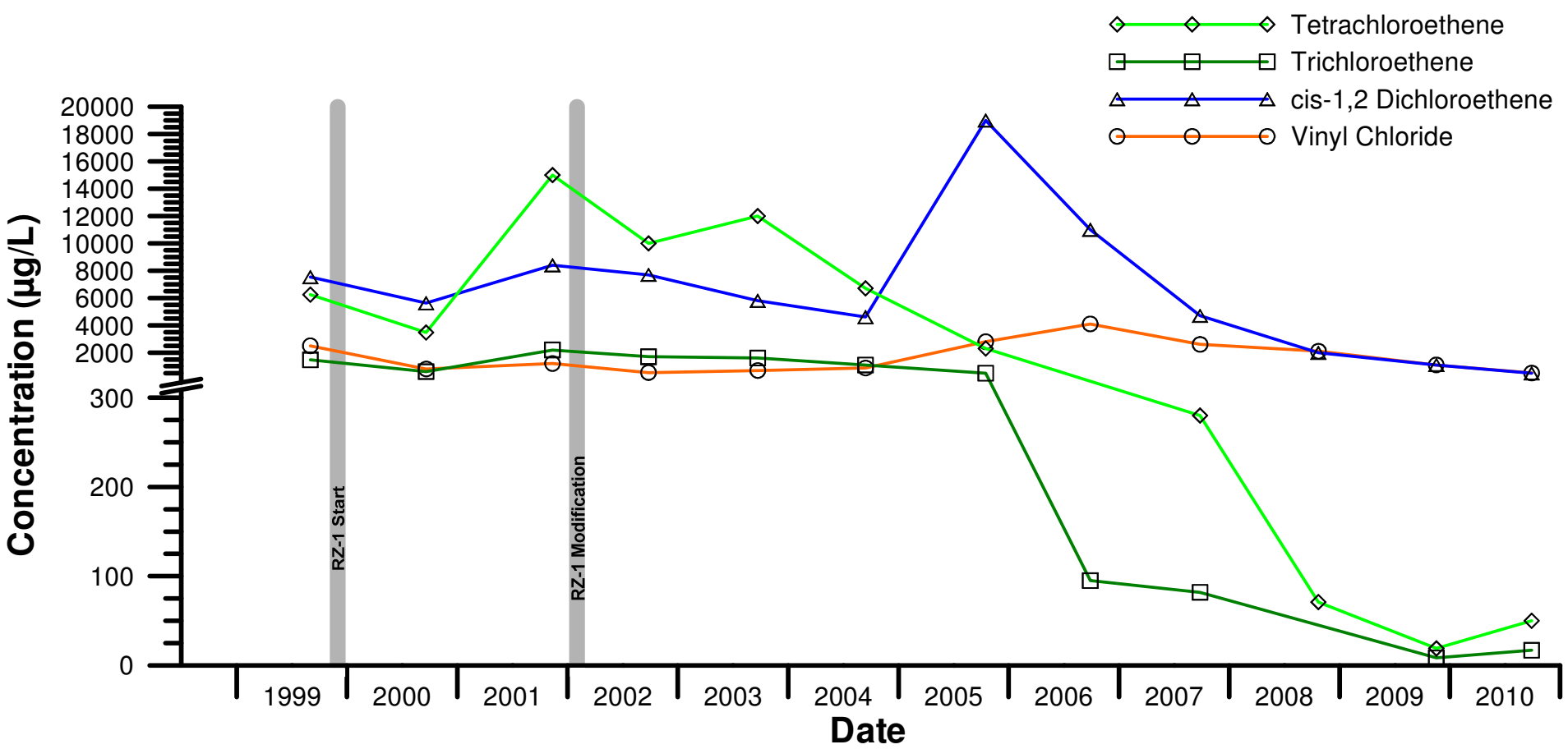
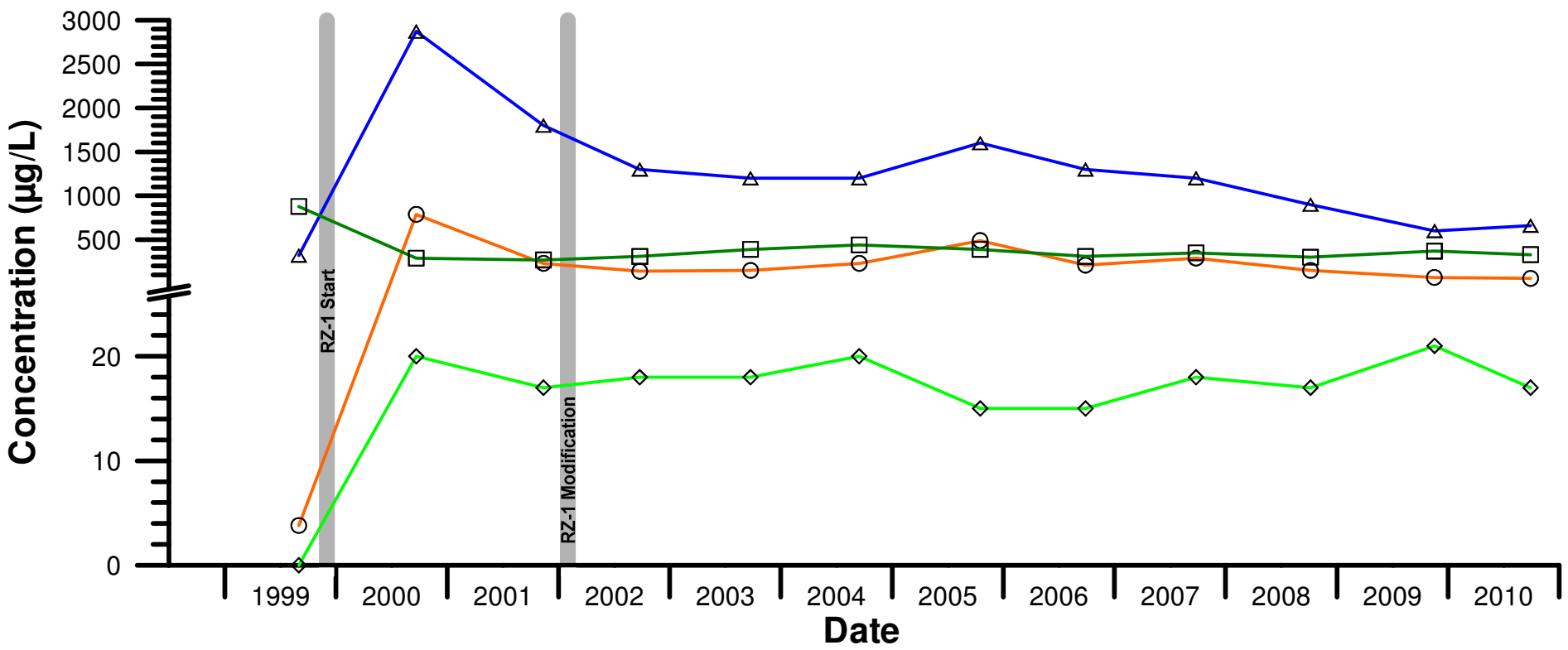
FIGURE 11

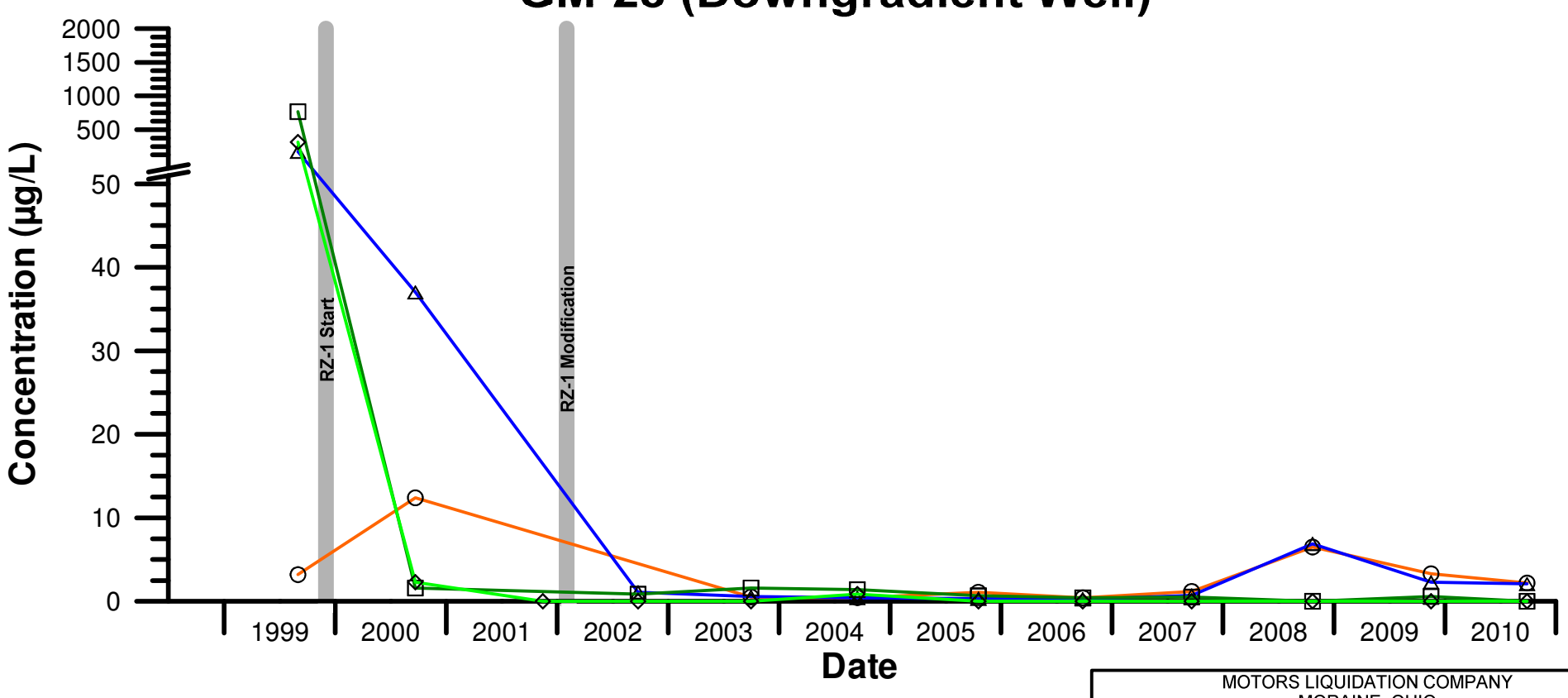
GM-23 (Source Well)



GM-29



GM-28 (Downgradient Well)



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RZ-1 Area Groundwater Concentration Graphs

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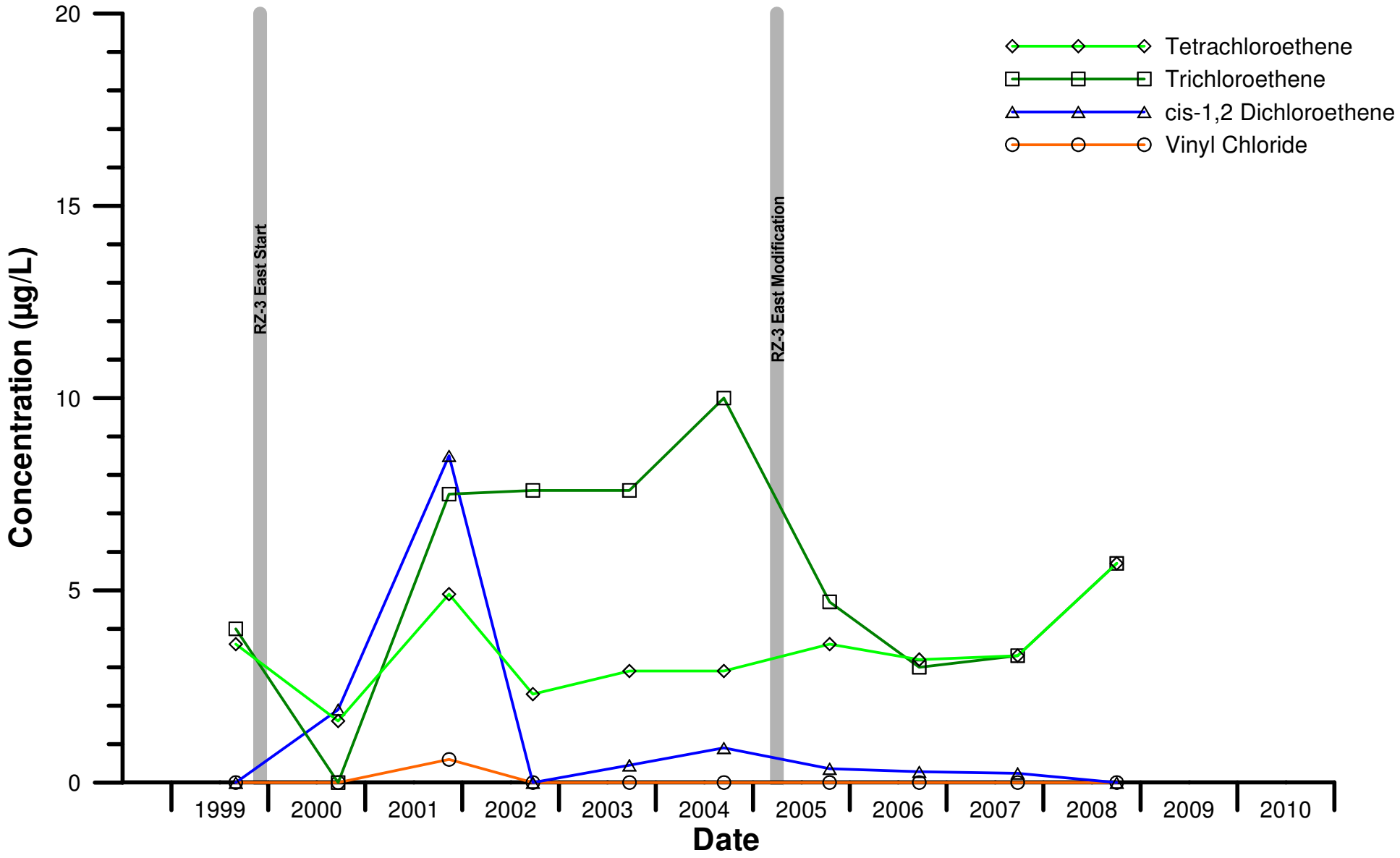
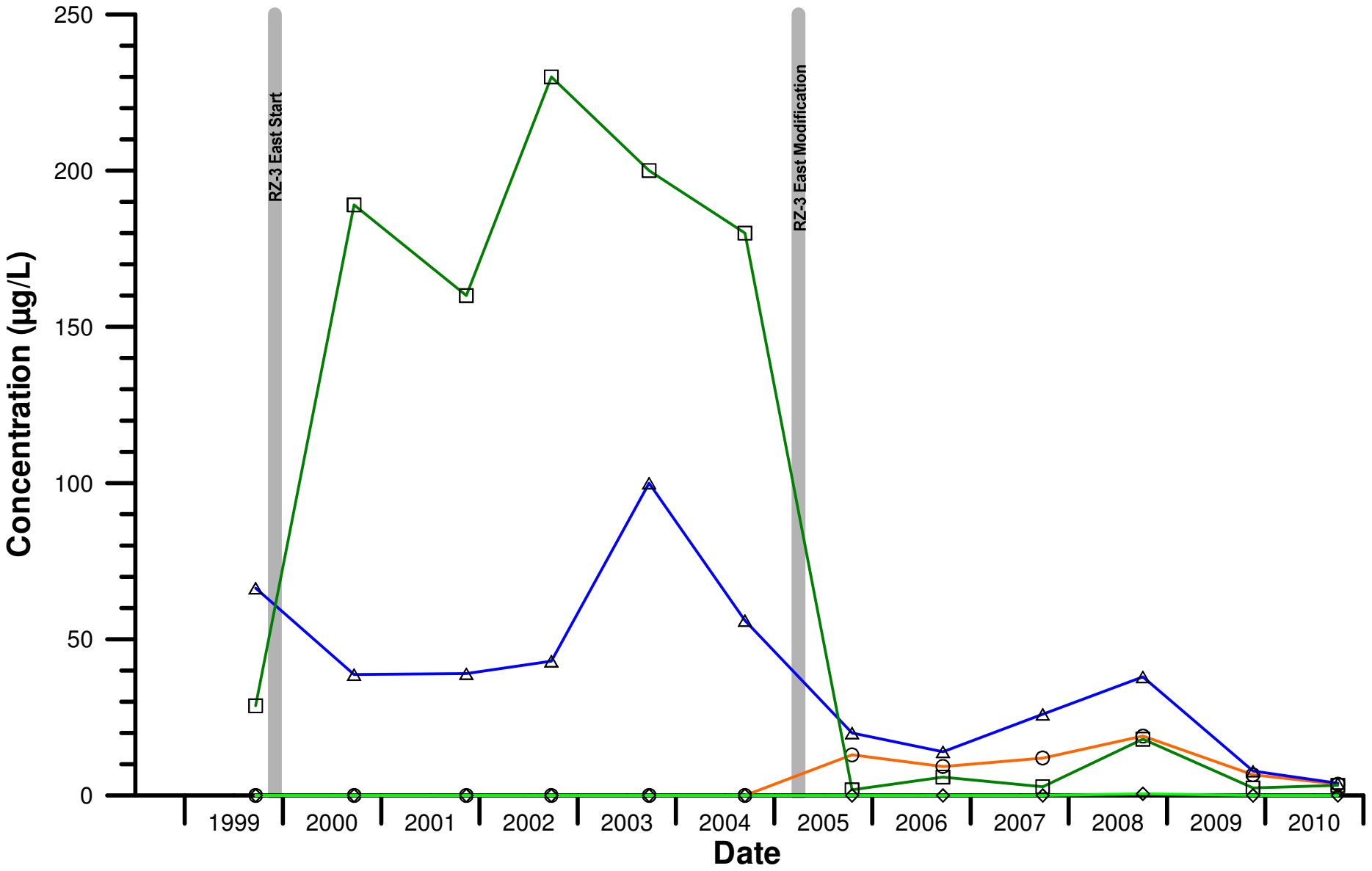
FIGURE
12

GM-22 (Upgradient)



GM-21 (Downgradient Well)



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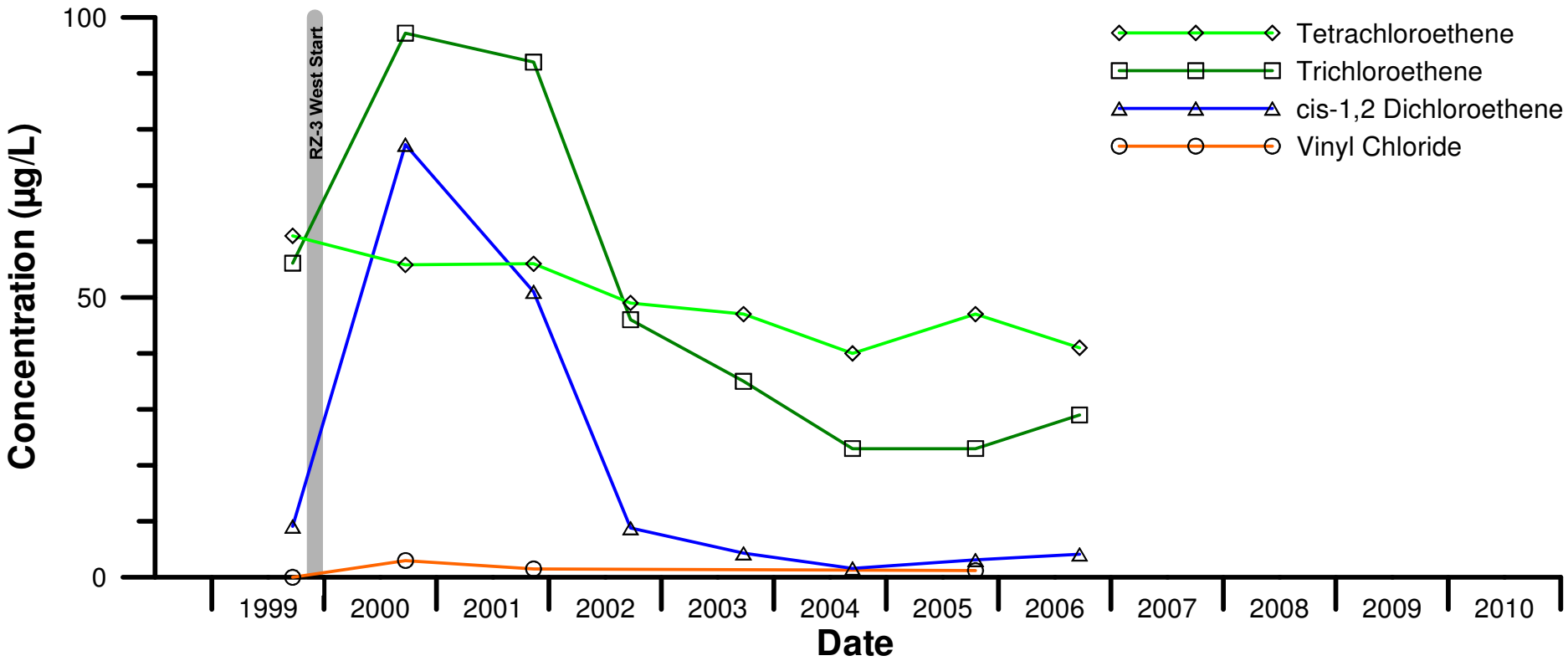
RZ-3 East Area Groundwater Concentration Graphs

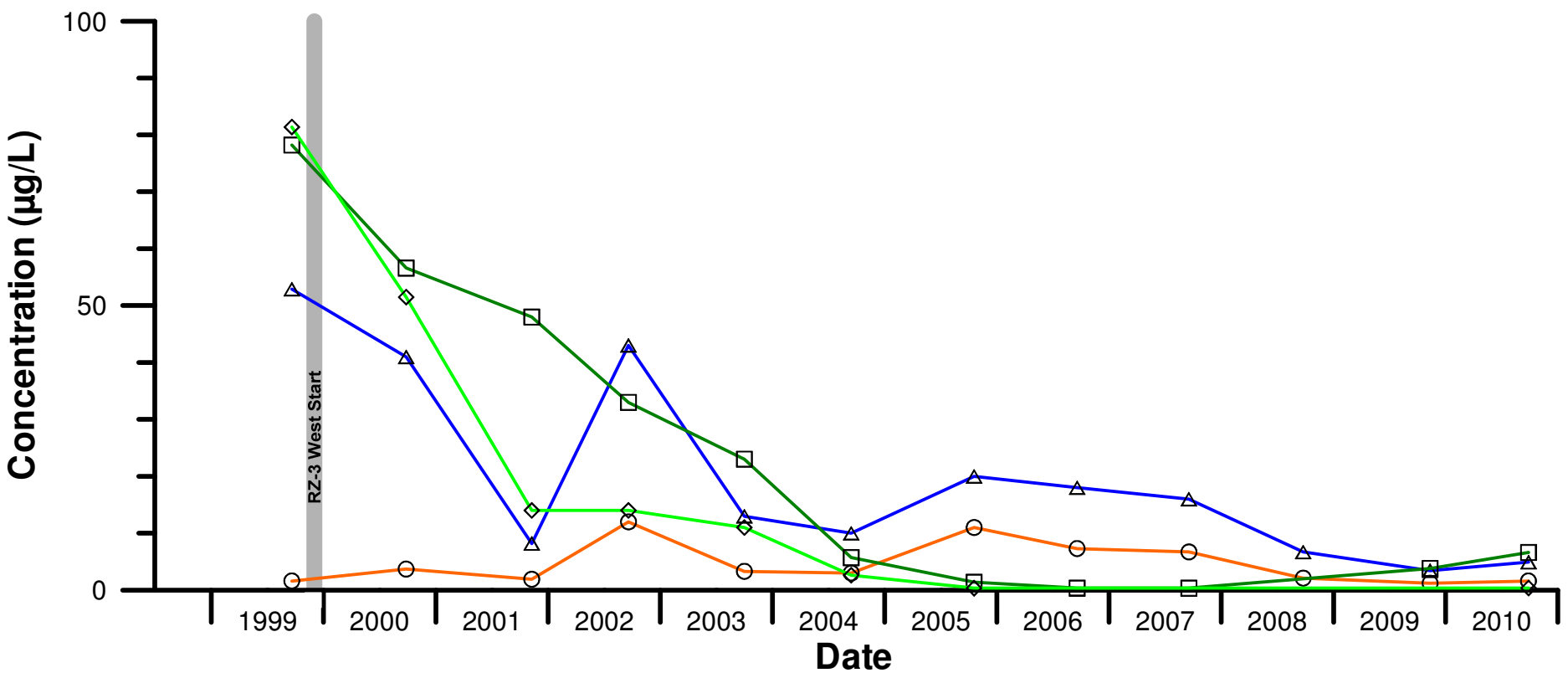
ARCADIS

FIGURE
13

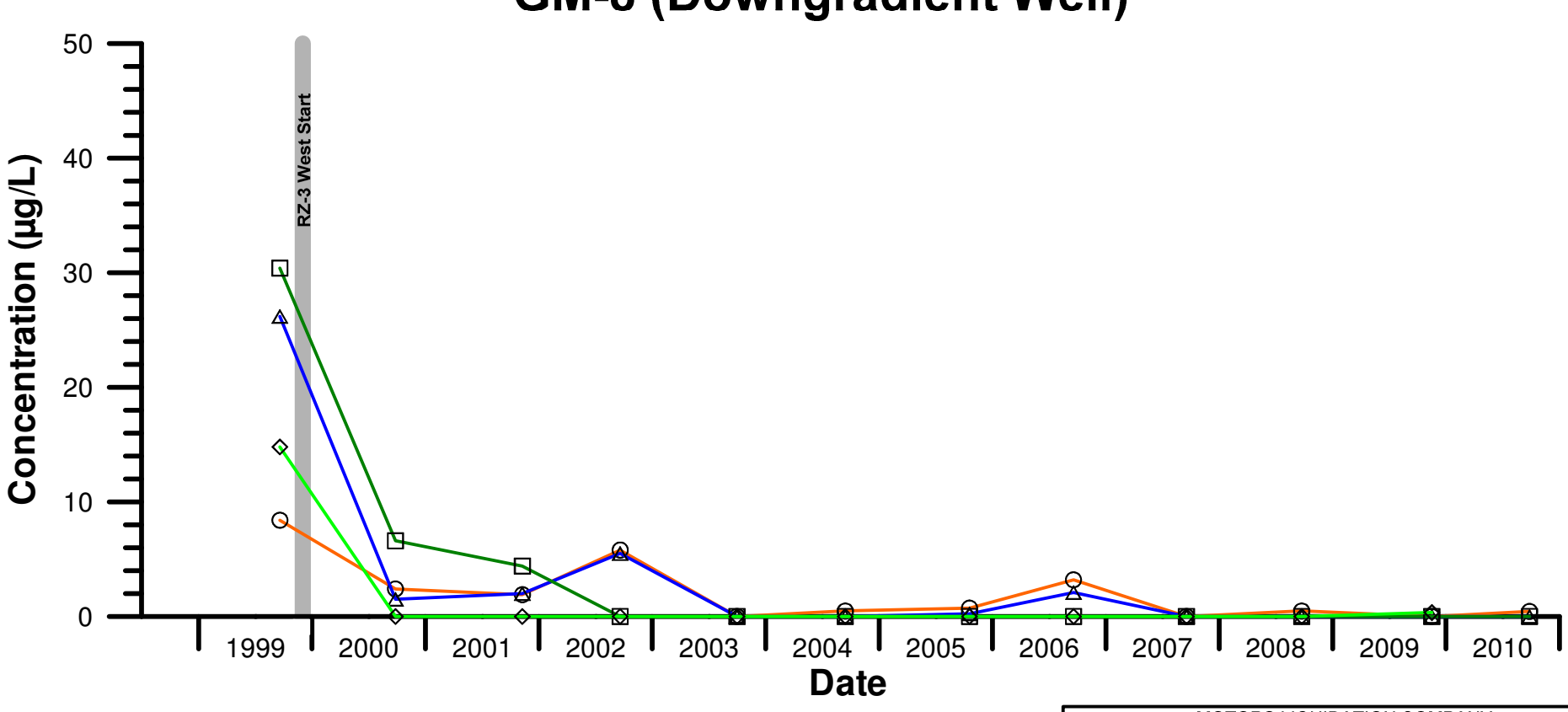
East (Upgradient)



GM-6 (Downgradient Well)



GM-8 (Downgradient Well)



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RZ-3 West Area Groundwater Concentration Graphs

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FIGURE
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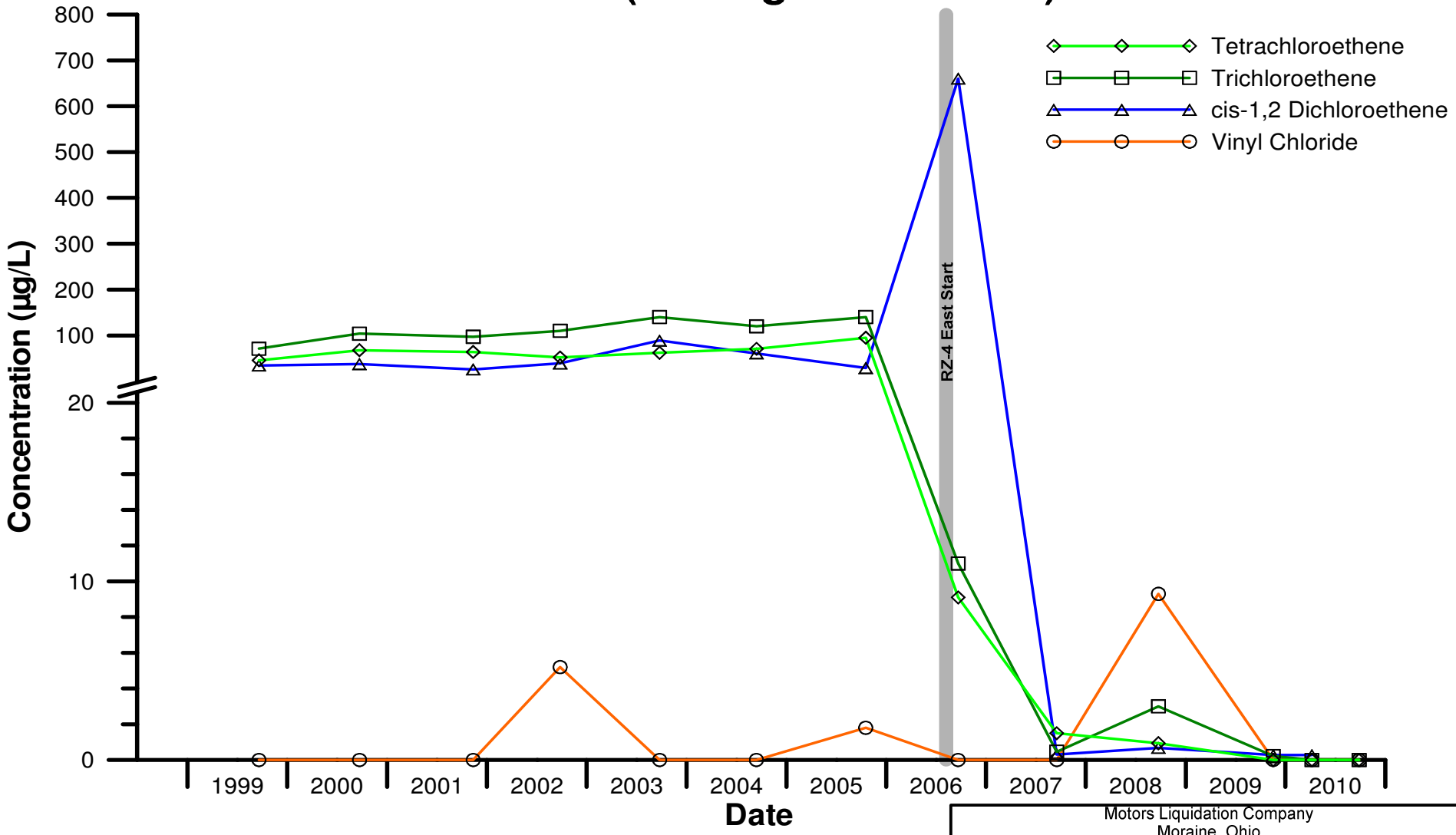
GM-19S (Downgradient Well)



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RZ-4 East Area Groundwater Concentration Graph

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FIGURE
15

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Appendix A

Site-Wide Groundwater VOC
Analytical Results from 1999 to 2009

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
Upgradient of the Site													
HR-9	9/16/1999	20.3	52.2	<1.0	<1.0	20.3	<1.0	<1.0	<1.0	3.2	18.1	<1.0	<1.0
HR-9	9/18/2000	20.5	51.0	<1.0	<1.0	16.3	<1.0	<1.0	<1.0	2.6	16.9	<1.0	<1.0
HR-9	11/6/2001	17	38	0.95J	< 1.4	12	< 1.4	< 1.4	< 1.4	1.7	14	< 1.4	< 1.4
HR-9	9/19/2002	13	46	1.1J	< 1.7	17	< 1.7	< 1.7	< 1.7	2.5	15	< 1.7	< 1.7
HR-9	9/17/2003	12	35	< 1.2 U	< 1.2 U	11	< 1.2 U	< 1.2 U	< 1.2 U	1.5	11	< 1.2 U	< 1.2 U
HR-9	9/13/2004	15	45	1 J	< 2 U	17	< 2 U	< 2 U	< 2 U	2.5	13	0.44 J	< 2 U
HR-9	10/19/2005	14	42	0.97 J	< 1.2 U	19	< 1.2 U	< 1.2 U	< 1.2 U	2.8	12	0.46 J	< 2.5 U
HR-9	9/21/2006	16	36	0.65 J	< 1.4 U	15	< 1.4 U	< 1.4 U	< 1.4 U	2.5	13	< 1.4 U	< 2.9 U
HR-9	9/25/2007	8.9	62	0.56J	< 2.5 U	25	< 2.5 U	< 2.5 U	< 2.5 U	3.7	12	0.66J	<5 U
HR-9	9/30/2008	8.2	58	0.49 J	< 2.5 U	32	< 2.5 U	< 2.5 U	< 2.5 U	4.5	11	< 2.5 U	< 5 U
HR-9	11/13/2009	8.6	59	0.47 J	< 2.0 U	31	< 2.0 U	< 2.0 U	< 2.0 U	4.3	9.9	0.52 J	< 4.0 U
HR-11	9/14/1999	<1.0	13.5	<1.0	<1.0	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-11	9/18/2000	<1.0	32.9	<1.0	<1.0	18.5	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	<1.0
HR-11	11/6/2001	0.30J	33	<1.0	< 1.0	18	< 1.0	< 1.0	< 1.0	2.3	< 1.0	< 1.0	< 1.0
HR-11	9/26/2002	< 1	18	< 1	< 1	6.1	< 1	< 1	< 1	0.72	< 1	< 1	< 1
HR-11	9/18/2003	< 1 U	10	< 1 U	< 1 U	1.7	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
HR-11	9/15/2004	< 1 U	7.3	< 1 U	< 1 U	0.45 J	< 1 U	2.2	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
HR-11	10/17/2005	< 1.0 U	6.5	< 1.0 U	< 1.0 U	0.72 J	< 1.0 U	6.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
HR-11	9/25/2006	< 1 U	6.7	< 1 U	< 1 U	0.31 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-11	9/19/2007	< 1 U	7.1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-11	9/25/2008	< 1 U	5.2	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
GM-24	9/23/1999	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
On-Site													
HR-8	9/16/1999	10.6	26.4	<1.0	<1.0	4.4	<1.0	<1.0	<1.0	1.5	1.6	<1.0	<1.0
HR-8	9/18/2000	9.9	29.0	<1.0	<1.0	5.6	<1.0	<1.0	<1.0	1.8	1.1	<1.0	<1.0
HR-8	11/6/2001	10	26	< 1.0	< 1.0	5.4	< 1.0	< 1.0	< 1.0	1.3	1.4	< 1.0	< 1.0
HR-8	9/19/2002	11	18	0.44J	< 1.0	4.8	< 1.0	< 1.0	< 1.0	0.85	1.8	< 1.0	< 1.0
HR-8	9/17/2003	7.8	13	< 1 U	< 1 U	2.8	< 1 U	< 1 U	< 1 U	0.63	1.3	< 1 U	< 1 U
HR-8	9/13/2004	6.4	8.6	0.32 J	< 1 U	1.5	< 1 U	< 1 U	< 1 U	0.45 J	1	< 1 U	< 1 U
HR-8	10/19/2005	4.4	5.5	0.19 J	< 1.0 U	1.3	< 1.0 U	0.24 J	< 1.0 U	0.28 J	0.66 J	< 1.0 U	< 2.0 U
HR-8	9/21/2006	4.2	6.1	< 1 U	< 1 U	0.92 J	< 1 U	< 1 U	< 1 U	0.3 J	0.55 J	< 1 U	< 2 U
W-1-N	9/17/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
W-1-N	9/19/2002	< 1.0	0.36J	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0
HR-4	9/14/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	1.4	<1.0	<1.0
HR-4	9/20/2000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-4	11/6/2001	0.17J	< 1.0	< 1.0	< 1.0	0.28J	< 1.0	0.88J	< 1.0	< 0.50	1.0	< 1.0	< 1.0
HR-4	9/27/2002	< 1	< 1	< 1	< 1	< 0.5	< 1	0.59J	< 1	< 0.5	0.71J	< 1	< 1
HR-4	9/18/2003	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	0.55 J	< 1 U	< 0.5 U	0.71 J	< 1 U	< 1 U
HR-4	9/16/2004	< 1 U	0.77 J	< 1 U	< 1 U	< 0.5 U	< 1 U	1.3	< 1 U	< 0.5 U	0.5 J	< 1 U	< 1 U
HR-4	10/20/2005	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.39 J	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 2.0 U
HR-4	9/25/2006	< 1 U	1.6	< 1 U	< 1 U	0.26 J	< 1 U	0.41 J	< 1 U	< 1 U	0.34 J	< 1 U	< 2 U
HR-4	9/26/2007	< 1 U	3.6	< 1 U	< 1 U	< 1 U	< 1 U	0.33 J	< 1 U	< 1 U	0.31 J	< 1 U	< 2 U
HR-4	9/30/2008	< 1 U	4.1	< 1 U	< 1 U	0.23 J	< 1 U	0.44 J	< 1 U	< 1 U	0.31 J	< 1 U	< 2 U
HR-4	11/13/2009	< 1.0 U	5.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
W-2-N	9/14/1999	<1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	1.7	<1.0	<1.0
W-2-N	9/19/2000	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
W-2-N	11/6/2001	0.48J	0.33J	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 0.50	1.3	< 1.0	< 1.0
W-2-N	9/19/2002	< 1.0	0.31J	< 1.0	< 1.0	1.6	< 1.0	< 1.0	< 1.0	< 0.50	1.4	< 1.0	< 1.0
W-2-N	9/18/2003	< 1 U	< 1 U	< 1 U	< 1 U	1.3	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
W-2-N	9/16/2004	0.3 J	0.36 J	< 1 U	< 1 U	1.8	< 1 U	0.31 J	< 1 U	0.2 J	1.4	< 1 U	< 1 U
W-2-N	10/20/2005	< 1.0 U	0.28 J	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.91 J	< 1.0 U	< 2.0 U
W-2-N	9/22/2006	0.25 J	0.29 J	< 1 UJ	< 1 UJ	1.4 J	< 1 UJ	< 1 UJ	< 1 UJ	0.18 J	1 J	< 1 UJ	< 2 UJ
W-2-N	9/25/2007	< 1 U	0.22 J	< 1 U	< 1 U	1.6	< 1 U	< 1 U	0.28J	< 1 U	0.88J	< 1 U	< 2 U
W-2-N	9/29/2008	< 1 U	< 1 U	< 1 U	< 1 U	1.7	< 1 U	< 1 U	< 1 U	< 1 U	0.47 J	< 1 U	< 2 U
W-2-N	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	< 1.0 U	< 2.0 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
W-3-N	9/17/1999	<1.0	<1.0	<1.0	<1.0	291	<1.0	2.5	<1.0	2.6	<1.0	12.8	<1.0
W-3-N	9/19/2000	<1.0	<1.0	<1.0	<1.0	282	<1.0	<1.0	<1.0	3.9	<1.0	24.0	<1.0
W-3-N	11/7/2001	< 5.6	< 5.6	< 5.6	< 5.6	160	< 5.6	9.0	< 5.6	2.2J	2.1J	7.6	< 5.6
W-3-N	9/23/2002	< 6.7	< 6.7	< 6.7	< 6.7	150	< 6.7	< 6.7	< 6.7	< 3.3	< 6.7	6.5J	< 6.7
W-3-N	9/17/2003	< 4 U	< 4 U	< 4 U	< 4 U	100	< 4 U	5.1	< 4 U	1.6 J	1.7 J	6.6	< 4 U
W-3-N	9/16/2004	< 4 U	< 4 U	< 4 U	< 4 U	120	< 4 U	0.94 J	< 4 U	1.6 J	< 4 U	6.1	< 4 U
W-3-N	10/20/2005	< 4.0 U	< 4.0 U	< 4.0 U	< 4.0 U	84	< 4.0 U	1.4 J	< 4.0 U	1.0 J	< 4.0 U	8.0	< 8.0 U
W-3-N	9/25/2006	< 5 U	< 5 U	< 5 U	< 5 U	140	< 5 U	< 5 U	< 5 U	1.9 J	< 5 U	9.6	< 10 U
W-3-N	9/26/2007	< 4 U	< 4 U	< 4 U	< 4 U	110	< 4 U	< 4 U	< 4 U	1.4 J	< 4 U	5.6	< 8 U
W-3-N	9/29/2008	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	98	< 3.3 U	< 3.3 U	< 3.3 U	1.4 J	< 3.3 U	3.8	< 6.7 U
W-3-N	11/13/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	72	< 2.0 U	< 2.0 U	< 2.0 U	0.99 J	< 2.0 U	3.2	< 4.0 U
W-4-N	9/17/1999	<1.0	1.3	<1.0	<1.0	2.2	<1.0	2.1	<1.0	<1.0	9.8	<1.0	<1.0
W-4-N	9/19/2000	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	7.3	<1.0	<1.0
W-4-N	11/7/2001	0.33J	0.89J	< 1.0	< 1.0	1.6	< 1.0	0.92J	< 1.0	< 0.50	7.1	< 1.0	< 1.0
W-4-N	9/24/2002	0.44J	1.7	< 1	< 1	5.2	< 1	0.94J	< 1	0.33J	8.5	0.77J	< 1
W-4-N	9/17/2003	0.26 J	0.94 J	< 1 U	< 1 U	1.7	< 1 U	1.1	< 1 U	< 0.5 U	8.1	0.48 J	< 1 U
W-4-N	9/16/2004	0.4 J	1.7	< 1 U	< 1 U	5.8	< 1 U	1.7	< 1 U	0.38 J	12	0.49 J	< 1 U
W-4-N	10/20/2005	< 1.0 U	1.2	< 1.0 U	< 1.0 U	2.0	< 1.0 U	1.0	< 1.0 U	< 1.0 U	7.2	0.54 J	< 2.0 U
W-4-N	9/25/2006	< 1 U	1.3	< 1 U	< 1 U	2.4	< 1 U	0.96 J	< 1 U	0.19 J	7.6	0.56 J	< 2 U
W-4-N	9/26/2007	0.34J	1.6	< 1 U	< 1 U	2.6	< 1 U	0.88 J	< 1 U	0.24 J	10	0.96 J	< 2 U
W-4-N	9/29/2008	0.39 J	1.9	< 1 U	< 1 U	11	< 1 U	0.38 J	< 1 U	0.92 J	8.4	0.34 J	< 2 U
W-4-N	11/13/2009	0.47 J	1.6	< 1.0 U	< 1.0 U	5.7	< 1.0 U	0.68 J	< 1.0 U	0.39 J	15	0.25 J	< 2.0 U
HR-2	9/16/1999	<1.0	3.9	<1.0	<1.0	9.6	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0
HR-2	9/19/2000	<1.0	4.6	<1.0	<1.0	8.6	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0
HR-2	11/7/2001	< 1.0	4.2	< 1.0	< 1.0	8.3	< 1.0	< 1.0	< 1.0	1.1	0.56J	< 1.0	< 1.0
HR-2	9/24/2002	< 1	4.9	< 1	< 1	8.8	< 1	< 1	< 1	1.2	0.46J	< 1	< 1
HR-2	9/16/2003	< 1 U	4.5	< 1 U	< 1 U	7.2	< 1 U	< 1 U	< 1 U	0.96	0.4 J	< 1 U	< 1 U
HR-2	9/16/2004	< 1 U	5.6	< 1 U	< 1 U	7.8	< 1 U	0.37 J	< 1 U	1.1	0.53 J	0.23 J	< 1 U
HR-2	10/20/2005	< 1.0 U	4.4	< 1.0 U	< 1.0 U	5.0	< 1.0 U	< 1.0 U	< 1.0 U	0.78 J	0.35 J	0.29 J	< 2.0 U
HR-2	9/25/2006	< 1 U	5.2	< 1 U	< 1 U	5.6	< 1 U	< 1 U	< 1 U	0.79 J	0.48 J	< 1 U	< 2 U
HR-2	9/26/2007	< 1 U	5.3	< 1 U	< 1 U	5.0	< 1 U	< 1 U	< 1 U	0.76J	0.45J	< 1 U	< 2 U
HR-2	10/1/2008	< 1 U	4.6	< 1 U	< 1 U	3.4	< 1 U	< 1 U	< 1 U	0.47 J	0.36 J	< 1 U	< 2 U
HR-2	11/13/2009	< 1.0 U	5.6	< 1.0 U	< 1.0 U	3.7	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	0.45 J	< 1.0 U	< 2.0 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
HR-3	9/16/1999	<1.0	6.2	<1.0	<1.0	6.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-3	9/19/2000	<1.0	5.1	<1.0	<1.0	4.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-3	11/7/2001	< 1.0	6.9	< 1.0	< 1.0	5.1	< 1.0	< 1.0	< 1.0	0.60	0.66J	< 1.0	< 1.0
HR-3	9/24/2002	< 1	15	< 1	< 1	9.9	< 1	< 1	< 1	1	1.4	< 1	< 1
HR-3	9/16/2003	< 1 U	13	< 1 U	< 1 U	9.9	< 1 U	< 1 U	< 1 U	1.1	1.6	< 1 U	< 1 U
HR-3	9/16/2004	0.27 J	23	< 1 U	< 1 U	18	< 1 U	0.32 J	< 1 U	1.8	8.1	< 1 U	< 1 U
HR-3	10/20/2005	0.34 J	18	< 1.0 U	< 1.0 U	11	< 1.0 U	< 1.0 U	< 1.0 U	1.5	10	< 1.0 U	< 2.0 U
HR-3	9/25/2006	< 1 U	10	< 1 U	< 1 U	8.2	< 1 U	< 1 U	< 1 U	0.99 J	7.2	< 1 U	< 2 U
HR-3	10/2/2008	0.84 J	16	0.27 J	< 1 UJ	17	< 1 U	< 1 U	< 1 U	1.6	32	2.2	< 2 U
GM-30	9/2/1999	<10	53.8J	<10	<10	7.5J	7030J	9.5J	6950J	<10	<10	<10	23300J
GM-30	9/20/2000	<1.0	50.6	<1.0	2.7	<1.0	2290	<1.0	98.9	<1.0	<1.0	<1.0	6770
GM-30	11/13/2001	< 25	31	< 25	< 25	< 12	840	< 25	5.0J	< 12	12J	< 25	2000
GM-30	9/27/2002	< 33	34	< 33	< 33	< 17	350	< 33	< 33	< 17	< 33	< 33	1400
GM-30	9/23/2003	< 120 U	< 120 U	< 120 U	< 120 U	< 62 U	1000	< 120 U	240	< 62 U	< 120 U	< 120 U	7000
GM-30	9/14/2004	< 40 U	33 J	< 40 U	< 40 U	< 20 U	530	< 40 U	< 40 U	< 20 U	< 40 U	< 40 U	3000
GM-30	10/17/2005	< 50 U	23 J	< 50 U	< 50 U	< 50 U	620	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	3800
GM-30	9/20/2006	< 33 U	25 J	< 33 U	< 33 U	< 33 U	570	< 33 U	5.8 J	< 33 U	< 33 U	< 33 U	2500
GM-30	9/26/2007	< 18 U	16 J	< 18 U	< 18 U	< 18 U	380	< 18 U	< 18 U	< 18 U	< 18 U	< 18 U	1300
GM-30	10/6/2008	< 10 U	11	< 10 U	< 10 U	< 10 U	300	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	670
GM-23	9/2/1999	7.2	32.5	17.2	1.9	7530	<1.0	6250	<1.0	54.5	1460	2500	7.0
GM-23	9/20/2000	2.0	16.3	5.1	<1.0	5620	<1.0	3470	<1.0	33.2	609	801	<1.0
GM-23	11/12/2001	< 420	< 420	< 420	< 420	8400	< 420	15000	< 420	< 210	2200	1200	< 420
GM-23	9/26/2002	< 400	< 400	< 400	< 400	7700	< 400	10000	< 400	< 200	1700	540	< 400
GM-23	9/23/2003	< 500 U	< 500 U	< 500 U	< 500 U	5800	< 500 U	12000	< 500 U	< 250 U	1600	690	< 500 U
GM-23	9/14/2004	< 500 U	< 500 U	< 500 U	< 500 U	4600	< 500 U	6700	< 500 U	< 250 U	1100	870	< 500 U
GM-23	10/17/2005	< 560 U	< 560 U	< 560 U	< 560 U	19000	< 560 U	2300	< 560 U	< 560 U	490 J	2800	< 1100 U
GM-23	9/28/2006	< 330 U	< 330 U	< 330 U	< 330 U	11000	< 330 U	370	< 330 U	270 J	95 J	4100	< 670 U
GM-23	9/27/2007	< 200 U	< 200 U	< 200 U	< 200 U	4700	< 200 U	280	< 200 U	130 J	82 J	2600	< 400 U
GM-23	10/23/2008	< 62 U	< 62 U	< 62 U	< 62 U	2000	< 62 U	71	< 62 U	58 J	< 62 U	2100	< 120 U
GM-23	11/17/2009	< 20 U	5.0 J	< 20 U	< 20 U	1100	< 20 U	19 J	< 20 U	31	8.3 J	1100	< 40 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-27	9/1/1999	<1.0	2.4	<1.0	<1.0	20.6	<1.0	1.7	<1.0	<1.0	121	<1.0	<1.0
GM-27	9/20/2000	<1.0	2.2	<1.0	<1.0	13.9	<1.0	1.2	<1.0	<1.0	112	<1.0	<1.0
GM-27	11/13/2001	< 3.3	1.8J	< 3.3	< 3.3	13	< 3.3	6.8	< 3.3	< 1.7	110	< 3.3	< 3.3
GM-27	9/26/2002	< 3.3	1.7J	< 3.3	< 3.3	14	< 3.3	< 3.3	< 3.3	< 1.7	100	< 3.3	< 3.3
GM-27	9/23/2003	< 5 U	1.9 J	< 5 U	< 5 U	12	< 5 U	2.1 J	< 5 U	< 2.5 U	100	< 5 U	< 5 U
GM-27	9/15/2004	< 3.3 U	2 J	< 3.3 U	< 3.3 U	13	< 3.3 U	1.8 J	< 3.3 U	< 1.7 U	81	< 3.3 U	< 3.3 U
GM-27	10/17/2005	< 2.5 U	2.2 J	< 2.5 U	< 2.5 U	14	< 2.5 U	0.94 J	< 2.5 U	0.49 J	76	0.82 J	< 5.0 U
GM-27	9/28/2006	< 2.5 U	2.6	< 2.5 U	< 2.5 U	14	< 2.5 U	1 J	< 2.5 U	1 J	80	< 2.5 U	< 5 U
GM-27	9/27/2007	< 2 U	2.3	< 2 U	< 2 U	12	< 2 U	0.9 J	< 2 U	0.41 J	70	< 2 U	< 4 U
GM-27	10/23/2008	< 1.4 U	2	< 1.4 U	< 1.4 U	11	< 1.4 U	0.9 J	< 1.4 U	0.51 J	57	0.44 J	< 2.9 U
GM-29	9/1/1999	37.8	4.3	1.3	<1.0	320	<1.0	<20	<1.0	11.1	878	3.8	<1.0
GM-29	9/21/2000	24.5	16.6	3.1	<1.0	2871	<1.0	20.0	2.2	14.4	289	788	<1.0
GM-29	11/13/2001	< 50	< 50	< 50	< 50	1800	21J	17J	< 50	26	270	230	52
GM-29	9/25/2002	16J	< 40	< 40	< 40	1300	< 40	18J	< 40	21	310	140	< 40
GM-29	9/24/2003	18 J	< 33 U	< 33 U	< 33 U	1200	< 33 U	18 J	< 33 U	20	390	150	< 33 U
GM-29	9/15/2004	21 J	< 50 U	< 50 U	< 50 U	1200	< 50 U	20 J	< 50 U	21 J	440	230	< 50 U
GM-29	10/17/2005	19 J	18 J	< 50 U	< 50 U	1600	< 50 U	15 J	< 50 U	27 J	390	490	< 100 U
GM-29	9/28/2006	17 J	15 J	< 33 U	< 33 U	1300	< 33 U	15 J	< 33 U	20 J	310	210	< 67 U
GM-29	9/26/2007	15 J	15 J	< 50 U	< 50 U	1200	< 50 U	18 J	< 50 U	19 J	350	290	< 100 U
GM-29	10/6/2008	12 J	11 J	< 33 U	< 33 U	900	< 33 U	17 J	< 33 U	16 J	300	150	< 67 U
GM-29	11/17/2009	18	12	< 10 U	< 10 U	600	< 10 U	21 J	< 10 U	20	370	70	< 20 U
GM-28	9/1/1999	17.7	3.3	<1.0	<1.0	175	<1.0	316	<1.0	9.2	768	3.2	<1.0
GM-28	9/21/2000	5.0	9.9	<1.0	<1.0	37.0	<1.0	2.3	<1.0	22.3	1.6	12.4	<1.0
GM-28	11/15/2001	< 10	< 10	< 10	< 10	< 5.0	< 10	< 10	< 10	11	< 10	< 10	< 10
GM-28	9/24/2002	< 1	2.7	< 1	< 1	1.1	< 1	< 1	< 1.3 U	11	0.86J	< 1	< 1.2 U
GM-28	10/1/2003	< 1 U	3.3	< 1 U	< 1 U	0.58	< 1 U	< 1 U	< 1 U	4	1.6	0.53 J	< 1 U
GM-28	9/15/2004	< 1 U	3.3	< 1 U	< 1 U	0.41 J	< 1 U	0.88 J	< 1 U	1.2	1.4	0.44 J	< 1 U
GM-28	10/18/2005	< 1.0 U	4.0	< 1.0 U	< 1.0 U	0.32 J	< 1.0 U	< 1.0 U	< 1.0 U	0.63 J	0.66 J	1.1	< 2.0 U
GM-28	9/27/2006	< 1 U	4.2	< 1 U	< 1 U	0.26 J	< 1 U	< 1 U	< 1 U	0.66 J	0.43 J	0.42 J	< 2 U
GM-28	9/20/2007	< 1 U	4.6	< 1 U	< 1 U	0.72 J	< 1 U	< 1 U	< 1 U	0.58 J	0.51 J	1.2	< 2 U
GM-28	10/22/2008	< 5 U	2.2 J	< 5 U	< 5 U	6.9	< 5 U	< 5 U	< 5 U	1.3 J	< 5 U	6.5	< 10 U
GM-28	11/16/2009	< 1.0 U	3.6	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	1.7	0.58 J	3.3	< 2.0 U
GM-25	9/22/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GM-25	9/22/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-7	9/17/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	9.8	<1.0	<1.0
HR-7	9/19/2002	< 1.0	< 1.0	< 1.0	< 1.0	0.65	< 1.0	< 1.0	< 1.0	< 0.50	9.4	< 1.0	< 1.0
HR-7	9/19/2002	< 1.0	< 1.0	< 1.0	< 1.0	0.65	< 1.0	< 1.0	< 1.0	< 0.50	9.4	< 1.0	< 1.0
HR-5	9/16/1999	<1.0	<1.0	<1.0	<1.0	10.5	<1.0	<1.0	<1.0	1.1	12.0	<1.0	<1.0
HR-5	9/19/2000	<1.0	<1.0	<1.0	<1.0	5.6	<1.0	<1.0	3.0	<1.0	8.1	<1.0	2.0
HR-5	11/7/2001	0.17J	0.55J	< 1.0	< 1.0	7.8	< 1.0	< 1.0	< 1.0	0.74	11	< 1.0	< 1.0
HR-5	9/23/2002	< 1	0.55J	< 1	< 1	7.5	< 1	< 1	< 1	0.58	13	< 1	< 1
HR-5	9/18/2003	< 1 U	0.42 J	< 1 U	< 1 U	5	< 1 U	< 1 U	< 1 U	0.46 J	11	< 1 U	< 1 U
HR-5	9/13/2004	< 1 U	0.43 J	< 1 U	< 1 U	4.8	< 1 U	< 1 U	< 1 U	0.44 J	11	< 1 U	< 1 U
HR-5	10/18/2005	< 1.0 U	0.54 J	< 1.0 U	< 1.0 U	4.6	< 1.0 U	< 1.0 U	< 1.0 U	0.52 J	13	1.1	< 2.0 U
HR-5	9/22/2006	< 1 UJ	0.41 J	< 1 UJ	< 1 UJ	5.2 J	< 1 UJ	0.27 J	< 1 UJ	0.46 J	13 J	0.22 J	< 2 UJ
HR-5	9/24/2007	< 1 U	0.51J	< 1 U	< 1 U	5.4	< 1 U	< 1 U	< 1 U	0.41J	13	< 1 U	< 2 U
HR-5	9/29/2008	< 1 U	0.48 J	< 1 U	< 1 U	5.4	< 1 U	< 1 U	< 1 U	0.59 J	13	< 1 U	< 2 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
HR-6	9/16/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	<1.0	<1.0
HR-6	9/23/2002	< 1	< 1	< 1	< 1	< 0.5	< 1	< 1	< 1	< 0.5	1.5	< 1	< 1
HR-1	9/16/1999	1.6	2.4	<1.0	<1.0	5.8	<1.0	44.3	<1.0	3.9	56.0	<1.0	<1.0
HR-1	9/25/2000	1.3	2.4	<1.0	<1.0	8.5	<1.0	32.6	<1.0	3.2	56.4	<1.0	<1.0
HR-1	11/8/2001	2.2J	2.8J	< 3.3	< 3.3	9.9	< 3.3	36	< 3.3	2.8	86B	< 3.3	< 3.3
HR-1	9/23/2002	< 2	2.8	< 2	< 2	4.5	< 2	33	< 2	3.2	33	< 2	< 2
HR-1	9/18/2003	1 J	2.6	< 2 U	< 2 U	2.3	< 2 U	27	< 2 U	3.2	56	< 2 U	< 2 U
HR-1	9/13/2004	0.56 J	2.5	< 1 U	< 1 UJ	24	< 1 U	23	< 1 U	2.3	30	0.55 J	< 1 U
HR-1	10/18/2005	1.2	2.7	< 1.0 U	< 1.0 U	19	< 1.0 U	28	< 1.0 U	2.3	43	1.1	< 2.0 U
HR-1	9/25/2006	0.57 J	1.7	< 1.7 U	< 1.7 U	14	< 1.7 U	< 1.7 U	< 1.7 U	1.4 J	50	< 1.7 U	< 3.3 U
HR-1	9/24/2007	0.45J	2.2	0.21J	< 1 U	9.5	< 1 U	20	< 1 U	1.9	40	< 1 U	< 2 U
HR-1	9/29/2008	0.77 J	1.8 J	< 2.5 U	< 2.5 U	5	< 2.5 U	27	< 2.5 U	2 J	70	< 2.5 U	< 5 U
W-1-S	9/22/1999	<1.0	<1.0	<1.0	<1.0	8.0	<1.0	30.9	<1.0	1.1	11.6	<1.0	<1.0
W-1-S	9/19/2002	< 2.0	0.97J	< 2.0	< 2.0	6.0	< 2.0	62	< 2.0	1.3	16	< 2.0	< 2.0
W-1-S	9/19/2002	< 2.0	0.97J	< 2.0	< 2.0	6.0	< 2.0	62	< 2.0	1.3	16	< 2.0	< 2.0
ME-6	8/31/1999	2.9	<1.0	<1.0	<1.0	255	<1.0	213	<1.0	<1.0	474	<1.0	<1.0
ME-6	9/21/2000	<1.0	<1.0	<1.0	<1.0	98.8	<1.0	6.7	1.9	2.5	19.0	6.1	<1.0
ME-6	11/15/2001	2.2	2.7	< 2.0	< 2.0	65	< 2.0	8.2	0.42J	1.8	23	13	< 2.0
ME-6	9/25/2002	< 10	< 10	< 10	< 10	5.2	< 10	< 10	6.6J	< 5	< 10	< 10	< 10
ME-6	10/1/2003	13	7.2	< 2 U	0.46 J	20	< 2 U	12	< 2 U	< 1 U	31	2.9	< 2 U
ME-6	9/15/2004	4.1	6.3	0.26 J	< 1 U	14	< 1 U	5.3	< 1 U	0.56	9.2	2.4	< 1 U
ME-6	10/18/2005	2.2	7.0	< 1.0 U	< 1.0 U	13	< 1.0 U	9.8	< 1.0 U	0.93 J	25	5.6	< 2.0 U
ME-6	9/27/2006	1.4	6.3	< 1.4 U	< 1.4 U	27	< 1.4 U	13	< 1.4 U	1.3 J	32	11	< 2.9 U
ME-6	9/20/2007	0.61 J	6.4	< 1 U	< 1 U	9.2	< 1 U	4.5	< 1 U	0.51 J	12	4.5	< 2 U
ME-6	10/22/2008	2.7	11	< 1 U	< 1 U	5.2	< 1 U	7.7	< 1 U	0.25 J	9	1.7	< 2 U
ME-1	8/31/1999	13.5	2.4	<1.0	<1.0	38.2	<1.0	83.6	<1.0	1.5	292	36	<1.0
GM-31	9/1/1999	<1.0	1.3	<1.0	<1.0	7.8	<1.0	1.3	<1.0	<1.0	27.2	<1.0	<1.0
GM-31	9/21/2000	<1.0	1.1	<1.0	<1.0	40.2	<1.0	<1.0	<1.0	<1.0	8.5	<1.0	<1.0
GM-31	11/15/2001	< 4.0	3.1J	< 4.0	< 4.0	120	< 4.0	< 4.0	< 4.0	1.8J	11	7.4	< 4.0
GM-31	9/24/2002	< 6	5.9J	< 6	< 6	200	< 6	< 6	< 6	3.5	10	19	< 6
GM-31	10/1/2003	< 5 U	6	< 5 U	< 5 U	170	< 5 U	< 5 U	< 5 U	3.5	28	10	< 5 U
GM-31	9/15/2004	1.4 J	4 J	< 5 U	< 5 U	120	< 5 U	2.5 J	< 5 U	2.7	29	2.4 J	< 5 U
GM-31	10/18/2005	3.4	6.2	0.42 J	< 2.0 U	120	< 2.0 U	< 2.0 U	< 2.0 U	3.7	67	3.1	< 4.0 U
GM-31	9/27/2006	2.3 J	5.1	< 4 U	< 4 U	110	< 4 U	< 4 U	< 4 U	2.9 J	65	1.2 J	< 8 U
GM-31	9/20/2007	3.7	4.8	< 3.3 U	< 3.3 U	100	< 3.3 U	< 3.3 U	< 3.3 U	2.8 J	90	1.1 J	6.7 U
GM-31	10/23/2008	2.9	3.2	< 2.5 U	< 2.5 U	76	< 2.5 U	< 2.5 U	< 2.5 U	3	78	0.9 J	< 5 U
ME-3	8/31/1999	42.5	6.1	<1.0	<1.0	5.7	<1.0	57.9	<1.0	<1.0	47.5	<1.0	<1.0
ME-3	9/21/2000	6.4	3.4	<1.0	<1.0	2.9	<1.0	<1.0	1.4	2.9	<1.0	2.1	<1.0
ME-3	11/15/2001	1.6	5.9	< 1.0	< 1.0	16	< 1.0	1.3	0.34J	2.7	3.8	7.3	< 1.0
ME-3	9/24/2002	< 2.5	< 2.5	< 2.5	< 2.5	< 1.2	< 2.5	< 2.5	< 2.5	< 1.2	< 2.5	< 2.5	< 2.5
ME-3	10/1/2003	0.31 J	24	< 1 U	0.6 J	0.96	< 1 U	< 1 U	< 1 U	< 0.5 U	1.5	< 1 U	< 1 U
ME-3	9/15/2004	0.53 J	18	< 1 U	< 1 U	2.2	< 1 U	0.21 J	< 1 U	< 0.5 U	1.5	1.1	< 1 U
ME-3	10/18/2005	1.6	15	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.9	1.6	< 2.0 U
ME-3	9/27/2006	1.1	8.5	< 1 U	< 1 U	3.5	< 1 U	1.9	< 1 U	0.34 J	2.4	2.2	< 2 U
ME-3	9/20/2007	2	3.8	< 1 U	< 1 U	1.2	< 1 U	5.2	< 1 U	< 1 U	3.6	0.82 J	< 2 U
ME-3	10/22/2008	2.1	1.8	< 1 U	< 1 U	1.4	< 1 U	8.1	< 1 U	< 1 U	4.9	0.7 J	< 2 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-43	9/22/2006	< 5 UJ	3.7 J	< 5 UJ	< 5 UJ	120 J	< 5 UJ	21 J	< 5 UJ	5.7 J	98 J	< 5 UJ	< 10 UJ
GM-43	11/17/2009	2.5	5.7	0.74 J	<2.5 U	150	<2.5 U	28 J	<2.5 U	6.2	180	1.0 J	<5.0 U
GM-45	9/22/2006	3.5 J	3.1 J	< 8 UJ	< 8 UJ	54 J	< 8 UJ	230 J	< 8 UJ	2.7 J	230 J	< 8 UJ	< 16 UJ
HR-16	9/23/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.7	<1.0	<1.0
HR-16	9/18/2002	< 1.0	< 1.0	< 1.0	< 1.0	0.46J	< 1.0	< 1.0	< 1.0	< 0.50	1.5	< 1.0	< 1.0
HR-17	9/23/1999	<1.0	<1.0	<1.0	<1.0	6.2	<1.0	15.5	<1.0	<1.0	7.4	<1.0	<1.0
HR-17	9/28/2000	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	4.4	<1.0	<1.0
HR-17	11/8/2001	1.4	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	3.3	< 1.0	< 0.50	4.2B	< 1.0	< 1.0
HR-17	9/18/2002	0.39J	1.5	< 1.0	< 1.0	5.1	< 1.0	22	< 1.0	1.4	12	< 1.0	< 1.0
HR-17	9/25/2003	< 2 U	0.75 J	< 2 U	< 2 U	2.2	< 2 U	64	< 2 U	0.7 J	10	< 2 U	< 2 U
HR-17	9/17/2004	< 5 U	2 J	< 5 U	< 5 U	7.1	< 5 U	82	< 5 U	1.6 J	18	< 5 U	< 5 U
HR-17	10/19/2005	< 1.8 U	0.70 J	< 1.8 U	< 1.8 U	3.1	< 1.8 U	45	< 1.8 U	0.57 J	8.3	< 1.8 U	< 3.7 U
HR-17	9/18/2006	< 1 U	0.6 J	< 1 U	< 1 U	4.6	< 1 U	34	< 1 U	0.46 J	5.6	< 1 U	< 2 U
HR-17	9/25/2007	< 2.5 U	1.2 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	51	< 2.5 U	0.69 J	16	< 2.5 U	< 5 U
HR-17	9/26/2008	< 4 U	1.1 J	< 4 U	< 4 U	2.7 J	< 4 U	120	< 4 U	1 J	31	< 4 U	< 8 U
HR-17	11/12/2009	< 2.5 U	1.7 J	< 2.5 U	< 2.5 U	1.9 J	< 2.5 U	85	< 2.5 U	1.3 J	21	< 2.5 U	< 5.0 U
W-2-S	9/23/1999	1.9J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.1	<1.0	<1.0
W-2-S	9/27/2000	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0	<1.0	<1.0
W-2-S	11/8/2001	1.7	0.58J	< 1.0	< 1.0	0.49J	< 1.0	< 1.0	< 1.0	< 0.50	5.2B	< 1.0	< 1.0
W-2-S	9/18/2002	1.5	0.98J	< 1.0	< 1.0	0.90	< 1.0	< 1.0	< 1.0	< 0.50	4.9	< 1.0	< 1.0
W-2-S	9/26/2003	1.4	0.99 J	< 1 U	< 1 U	0.74	< 1 U	< 1 U	0.25 J	< 0.5 U	5.5	< 1 U	< 1 U
W-2-S	9/17/2004	1.5	1.3	< 1 U	< 1 U	1.1	< 1 U	0.55 J	< 1 U	< 0.5 U	6	< 1 U	< 1 U
W-2-S	10/19/2005	1.6	1.2	< 1.0 U	< 1.0 U	0.78 J	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U	5.4	< 1.0 U	< 2.0 U
W-2-S	9/18/2006	1.8	1.2	< 1 U	< 1 U	1.2	< 1 U	< 1 U	< 1 U	< 1 U	5.1	< 1 U	< 2 U
W-2-S	9/24/2007	1.4	1.1	< 1 U	< 1 U	0.89 J	< 1 U	< 1 U	< 1 U	< 1 U	5.3	< 1 U	< 2 U
W-2-S	9/25/2008	1.4	0.92 J	< 1 U	< 1 U	0.78 J	< 1 U	< 1 U	< 1 U	< 1 U	5.2	< 1 U	< 2 U
W-2-S	11/12/2009	1.7	1.2	< 1.0 U	0.43 J	0.9 J	< 1.0 UJ	0.35 J	< 1.0 U	< 1.0 U	6.6	< 1.0 U	< 2.0 U
W-3-S	9/23/1999	3.9	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	2.6	<1.0	<1.0
W-3-S	9/28/2000	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0
W-3-S	11/8/2001	1.6	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	0.44J	< 1.0	< 0.50	1.5B	< 1.0	< 1.0
W-3-S	9/18/2002	2.1	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	0.61J	< 1.0	< 0.50	2.4	< 1.0	< 1.0
W-3-S	9/26/2003	1.8	< 1 U	< 1 U	< 1 U	0.34 J	< 1 U	0.81 J	< 1 U	< 0.5 U	2	< 1 U	< 1 U
W-3-S	9/17/2004	2.4	0.21 J	< 1 U	< 1 U	< 0.5 U	< 1 U	1.2	< 1 U	< 0.5 U	2.9	< 1 U	< 1 U
W-3-S	10/19/2005	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	2.9	< 1.0 U	< 2.0 U
W-3-S	9/18/2006	2.5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.6 J	< 1 U	< 1 U	3.4	< 1 U	< 2 U
W-3-S	9/24/2007	1.4	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.72 J	< 1 U	< 1 U	2	< 1 U	< 2 U
W-3-S	9/26/2008	1.2	0.21 J	< 1 U	< 1 U	0.52 J	< 1 U	1.3	< 1 U	< 1 U	2.1	< 1 U	< 2 U
W-3-S	11/12/2009	1.2	< 1.0 U	< 1.0 U	< 1.0 U	0.33 J	< 1.0 UJ	0.87 J	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U

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		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
W-4-S	9/23/1999	3.3	1.2	<1.0	<1.0	4.4	<1.0	30.5J	<1.0	<1.0	14.7J	<1.0	<1.0
W-4-S	9/28/2000	3.0	1.0	<1.0	<1.0	4.0	<1.0	15.4	<1.0	<1.0	11.3	<1.0	<1.0
W-4-S	11/8/2001	2.9	1.1	< 1.0	< 1.0	3.3	< 1.0	13	< 1.0	0.43J	8.9B	< 1.0	< 1.0
W-4-S	9/18/2002	2.3	0.87J	< 1.0	< 1.0	3.6	< 1.0	17	< 1.0	0.60	9.8	< 1.0	< 1.0
W-4-S	9/26/2003	2	0.92 J	< 1 U	< 1 U	3.6	< 1 U	24	0.25 J	0.78	13	< 1 U	< 1 U
W-4-S	9/17/2004	2.3	1.2	< 1 U	< 1 U	4.4	< 1 U	18	< 1 U	0.97	13	< 1 U	< 1 U
W-4-S	10/19/2005	2.4	1.4	< 1.0 U	< 1.0 U	4.3	< 1.0 U	20	< 1.0 U	1.1	13	< 1.0 U	< 2.0 U
W-4-S	9/19/2006	1.7	1.3	< 1 U	< 1 U	4.3	< 1 U	18	< 1 U	1	12	< 1 U	< 2 U
W-4-S	9/24/2007	1.5	1.8	< 1 U	< 1 U	5.9	< 1 U	26	< 1 U	1.3	16	< 1 U	< 2 U
W-4-S	9/26/2008	0.95 J	1.3	0.21 J	< 1 U	6	< 1 U	32	< 1 U	1.2	16	< 1 U	< 2 U
W-4-S	11/12/2009	1.3	1.6	< 1.0 U	< 1.0 U	9.1	< 1.0 U	39	< 1.0 U	1.5	23	< 1.0 U	< 2.0 U
GM-19S	9/20/1999	16.0	7.7	1.0	<1.0	34.6	<10	46.0	<1.0	2.3	71.1	<1.0	<10
GM-19S	9/22/2000	14.5	4.4	<1.0	<1.0	37.6	<1.0	68.0	<1.0	2.6	104	<1.0	<1.0
GM-19S	11/12/2001	7.6	2.9J	< 3.3	< 3.3	26	< 3.3	64	< 3.3	2.0	97	< 3.3	< 3.3
GM-19S	9/26/2002	6.3	6.3	< 4	< 4	39	< 4	52	< 4	2.7	110	5.2	< 4
GM-19S	9/25/2003	13	8.3	1.6 J	< 5 U	89	< 5 U	62	< 5 U	2.9	140	< 5 U	< 5 U
GM-19S	9/13/2004	14	8.1	1.9 J	< 4 U	61	< 4 U	71	< 4 U	2.4	120	< 4 U	< 4 U
GM-19S	10/18/2005	13	9.0	1.2 J	< 1.7 U	29	< 1.7 U	95	< 1.7 U	1.0 J	140	1.8	< 3.3 U
GM-19S	9/21/2006	9.7 J	7 J	< 22 U	< 22 U	660	< 22 U	9.1 J	< 22 U	10 J	11 J	< 22 U	< 44 U
GM-19S	9/17/2007	0.59 J	10	< 1 U	< 1 U	0.3 J	< 1 U	1.5	< 1 U	0.29 J	0.46 J	< 1 U	< 2 U
GM-19S	9/23/2008	< 1 U	13	< 1 U	< 1 U	0.68 J	< 1 U	0.94 J	< 1 U	0.52 J	3	9.3	< 2 U
GM-19S	11/17/2009	< 1.0 U	12	< 1.0 U	< 1.0 U	0.27 J	< 1.0 U	< 1.0 U	< 1.0 U	0.37 J	0.22 J	< 1.0 U	< 2.0 U
EAST	9/21/1999	21.0	5.4	<1.0	<1.0	9.1	<1.0	61.0	<1.0	<1.0	56.1	<1.0	<1.0
EAST	9/22/2000	22.2	7.7	1.2	<1.0	77.3	<1.0	55.8	<1.0	1.8	97.2	3.0	<1.0
EAST	11/12/2001	13	6.2	0.90J	< 3.3	51	< 3.3	56	< 3.3	2.7	92	1.5J	< 3.3
EAST	9/23/2002	10	3.9	0.73J	< 2	8.8	< 2	49	< 2	< 1	46	< 2	< 2
EAST	9/25/2003	7.1	2.3	< 2 U	< 2 U	4.3	< 2 U	47	< 2 U	< 1 U	35	< 2 U	< 2 U
EAST	9/13/2004	5.7	0.72 J	0.34 J	< 1 U	1.6	< 1 U	40	< 1 U	< 0.5 U	23	< 1 U	< 1 U
EAST	10/18/2005	5.9	3.0	< 1.0 U	< 1.0 U	3.1	< 1.0 U	47	< 1.0 U	< 1.0 U	23	1.2	< 2.0 U
EAST	9/21/2006	10	3.2	0.59 J	< 1.4 U	4.1	< 1.4 U	41	< 1.4 U	< 1.4 U	29	< 1.4 U	< 2.9 U
WEST	9/21/1999	24.8	25.6	<1.0	<1.0	125	<1.0	41.3	<1.0	<1.0	37.3	<1.0	<1.0
GM-33	9/25/2003	21	8.4	1 J	< 2.5 U	19	< 2.5 U	37	< 2.5 U	0.72 J	75	< 2.5 U	< 2.5 U
GM-33	9/13/2004	17	5.4	1.1 J	< 2 U	9.5	< 2 U	37	< 2 U	0.45 J	55	< 2 U	< 2 U
GM-33	10/18/2005	18	6.4	0.69 J	< 1.0 U	7.4	< 1.0 U	50	< 1.0 U	0.36 J	71	1.0	< 2.0 U
GM-33	9/21/2006	18	4.5	1.1 J	< 1.7 U	6.9	< 1.7 U	37	< 1.7 U	0.44 J	64	< 1.7 U	< 3.3 U
GM-33	9/24/2007	15	4.9	0.68 J	< 1.7 U	5.5	< 1.7 U	32	< 1.7 U	0.34 J	49	< 1.7 U	< 3.3 U
GM-33	10/23/2008	8.4	2.9	0.58 J	< 1.4 U	4.1	< 1.4 U	38	< 1.4 U	< 1.4 U	36	< 1.4 U	< 2.9 U
GM-35	9/25/2003	17	46	4 J	< 8 U	300	< 8 U	21	< 8 U	12	270	59	< 8 U
GM-35	9/13/2004	17	36	4.1 J	< 11 U	270	< 11 U	21	< 11 U	9.1	230	50	< 11 U
GM-35	10/18/2005	12	36	1.8 J	< 5.0 U	190	< 5.0 U	29	< 5.0 U	9.3	240	23	< 10 U
GM-35	9/22/2006	5.5 J	26 J	< 5 UJ	< 5 UJ	160 J	< 5 UJ	14 J	< 5 UJ	11 J	130 J	13 J	< 10 UJ
GM-35	9/24/2007	5.8 J	26	< 10 U	< 10 U	140	< 10 U	22	< 10 U	8 J	110	12	< 20 U
GM-35	9/29/2008	4.6 J	20	< 10 U	< 10 U	92	< 10 U	20	< 10 U	9.4 J	88	7.9 J	< 20 U
GM-35	11/13/2009	4.7	17	1.0 J	< 3.3 U	74	< 3.3 U	33	< 3.3 U	8.2	120	4.6	< 6.7 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-32	9/22/1999	<1.0	3.3	<1.0	<1.0	2.6	<1.0	1.2	1.0	4.2	3.2	3.0	<1.0
GM-32	9/25/2000	<1.0	35.9	<1.0	<1.0	<1.0	<1.0	<1.0	10.4	20.3	<1.0	<1.0	<1.0
GM-32	11/12/2001	< 5.0	6.2	< 5.0	4.3J	< 2.5	0.79J	< 5.0	12	2.9	< 5.0	1.1J	3.0J
GM-32	9/20/2002	< 10	9.7J	< 10	< 10	< 5	< 10	< 10	< 10	< 5	< 10	< 10	< 10
GM-32	10/1/2003	< 2 U	5.5	< 2 U	1.5 J	< 1 U	< 2 U	< 2 U	< 2 U	1	< 2 U	< 2 U	< 2 U
GM-32	9/14/2004	< 10 U	3 J	< 10 U	< 10 U	< 5 U	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U	< 10 U	< 10 U
GM-32	10/19/2005	< 10 U	4.9 J	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 20 U
GM-32	9/19/2006	< 10 U	3.7 J	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 20 U
GM-32	9/18/2007	< 5 U	4.3 J	< 5 U	1.6 J	< 5 U	< 5 U	< 5 U	< 5 U	1 J	< 5 U	< 5 U	3.4 J
GM-32	9/23/2008	< 10 U	4 J	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 20 U
GM-22	9/1/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0	4.0	<1.0	<1.0
GM-22	9/21/2000	<1.0	2.4	<1.0	<1.0	1.9	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0
GM-22	11/13/2001	4.4	6.8	0.58J	< 1.0	8.5	< 1.0	4.9	< 1.0	0.17J	7.5	0.60J	< 1.0
GM-22	9/25/2002	0.93J	< 2	< 2	< 2	< 1	< 2	2.3	< 2	< 1	7.6	< 2	< 2
GM-22	9/24/2003	1.2	1	< 1 U	< 1 U	0.45 J	< 1 U	2.9	< 1 U	< 0.5 U	7.6	< 1 U	< 1 U
GM-22	9/14/2004	1.7	2.1	< 1 U	< 1 U	0.9	< 1 U	2.9	< 1 U	< 0.5 U	10	< 1 U	< 1 U
GM-22	10/17/2005	0.96 J	1.0	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	3.6	< 1.0 U	< 1.0 U	4.7	< 1.0 U	< 2.0 U
GM-22	9/20/2006	0.47 J	1.1	< 1 U	< 1 U	0.28 J	< 1 U	3.2	< 1 U	< 1 U	3	< 1 U	< 2 U
GM-22	9/26/2007	0.66 J	0.72 J	< 1 U	< 1 U	0.24 J	< 1 U	3.3	< 1 U	< 1 U	3.3	< 1 U	< 2 U
GM-22	10/3/2008	0.73 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	5.7	< 1 U	< 1 U	5.7	< 1 U	< 2 U
GM-21	9/22/1999	53.1	9.0	3.9	<1.0	66.4	<1.0	<1.0	<1.0	7.8	28.7	<1.0	<1.0
GM-21	9/22/2000	15.7	5.6	1.6	<1.0	38.7	<1.0	<1.0	<1.0	12.9	189	<1.0	<1.0
GM-21	11/13/2001	6.9	3.8J	< 5.0	< 5.0	39	< 5.0	< 5.0	< 5.0	15	160	< 5.0	< 5.0
GM-21	9/25/2002	31	5J	2.6J	< 6.7	43	< 6.7	< 6.7	< 6.7	5.1	230	< 6.7	< 6.7
GM-21	9/24/2003	31	6.9 J	2 J	< 8 U	100	< 8 U	< 8 U	< 8 U	2.9 J	200	< 8 U	< 8 U
GM-21	9/14/2004	26	4.2 J	3.1 J	< 9.1 U	56	< 9.1 U	< 9.1 U	< 9.1 U	7.9	180	< 9.1 U	< 9.1 U
GM-21	10/17/2005	4.3	3.4	< 1.0 U	< 1.0 U	20	< 1.0 U	< 1.0 U	< 1.0 U	22	1.8	13	< 2.0 U
GM-21	9/20/2006	12	8.6	0.19 J	< 1 U	14	< 1 U	< 1 U	< 1 U	4.3	5.9	9.3	< 2 U
GM-21	9/26/2007	8.5	18	<1.4 U	<1.4 U	26	<1.4 U	<1.4 U	<1.4 U	2.5	2.8	12	< 2.9 U
GM-21	10/3/2008	8.7	15	0.33 J	< 1.4 U	38	< 1.4 U	0.56 J	< 1.4 U	4.7	18	19	< 2.9 U
GM-21	11/16/2009	2.4	22	< 1.0 U	< 1.0 U	7.8	< 1.0 U	< 1.0 U	< 1.0 U	4.4	2.4	6.6	< 2.0 U
GM-8	9/20/1999	1.9	30.2	<1.0	3.4	26.2	20.7	14.8	<1.0	12.0	30.4	8.4	2.3
GM-8	9/26/2000	<1.0	36.5	<1.0	1.1	1.5	12.5	<1.0	<1.0	5.4	6.6	2.4	1.9
GM-8	11/9/2001	0.40J	40	< 1.0	0.78J	2.0	0.40J	< 1.0	< 1.0	3.6	4.4	1.9	0.39J
GM-8	9/20/2002	< 2	63	< 2	5.5	5.5	7.5	< 2	1.8J	9	< 2	5.8	1.5J
GM-8	10/1/2003	< 2 U	48	< 2 U	5.4	< 1 U	11	< 2 U	< 2 U	4.4	< 2 U	< 2 U	< 2 U
GM-8	9/14/2004	< 1 U	15	< 1 U	4.2	< 0.5 U	19	< 1 U	< 1 U	1.1	< 1 U	0.48 J	1.1
GM-8	10/19/2005	< 1.0 U	16	< 1.0 U	3.5	0.24 J	29	< 1.0 U	0.39 J	0.99 J	< 1.0 U	0.73 J	< 2.0 U
GM-8	9/19/2006	< 5 U	18	< 5 U	2.1 J	2.1 J	< 5 U	< 5 U	< 5 U	1 J	< 5 U	3.2 J	< 10 U
GM-8	9/18/2007	< 2 U	9.1	< 2 U	2.4	< 2 U	1.7 J	< 2 U	< 2 U	0.9 J	< 2 U	< 2 U	0.9 J
GM-8	9/23/2008	< 1 U	1.7	< 1 U	6.8	< 1 U	8.6	< 1 U	< 1 U	0.27 J	< 1 U	0.48 J	3.9
GM-8	11/16/2009	<1.0 U	2.9	<1.0 U	3.9	<1.0 U	5.5	0.34 J	0.13 J	0.22 J	<1.0 U	<1.0 U	1.3 J

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-6	9/20/1999	24.6	33.2	1.2	<1.0	52.9	<10	81.4	<1.0	2.0	78.2	1.6	<10
GM-6	9/26/2000	12.1	13.0	<1.0	<1.0	41.0	<1.0	51.5	<1.0	2.2	56.6	3.7	<1.0
GM-6	11/9/2001	3.9	14	< 2.0	< 2.0	8.2	< 2.0	14	< 2.0	1.8	48	1.9J	< 2.0
GM-6	9/20/2002	1.4J	60	< 2	2.2	43	< 2	14	< 2	8.6	33	12	< 2
GM-6	10/2/2003	0.19 J	20	< 1 U	1	13	0.22 J	11	< 1 U	2.5	23	3.3	< 1 U
GM-6	9/14/2004	< 1 U	18	< 1 U	1.7	10	< 1 U	2.6	< 1 U	1.9	5.7	3	< 1 U
GM-6	10/19/2005	< 1.0 U	21	< 1.0 U	0.49 J	20	< 1.0 U	0.34 J	< 1.0 U	2.1	1.4	11	< 2.0 U
GM-6	9/19/2006	< 1 U	16	< 1 U	< 1 U	18	< 1 U	< 1 U	< 1 U	1.6	0.35 J	7.3	< 2 U
GM-6	9/18/2007	< 1 U	26	< 1 U	0.42 J	16	< 1 U	< 1 U	< 1 U	2.6	0.34 J	6.7	< 2 U
GM-6	9/24/2008	< 1 U	< 8.4 U	< 1 U	1.2	6.7	< 1 U	< 1 U	< 1 U	1.3	< 1 U	2.1	< 2 U
GM-6	11/11/2009	<1.0 U	6.9	<1.0 U	1.3	3.4	<1.0 U	<1.0 U	<1.0 U	0.68 J	3.8	1.2	<2.0 U
GM-53	9/14/2006	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-59	10/3/2008	< 33 U	< 33 U	< 33 U	< 33 U	41	< 33 U	750	< 33 U	< 33 U	750	< 33 U	< 67 U
GM-59	11/17/2009	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	3.3 J	< 6.7 U	500 J	< 6.7 U	< 6.7 U	170	< 6.7 U	< 13 U
GM-60	10/3/2008	< 25 U	< 25 U	< 25 U	< 25 U	360	< 25 U	900	< 25 U	< 25 U	920	< 25 U	< 50 U
GM-60	11/17/2009	< 20 U	< 20 U	< 20 U	< 20 U	160	< 20 U	1100 J	< 20 U	< 20 U	1400	< 20 U	< 40 U
GM-75S	10/6/2008	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	690	< 20 U	< 20 U	250	< 20 U	< 40 U
GM-75S	11/16/2009	< 10 U	< 10 U	< 10 U	< 10 U	4.9 J	< 10 U	640	< 10 U	< 10 U	260	< 10 U	< 20 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
Downgradient of the Site													
TW-2	9/26/2000	4.5	27.8	<1.0	<1.0	22.5	10.4	5.0	<1.0	2.9	43.1	5.9	3.2
TW-2	11/9/2001	3.9	20	< 2.0	< 2.0	8.8	0.38J	8.5	< 2.0	2.4	48	2.7	< 2.0
TW-2	9/20/2002	2.2	9	< 2	< 2	26	< 2	5.9	< 2	1.4	70	2.5	< 2
TW-2	10/2/2003	0.66 J	5.7	< 1 U	1.5	8.3	0.86 J	4.7	< 1 U	0.59	24	1.4	< 1 U
TW-2	9/14/2004	< 1 U	22	< 1 U	2.9	5.5	< 1 U	< 1 U	< 1 U	2	1.5	2.5	< 1 U
TW-2	10/20/2005	< 1.0 U	12	< 1.0 U	2.5	5.3	12	< 1.0 U	3.4	1.4	< 1.0 U	4.4	5.0
TW-2	9/19/2006	0.55 J	3.4	< 1 U	< 1 U	11	< 1 U	7	< 1 U	0.38 J	32	0.27 J	< 2 U
TW-2	9/18/2007	< 1 U	1.7	< 1 U	0.81 J	7.9	< 1 U	1.9	< 1 U	0.25 J	24	0.97 J	< 2 U
TW-2	9/24/2008	< 1 U	< 1.9 U	< 1 U	1.4	< 5.2 U	0.76 J	1.4	< 1 U	0.36 J	7.5	1	< 2 U
TW-2	11/11/2009	< 2.5 U	1.1 J	< 2.5 U	< 2.5 U	1.6 J	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	1.1 J	< 2.5 U	< 5.0 U
4S	9/20/1999	<1.0	1.6	<1.0	1.6	<1.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<10
4S	10/2/2003	< 2 U	7	< 2 U	1.6 J	< 1 U	1.7 J	< 2 U	< 2 U	1.7	< 2 U	< 2 U	< 2 U
4S	9/14/2004	< 5 U	7.5	< 5 U	4.5 J	< 2.5 U	4.7 J	< 5 U	1.1 J	< 2.5 U	< 5 U	< 5 U	2.4 J
4S	10/19/2005	< 4.0 U	2.3 J	< 4.0 U	1.6 J	< 4.0 U	1.6 J	< 4.0 U	< 4.0 U	0.95 J	< 4.0 U	< 4.0 U	< 8.0 U
4S	9/20/2006	< 1 U	5.6	< 1 U	0.7 J	0.25 J	0.52 J	< 1 U	< 1 U	0.75 J	< 1 U	< 1 U	< 2 U
GM-2	9/20/1999	5.5	1.4	<1.0	<1.0	8.4	<10	6.0	<1.0	<1.0	61.6	<1.0	<10
GM-2	9/25/2000	5.7	3.7	<1.0	<1.0	39.2	<1.0	7.7	<1.0	1.3	82.8	1.7	<1.0
GM-2	11/9/2001	6.1	6.1	< 3.3	< 3.3	26	< 3.3	8.4	< 3.3	1.1J	65	< 3.3	< 3.3
GM-2	9/20/2002	0.75J	3.4	< 1	< 1	7.6	< 1	8.7	< 1	0.37J	26	< 1	< 1
GM-2	10/2/2003	0.21 J	1.7	< 1 U	< 1 U	4.7	0.21 J	5.7	< 1 U	< 0.5 U	13	0.46 J	< 1 U
GM-2	9/14/2004	< 1 U	1.6	< 1 U	< 1 U	5.6	< 1 U	4	< 1 U	0.23 J	6.2	< 1 U	< 1 U
GM-2	10/19/2005	< 1.0 U	2.0	< 1.0 U	< 1.0 U	6.8	< 1.0 U	3.6	< 1.0 U	0.26 J	4.6	0.24 J	< 2.0 U
GM-2	9/20/2006	< 1 U	2.1	< 1 U	< 1 U	7.7	< 1 U	2.6	< 1 U	0.34 J	5.1	0.61 J	< 2 U
GM-2	9/18/2007	< 1 U	1.4	< 1 U	< 1 U	4.9	< 1 U	1.6	< 1 U	0.28 J	2.3	1.1	< 2 U
GM-2	9/24/2008	< 1 U	< 1.1 U	< 1 U	< 1 U	6.7	< 1 U	1.3	< 1 U	0.19 J	2.4	< 1 U	< 2 U
GM-2	11/11/2009	<1.0 U	1	<1.0 U	<1.0 U	3.2	<1.0 U	0.90 J	<1.0 U	<1.0 U	1.4	2.3	<2.0 U
GM-16	9/21/1999	2.2	<1.0	<1.0	<1.0	1.7	<1.0	44.1	<1.0	<1.0	8.5	<1.0	<1.0
GM-16	9/26/2000	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	16.2	<1.0	<1.0	3.5	<1.0	<1.0
GM-16	11/8/2001	2.2	0.31J	< 1.0	< 1.0	0.39J	< 1.0	17	< 1.0	< 0.50	3.6	< 1.0	< 1.0
GM-16	9/24/2002	1.4J	4.1	< 2	< 2	6.2	< 2	63	< 2	1.6	28	< 2	< 2
GM-16	9/22/2003	1.9 J	2.8 J	< 4 U	< 4 U	5.8	< 4 U	110	< 4 U	1.1 J	57	< 4 U	< 4 U
GM-16	9/16/2004	3.1 J	4.3	< 3.3 U	< 3.3 U	7.4	< 3.3 U	130	< 3.3 U	1 J	90	< 3.3 U	< 3.3 U
GM-16	10/19/2005	1.7 J	1.1 J	< 3.3 U	< 3.3 U	2.8 J	< 3.3 U	100	< 3.3 U	0.90 J	55	< 3.3 U	< 6.7 U
GM-16	9/18/2006	2.1	1.1 J	< 1.4 U	< 1.4 U	3.8	< 1.4 U	98	< 1.4 U	1 J	51	< 1.4 U	< 2.9 U
GM-16	9/25/2007	1.4 J	1.5 J	< 4 U	< 4 UJ	43	< 4 U	94	< 4 U	1.3 J	52	< 4 U	< 8 U
GM-16	9/30/2008	1.8 J	3.8	< 3.3 U	< 3.3 U	20	< 3.3 U	100	< 3.3 U	1.1 J	48	< 3.3 U	< 6.7 U
GM-16	11/16/2009	1.4 J	1.6 J	< 3.3 U	< 3.3 U	12	< 3.3 U	110	< 3.3 U	1.5 J	74	< 3.3 U	< 6.7 U
GM-17	9/21/1999	6.4	26.4	<1.0	<1.0	30.0	<1.0	<1.0	<1.0	2.6	28.7	1.4	<1.0
GM-17	9/27/2000	6.7	23.9	<1.0	<1.0	41.6	<1.0	24.6	<1.0	2.5	48.4	<1.0	<1.0
GM-17	11/8/2001	6.8	7.3	< 3.3	< 3.3	16	< 3.3	48	< 3.3	1.8	79	< 3.3	< 3.3
GM-17	9/19/2002	2.3	6.0	< 1.2	< 1.2	13	< 1.2	22	< 1.2	0.67	39	0.79J	< 1.2
GM-17	9/24/2003	1.3	1.2	< 1 U	< 1 U	2.9	< 1 U	12	< 1 U	< 0.5 U	24	< 1 U	< 1 U
GM-17	9/15/2004	1.1	4	< 1 U	< 1 U	11	< 1 U	3.6	< 1 U	0.64	22	0.49 J	< 1 U
GM-17	10/20/2005	1.4	5.5	< 1.0 U	< 1.0 U	9.0	< 1.0 U	8.1	< 1.0 U	0.57 J	29	2.0	< 2.0 U
GM-17	9/27/2006	0.46 J	3.2	< 1 U	< 1 U	9.5	< 1 U	11	< 1 U	0.49 J	24	0.54 J	< 2 U
GM-17	9/18/2007	0.31 J	1.5	< 1 U	< 1 U	4	< 1 U	7.3	< 1 U	0.22 J	15	< 1 U	< 2 U
GM-17	9/24/2008	0.29 J	< 1 U	< 1 U	< 1 U	< 1.9 U	< 1 U	4.8	< 1 U	< 1 U	10	< 1 U	< 2 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-18	9/22/1999	42.6	22.6	1.3	<1.0	35.3	<1.0	4.9	<1.0	2.2	131	<1.0	<1.0
GM-18	9/27/2000	31.8	10.4	<1.0	<1.0	23.9	<1.0	7.8	<1.0	1.8	115	<1.0	<1.0
GM-18	11/8/2001	23	3.3	1.3J	< 3.3	14	< 3.3	12	< 3.3	1.6J	93	< 3.3	< 3.3
GM-18	9/19/2002	18	6.0	< 3.3	< 3.3	15	< 3.3	28	< 3.3	1.6J	98	< 3.3	< 3.3
GM-18	9/22/2003	10	3.7	< 2 U	< 2 U	8.8	< 2 U	24	< 2 U	< 1 U	77	0.75 J	< 2 U
GM-18	9/15/2004	5.2	2.2	0.46 J	< 2 U	5.9	< 2 U	20	< 2 U	< 1 U	53	< 2 U	< 2 U
GM-18	10/20/2005	7.0	15	0.30 J	< 1.0 U	14	< 1.0 U	21	< 1.0 U	1.2	70 J	3.0	< 2.0 U
GM-18	9/27/2006	6.2	17	< 2.9 U	< 2.9 U	21	< 2.9 U	15	< 2.9 U	2 J	72	2.5 J	< 5.7 U
GM-18	9/19/2007	5.4	13	< 2.5 U	< 2.5 U	19	< 2.5 U	14	< 2.5 U	1.2 J	64	1.1 J	< 5 U
GM-18	9/24/2008	2.3	< 6.1 U	< 1.4 U	< 1.4 U	13	< 1.4 U	16	< 1.4 U	0.79 J	38	< 1.4 U	< 2.9 U
WSU-24	9/23/1999	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	17.0	<1.0	<1.0
WSU-24	9/26/2000	2.1	<1.0	<1.0	<1.0	2.7	<1.0	1.2.	<1.0	<1.0	16.8	<1.0	<1.0
WSU-24	11/9/2001	2.4	0.81J	< 1.0	< 1.0	4.0	< 1.0	1.6	< 1.0	< 0.50	18	< 1.0	< 1.0
WSU-24	9/24/2002	1.4	< 1	< 1	< 1	< 0.5	< 1	1.2	< 1	< 0.5	13	< 1	< 1
WSU-24	9/22/2003	0.67 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	1	< 1 U	< 0.5 U	7.9	< 1 U	< 1 U
WSU-24	9/16/2004	0.58 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	1.3	< 1 U	< 0.5 U	8	< 1 U	< 1 U
WSU-24	10/20/2005	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	< 1.0 U	< 1.0 U	11	< 1.0 U	< 2.0 U
WSU-24	9/26/2006	0.65 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.81 J	< 1 U	< 1 U	10	< 1 U	< 2 U
WSU-24	9/19/2007	0.66 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.89 J	< 1 U	< 1 U	7.9	< 1 U	< 2 U
WSU-24	9/25/2008	0.62 J	0.85 J	< 1 U	< 1 U	2.4 J	< 1 U	1.7	< 1 U	0.35 J	12 J	< 1 U	< 2 U
GM-10	9/21/1999	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	14.8	<1.0	<1.0
GM-10	9/27/2000	2.5	1.4	<1.0	<1.0	5.7	<1.0	1.4	<1.0	<1.0	23.2	<1.0	<1.0
GM-10	11/8/2001	2.7	3.4	< 1.0	< 1.0	16	< 1.0	1.9	< 1.0	0.93	27	1.2	< 1.0
GM-10	9/18/2002	1.8	0.61J	< 1.0	< 1.0	2.3	< 1.0	1.1	< 1.0	< 0.50	19	< 1.0	< 1.0
GM-10	9/24/2003	0.96 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	2.2	< 1 U	< 0.5 U	33	< 1 U	< 1 U
GM-10	9/14/2004	1.2	< 1 U	< 1 U	< 1 U	0.38 J	< 1 U	1.5	< 1 U	< 0.5 U	15	< 1 U	< 1 U
GM-10	10/20/2005	1.6	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	1.2	< 1.0 U	< 1.0 U	12	< 1.0 U	< 2.0 U
GM-10	9/27/2006	0.9 J	0.29 J	< 1 U	< 1 U	0.77 J	< 1 U	0.98 J	< 1 U	< 1 U	11	< 1 U	< 2 U
GM-10	9/19/2007	0.75 J	< 1 U	< 1 U	< 1 U	0.35 J	< 1 U	0.93 J	< 1 U	< 1 U	8.8	< 1 U	< 2 U
GM-10	9/24/2008	0.53 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.85 J	< 1 U	< 1 U	5.9	< 1 U	< 2 U
GM-26	9/22/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GM-26	9/27/2000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GM-26	11/12/2001	0.19J	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	1.1	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0
GM-26	9/25/2002	< 1	< 1	< 1	< 1	< 0.5	< 1	0.92J	< 1	< 0.5	< 1	< 1	< 1
GM-26	10/1/2003	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	0.85 J	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
GM-26	9/16/2004	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	1.3	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
GM-26	10/20/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-26	9/21/2006	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.91 J	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
GM-26	9/27/2007	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.2	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
GM-26	10/1/2008	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.4	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
GM-26	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-47	9/25/2007	2.2 J	2.4 J	< 7.1 U	< 7.1 U	170	< 7.1 U	71	< 7.1 U	4.6 J	53	< 7.1 U	< 14 U
GM-47	10/1/2008	1.4 J	2 J	< 5 U	< 5 U	160	< 5 U	86	< 5 U	3.9 J	36	1.9 J	< 10 U
GM-47	11/13/2009	1.0 J	2.4 J	< 2.5 U	< 2.5 U	61	< 2.5 U	61	< 2.5 U	2.8	29	0.66 J	< 5.0 U
GM-50	9/25/2007	1.4 J	1.9 J	< 5.9 U	< 5.9 U	130	< 5.9 U	100	< 5.9 U	2.5 J	44	< 5.9 U	< 12 U
GM-50	10/1/2008	1.6 J	1.7 J	< 2.5 U	< 2.5 U	13	< 2.5 U	82	< 2.5 U	0.68 J	54	< 2.5 U	< 5 U
GM-50	11/13/2009	1.8 J	1.3 J	< 5.0 U	< 5.0 U	11	< 5.0 U	110	< 5.0 U	< 5.0 U	120	< 5.0 U	< 10 U

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Table A-1. Annual Groundwater Analytical Results for the Upper Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	Date	1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-51	9/27/2007	0.61 J	0.23 J	< 1 U	< 1 U	1	< 1 U	7.2	0.29 J	< 1 U	3.9	< 1 U	< 2 U
GM-51	9/30/2008	0.6 J	0.78 J	< 1 U	< 1 U	2	< 1 U	9.3	< 1 U	0.7 J	7.7	< 1 U	< 2 U
GM-52	9/26/2007	1.3 J	1.5 J	< 2.5 U	< 2.5 U	18	< 2.5 U	88	< 2.5 U	1 J	47	< 2.5 U	< 5 U
GM-52	9/30/2008	1.9 J	3	< 2.5 U	< 2.5 U	14	< 2.5 U	88	< 2.5 U	< 2.5 U	43	< 2.5 U	< 5 U
GM-52	11/12/2009	1.1 J	1.1 J	< 2.5 U	< 2.5 U	1.5 J	< 2.5 U	94	< 2.5 U	0.83 J	43	< 2.5 U	< 5.0 U
GM-55	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	0.46 J	< 1.0 U	< 1.0 UJ	7.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-63	9/25/2007	2.7 J	1.8 J	< 6.7 U	< 6.7 U	5 J	< 6.7 U	130	< 6.7 U	< 6.7 U	120	< 6.7 U	< 13 U
GM-63	10/1/2008	4 J	2.2 J	< 5 U	< 5 U	4.9 J	< 5 U	140	< 5 U	< 5 U	92	< 5 U	< 10 U
GM-64	9/25/2007	< 3.3 U	2.7 J	< 3.3 U	< 3.3 U	74	< 3.3 U	11	< 3.3 U	6.6	4.5	18	< 6.7 U
GM-64	10/1/2008	0.55 J	2.7	< 1 U	< 1 U	15	< 1 U	31	< 1 U	2.3	14	2.3	< 2 U
GM-65S	10/6/2008	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	8.7	< 1 U	< 1 U	3.8	< 1 U	< 2 U
GM-65S	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	11	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 2.0 U
GM-78	10/2/2008	< 1 U	< 1 U	< 1 U	< 1 UJ	< 1 U	< 1 U	11	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
GM-78	11/12/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	12	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
GM-79	10/2/2008	0.65 J	< 1 U	< 1 U	< 1 UJ	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.8	< 1 U	< 2 U
GM-79	11/12/2009	0.72 J	0.31 J	< 1.0 U	0.48 J	0.28 J	< 1.0 UJ	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 2.0 U
GM-80	9/22/2008	< 1 U	0.39 J	< 1 U	< 1 U	3.6	< 1 U	0.93 J	< 1 U	0.19 J	5.4	< 1 U	< 2 U
GM-80	11/12/2009	0.24 J	0.55 J	< 1.0 U	< 1.0 U	3.2	< 1.0 U	1.6	< 1.0 U	0.25 J	9.8	< 1.0 U	< 2.0 U

All concentrations presented in micrograms per liter.
VOCs - Volatile Organic Compounds.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
cis-1,2-DCE - cis-1,1-Dichloroethene.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.

< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.

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Table A-2. Annual Groundwater Analytical Results for the Lower Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
Upgradient of the Site													
HR-10	9/15/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-10	9/29/2000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
HR-10	11/14/2001	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0
HR-10	9/27/2002	< 1	< 1	< 1	< 1	< 0.5	< 1	< 1	< 1	< 0.5	< 1	< 1	< 1
HR-10	9/17/2003	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
HR-10	9/20/2004	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
HR-10	10/24/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
HR-10	9/26/2006	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-10	9/25/2007	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-10	9/30/2008	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-12	9/14/1999	<1.0UJ	2.7	<1.0	1.2	1.8	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0
HR-12	9/28/2000	<1.0	2.2	<1.0	<1.0	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0
HR-12	11/14/2001	< 1.0	3.6	< 1.0	< 1.0	2.7	< 1.0	< 1.0	< 1.0	0.23	< 1.0	3.8	< 1.0
HR-12	9/26/2002	< 1	2.4	< 1	< 1	2.1	< 1	< 1	< 1	< 0.5	< 1	1.7	< 1
HR-12	9/18/2003	< 1 U	1.7	< 1 U	< 1 U	1.4	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	1.6	< 1 U
HR-12	9/21/2004	< 1 U	1.8	< 1 U	< 1 U	1.2	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	1.1	< 1 U
HR-12	10/24/2005	< 1.0 U	2.1	< 1.0 U	< 1.0 U	1.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 2.0 U
HR-12	9/26/2006	< 1 U	2.1	< 1 U	< 1 U	1.3	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-12	9/19/2007	< 1 U	2.2	< 1 U	< 1 U	1.3	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
HR-12	9/25/2008	0.39 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.3	< 1 U	< 1 U	5.1	< 1 U	< 2 U
HR-12	11/13/2009	< 1.0 U	2	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

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Table A-2. Annual Groundwater Analytical Results for the Lower Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
On-Site													
HR-14	9/15/1999	<1.0	<1.0	<1.0	<1.0	7.9	<1.0	<1.0	<1.0	<1.0	3.4	11.5	<1.0
HR-14	9/30/2002	< 1	< 1	< 1	< 1	3.6	< 1	< 1	< 1	< 0.5	1.2	< 1	< 1
HR-15	9/15/1999	<1.0	<1.0	<1.0	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	11.0	<1.0
HR-15	9/29/2000	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<1.0	<1.0	<1.0	<1.0	11.2	<1.0
HR-15	11/14/2001	< 1.0	< 1.0	< 1.0	< 1.0	0.86	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0
HR-15	9/30/2002	< 1	< 1UJ	< 1	< 1	1	< 1	< 1	< 1	< 0.5	< 1	< 1	< 1
HR-15	9/17/2003	< 1 U	< 1 U	< 1 U	< 1 U	2.2	< 1 U	< 1 U	< 1 U	< 0.5 U	0.29 J	14	< 1 U
HR-15	9/21/2004	< 1 U	< 1 U	< 1 U	< 1 U	2.5	< 1 U	< 1 U	< 1 U	< 0.5 U	0.38 J	19	< 1 U
HR-15	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	14	< 2.0 U
HR-15	9/25/2006	< 1 U	< 1 U	< 1 U	< 1 U	2.2	< 1 U	< 1 U	< 1 U	< 1 U	0.5 J	13	< 2 U
HR-15	9/26/2007	< 1 U	< 1 U	< 1 U	< 1 U	2.5	< 1 U	< 1 U	< 1 U	< 1 U	0.37 J	15	< 2 U
HR-15	9/29/2008	< 1 U	< 1 U	< 1 U	< 1 U	3.6	< 1 U	< 1 U	< 1 U	< 1 U	0.47 J	9.7	< 2 U
HR-15	11/13/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	3.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.7 J	6.5	< 2.0 U
HR-13	9/15/1999	1.6	41.4	<1.0	<1.0	20.8	<1.0	<1.0	<1.0	3.1	3.4	<1.0	<1.0
HR-13	9/29/2000	1.7	39.5	<1.0	<1.0	14.1	<1.0	<1.0	<1.0	2.5	2.0	<1.0	<1.0
HR-13	11/14/2001	0.74J	15	< 1.0	0.18J	6.5	< 1.0	< 1.0	< 1.0	0.65	1.2	< 1.0	< 1.0
HR-13	9/30/2002	1.4	25	< 1	< 1	11	< 1	< 1	< 1	1.4	3.6	< 1	< 1
HR-13	9/16/2003	2.2	33	< 1 U	< 1 U	12	< 1 U	< 1 U	< 1 U	1.8	5.7	< 1 U	< 1 U
HR-13	9/21/2004	2.6	30	0.27 J	< 1 U	12	< 1 U	< 1 U	< 1 U	1.5	21	0.43 J	< 1 U
HR-13	10/25/2005	2.3	25	0.25 J	< 1.0 U	11	< 1.0 U	0.20 J	< 1.0 U	1.5	20	< 1.0 U	< 2.0 U
HR-13	9/25/2006	2	22	0.18 J	< 1 U	9	< 1 U	0.2 J	< 1 U	1.4	15	< 1 U	< 2 U
HR-13	9/25/2007	< 1 U	1.5	< 1 U	< 1 U	1.1	< 1 U	< 1 U	< 1 U	< 1 U	5.1	< 1 U	< 2 U
31	9/29/2000	<1.0	7.4	<1.0	<1.0	8.4	<1.0	<1.0	<1.0	<1.0	12.9	4.4	<1.0
31	11/15/2001	< 1.0	3.1	< 1.0	< 1.0	2.4	< 1.0	< 1.0	< 1.0	< 0.50	5.1	2.5	< 1.0
39	9/27/2002	< 1	1.6	< 1	< 1	1.3	< 1	< 1	< 1	< 0.5	3.8	0.51J	< 1
39	9/24/2003	< 1 U	0.58 J	< 1 U	< 1 U	0.71	< 1 U	< 1 U	< 1 U	< 0.5 U	0.89 J	< 1 U	< 1 U
GM-39	12/10/2003	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	0.18 J	< 0.5 U	< 1 U	1.3	< 1 U
GM-39	9/20/2004	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	1.8	< 1 U
GM-39	10/24/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.77 J	< 2.0 U
GM-39	9/27/2006	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.7	< 2 U
GM-39	9/26/2007	< 1 U	< 1 U	< 1 U	< 1 U	19 J	< 1 U	< 1 U	< 1 U	0.23 J	< 1 U	1.6	< 2 U
GM-39	10/1/2008	< 1 U	< 1 U	< 1 U	< 1 U	0.67 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	3.2	< 2 U
GM-40	12/10/2003	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	3.1	< 1 U
GM-40	9/20/2004	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	3.2	< 1 U
GM-40	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.9	< 2.0 U
GM-40	9/26/2006	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	3.9	< 2 U
GM-40	9/25/2007	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	4	< 2 U
GM-40	9/30/2008	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	3.6	< 2 U
GM-61	9/26/2007	0.59 J	1.6 J	< 1.7 U	< 1.7 U	3.9	< 1.7 U	28	< 1.7 U	< 1.7 U	56	< 1.7 U	< 3.3 U
GM-61	10/1/2008	< 1 U	0.94 J	0.19 J	< 1 U	20	< 1 U	13	< 1 U	0.92 J	23	0.75 J	< 2 U

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Table A-2. Annual Groundwater Analytical Results for the Lower Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-41	12/10/2003	< 11 U	< 11 U	< 11 U	< 1 U	10	< 11 U	< 11 U	< 11 U	< 5.6 U	320	< 11 U	< 11 U
GM-41	9/21/2004	< 6.2 U	< 6.2 U	< 6.2 U	< 6.2 U	24	< 6.2 U	< 6.2 U	< 6.2 U	< 3.1 U	180	< 6.2 U	< 6.2 U
GM-41	10/24/2005	< 10 U	< 10 U	< 10 U	< 10 U	16	< 10 U	< 10 U	< 10 U	< 10 U	250	< 10 U	< 20 U
GM-41	9/18/2006	< 4 U	< 4 U	< 4 U	< 4 U	11	< 4 U	< 4 U	< 4 U	< 4 U	210	< 4 U	< 8 U
GM-41	9/20/2007	< 6.7 U	< 6.7 U	< 6.7 U	< 6.7 U	17	< 6.7 U	< 6.7 U	< 6.7 U	1.4 J	230	1.9 J	< 13 U
GM-41	9/26/2008	< 7.1 U	< 7.1 U	< 7.1 U	< 7.1 U	11	< 7.1 U	< 7.1 U	< 7.1 U	< 7.1 U	180	< 7.1 U	< 14 U
GM-58	9/20/2007	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	69	< 3.3 U	< 3.3 U	< 3.3 U	< 3.3 U	< 6.7 U
GM-58	9/26/2008	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	80	< 2.5 U	< 2.5 U	< 2.5 U	< 2.5 U	< 5 U
GM-54	9/20/2007	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	150	< 5 U	< 5 U	2.4 J	< 5 U	< 10 U
GM-54	9/30/2008	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	< 5.7 U	190	< 5.7 U	< 5.7 U	2.5 J	< 5.7 U	< 11 U
GM-54	11/13/2009	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	120	< 5.0 U	< 5.0 U	2.9 J	< 5.0 U	< 10 U
GM-42	12/9/2003	< 1 U	0.46 J	< 1 U	< 1 U	11	< 1 U	0.27 J	< 1 U	0.34 J	0.37 J	1	< 1 U
GM-42	9/20/2004	< 1 U	0.7 J	0.25 J	< 1 U	16	< 1 U	< 1 U	< 1 U	0.44 J	0.43 J	0.92 J	< 1 U
GM-42	10/25/2005	< 1.0 U	0.64 J	0.21 J	< 1.0 U	17	< 1.0 U	0.19 J	< 1.0 U	0.59 J	0.85 J	0.56 J	< 2.0 U
GM-42	9/26/2006	< 1 U	0.5 J	< 1 U	< 1 U	14	< 1 U	< 1 U	< 1 U	0.44 J	0.64 J	0.45 J	< 2 U
GM-42	9/25/2007	< 1 U	0.67 J	< 1 U	< 1 U	18	< 1 U	< 1 U	0.18 J	0.69 J	2.2	0.44 J	< 2 U
GM-42	9/30/2008	< 1 U	0.66 J	0.53 J	< 1 U	20	< 1 U	< 1 U	< 1 U	0.89 J	9.9	0.31 J	< 2 U
GM-19D	9/28/1999	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	13.5	1.5	<1.0
GM-19D	10/2/2000	<1.0	<1.0	<1.0	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	2.9	15.7	<1.0
GM-19D	11/14/2001	0.18J	< 1.0	< 1.0	< 1.0	0.92	< 1.0	< 1.0	0.38J	< 0.50	3.7	13	< 1.0
GM-19D	9/26/2002	< 1	< 1	< 1	< 1	0.81	< 1	< 1	< 1	< 0.5	3.1	0.36J	< 1
GM-19D	9/25/2003	< 1 U	< 1 U	< 1 U	< 1 U	1.8	< 1 U	< 1 U	< 1 U	< 0.5 U	0.24 J	17	< 1 U
GM-19D	9/20/2004	0.31 J	< 1 U	< 1 U	< 1 U	2	< 1 U	< 1 U	< 1 U	< 0.5 U	3.5	18	< 1 U
GM-19D	10/25/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2	15	< 2.0 U
GM-19D	9/26/2006	< 1 U	< 1 U	< 1 U	< 1 U	2	< 1 U	< 1 U	< 1 U	< 1 U	1.4	18	< 2 U
GM-19D	9/17/2007	0.25 J	< 1 U	< 1 U	< 1 U	1.4	< 1 U	< 1 U	< 1 U	< 1 U	3.2	16	< 2 U
GM-19D	9/23/2008	< 1 U	< 1 U	< 1 U	< 1 U	2.4	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	9.8	< 2 U
GM-19D	11/11/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	14	< 2.0 U
GM-7R	9/28/1999	4.2	<1.0	<1.0	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	76.1	<1.0	<1.0
GM-68D	10/3/2008	< 5 U	< 5 U	< 5 U	< 5 U	14	< 5 U	190	< 5 U	< 5 U	46	< 5 U	< 10 U
GM-68D	11/16/2009	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	4.5	< 2.0 U	130 J	< 2.0 U	< 2.0 U	35	< 2.0 U	< 4.0 U
GM-75D	10/6/2008	< 33 U	< 33 U	< 33 U	< 33 U	120	< 33 U	220	< 33 U	< 33 U	750	< 33 U	< 67 U
GM-75D	11/16/2009	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	15	< 5.0 U	320	< 5.0 U	< 5.0 U	210	< 5.0 U	< 10 U
GM-82	10/2/2008	1 J	2.4 J	0.64 J	< 3.3 U	46	< 3.3 U	51	< 3.3 U	2 J	100	< 3.3 U	< 6.7 U
GM-83D	10/2/2008	< 1 U	< 1 U	< 1 U	< 1 UJ	0.3 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.3	< 2 U
GM-83D	11/11/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 2.0 U
GM-84	10/2/2008	< 1 U	< 1 U	< 1 U	< 1 UJ	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	6.6	< 1 U	< 2 U
GM-84	11/16/2009	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.3	< 1.0 U	< 2.0 U

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Table A-2. Annual Groundwater Analytical Results for the Lower Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
Downgradient of the Site													
GM-3	9/28/1999	1.7	<1.0	<1.0	<1.0	1.1	<1.0	1.2	<1.0	<1.0	7.5	<1.0	<1.0
GM-3	10/2/2000	1.0	2.1	<1.0	<1.0	8.3	<1.0	1.5	<1.0	1.1	9.4	<1.0	<1.0
GM-3	11/14/2001	0.16J	0.95J	< 1.0	< 1.0	2.6	< 1.0	0.48J	< 1.0	0.25J	2.9	< 1.0	< 1.0
GM-3	10/1/2002	0.74J	1.8	< 1	< 1	8.9	< 1	1.4	< 1	1.2	9.5	0.63J	< 1
GM-3	10/2/2003	0.96 J	1.6	< 1 U	< 1 U	5.5	0.26 J	1.7	< 1 U	0.77	12	< 1 U	< 1 U
GM-3	9/21/2004	1	1.8	< 1 U	< 1 U	4.9	< 1 U	2	< 1 U	0.75	13	< 1 U	< 1 U
GM-3	10/25/2005	0.83 J	1.6	< 1.0 U	< 1.0 U	4.7	< 1.0 U	2.0	< 1.0 U	0.66 J	14	< 1.0 U	< 2.0 U
GM-3	9/22/2006	0.59 J	2 J	< 1 UJ	< 1 UJ	6.1 J	< 1 UJ	2.1 J	< 1 UJ	1 J	13 J	0.27 J	< 2 UJ
GM-3	9/18/2007	0.67 J	1.5	< 1 U	< 1 U	3.8	< 1 U	1.9	< 1 U	0.77 J	14	< 1 U	< 2 U
GM-3	9/24/2008	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 UJ	< 1 U	< 1 U	< 1 UJ	< 1 U	< 2 U
GM-4	9/28/1999	<1.0	<1.0	<1.0	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	13.4	<1.0	<1.0
GM-5	9/28/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.9	<1.0	1.3	<1.0	<1.0
GM-1	9/28/1999	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	2.0	5.2	<1.0	30.6	<1.0	<1.0
GM-1	10/2/2000	2.2	<1.0	<1.0	<1.0	<1.0	<1.0	2.8	<1.0	<1.0	37.2	<1.0	<1.0
GM-1	11/14/2001	0.80J	0.29J	< 1.0	< 1.0	< 0.50	< 1.0	1.3	< 1.0	< 0.50	19	< 1.0	< 1.0
GM-1	10/1/2002	1.3 J	0.48 J	< 1.4 U	< 1.4 U	0.95	< 1.4 U	2.3	< 1.4 U	< 0.72 U	39	< 1.4 U	< 1.4 U
GM-1	10/2/2003	1.2	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	2	< 1 U	< 0.5 U	34	< 1 U	< 1 U
GM-1	9/21/2004	1.2	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	2.1	< 1 U	< 0.5 U	35	< 1 U	< 1 U
GM-1	10/25/2005	0.95 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.1	< 1.0 U	< 1.0 U	34	< 1.0 U	< 2.0 U
GM-1	9/20/2006	0.76 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2.1	< 1 U	< 1 U	34	< 1 U	< 2 U
GM-1	9/18/2007	0.74 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.8	< 1 U	< 1 U	32	< 1 U	< 2 U
GM-1	9/24/2008	0.69 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.8	< 1 U	< 1 U	31	< 1 U	< 2 U
GM-15	9/24/1999	<1.0	2.4	<1.0	<1.0	4.3	<1.0	<1.0	<1.0	<1.0	4.1	<1.0	<1.0
GM-15	10/2/2000	<1.0	2.3	<1.0	<1.0	2.6	<1.0	<1.0	<1.0	<1.0	4.7	<1.0	<1.0
GM-15	11/14/2001	< 1.0	1.4	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 0.50	4.9	< 1.0	< 1.0
GM-15	9/27/2002	< 1	1.6	< 1	< 1	1.8	< 1	< 1	< 1	< 0.5	4.7	< 1	< 1
GM-15	9/22/2003	< 1 U	1.7	< 1 U	< 1 U	1.6	< 1 U	< 1 U	< 1 U	< 0.5 U	5.9	< 1 U	< 1 U
GM-15	9/20/2004	< 1 U	1.8	< 1 U	< 1 U	1.4	< 1 U	< 1 U	< 1 U	< 0.5 U	5.8	< 1 U	< 1 U
GM-15	10/26/2005	< 1.0 U	1.7	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	5.9	< 1.0 U	< 2.0 U
GM-15	9/18/2006	< 1 U	1.6	< 1 U	< 1 U	1.2	< 1 U	< 1 U	< 1 U	< 1 U	6.3	< 1 U	< 2 U
GM-15	9/25/2007	< 1 U	1.5	< 1 U	< 1 U	1.1	< 1 U	< 1 U	< 1 U	< 1 U	5.1	< 1 U	< 2 U
GM-15	9/30/2008	< 1 U	1.1	< 1 U	< 1 U	0.79 J	< 1 U	< 1 U	< 1 U	< 1 U	6.2	< 1 U	< 2 U
GM-15	11/13/2009	< 1.0 U	1.2	< 1.0 U	< 1.0 U	1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	6.5	< 1.0 U	< 2.0 U
GM-14	9/24/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GM-13	9/24/1999	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	<1.0	<1.0	31.0	<1.0	<1.0

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Table A-2. Annual Groundwater Analytical Results for the Lower Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

Well	Date	VOCs 1,1,1-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	Ethyl-benzene	PCE	Toluene	trans-1,2-DCE	TCE	Vinyl Chloride	Xylenes
GM-11	9/24/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	14.5	<1.0	<1.0
GM-11	10/2/2000	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	3.0	<1.0	<1.0	41.3	<1.0	<1.0
GM-11	11/14/2001	0.33J	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	1.0	< 1.0	< 0.50	12	< 1.0	< 1.0
GM-11	10/1/2002	1	0.34J	< 1	< 1	0.62	< 1	2.2	< 1	< 0.5	35	< 1	< 1
GM-11	9/24/2003	0.96 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	2.2	< 1 U	< 0.5 U	33	< 1 U	< 1 U
GM-11	9/21/2004	0.89 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	2.1	< 1 U	< 0.5 U	33	< 1 U	< 1 U
GM-11	10/26/2005	0.75 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.7	< 1.0 U	< 1.0 U	32	< 1.0 U	< 2.0 U
GM-11	9/25/2006	0.75 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2	< 1 U	< 1 U	34	< 1 U	< 2 U
GM-11	9/18/2007	0.6 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.5	< 1 U	< 1 U	35	< 1 U	< 2 U
GM-11	9/24/2008	0.47 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	1.7	< 1 U	< 1 U	31	< 1 U	< 2 U
GM-11	11/12/2009	0.47 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.8	< 1.0 U	< 1.0 U	37	< 1.0 U	< 2.0 U
GM-20D	9/24/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
GM-20D	10/3/2000	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	4.2	<1.0	<1.0	14.3	<1.0	<1.0
GM-20D	11/14/2001	0.64J	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	2.0	< 1.0	< 0.50	5.9	< 1.0	< 1.0
GM-20D	9/30/2002	< 1	< 1	< 1	< 1	< 0.5	< 1	1.3	< 1	< 0.5	3.8	< 1	< 1
GM-20D	9/22/2003	0.89 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	3.6	< 1 U	< 0.5 U	12	< 1 U	< 1 U
GM-20D	9/21/2004	0.96 J	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	2.9	< 1 U	< 0.5 U	11	< 1 U	< 1 U
GM-20D	10/26/2005	0.73 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	11	< 1.0 U	< 2.0 U
GM-20D	9/26/2006	0.51 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2.1	< 1 U	< 1 U	11	< 1 U	< 2 U
GM-20D	9/19/2007	0.5 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2.1	< 1 U	< 1 U	9.2	< 1 U	< 2 U
GM-20D	9/25/2008	0.45 J	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	2.6	< 1 U	< 1 U	6.6	< 1 U	< 2 U
GM-20D	11/13/2009	0.4 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 UJ	2	< 1.0 U	< 1.0 U	7.6	< 1.0 U	< 2.0 U
DN-13	11/14/2001	1.1	2.5	< 1.0	< 1.0	6.2	< 1.0	< 1.0	< 1.0	0.37J	5.0	1.2	< 1.0
DN-13	9/27/2002	1.1	2.5	< 1	< 1	7.3	< 1	< 1	< 1	0.48J	6.1	1.3	< 1
DN-13	9/22/2003	1.1	2.4	< 1 U	< 1 U	6.8	< 1 U	0.31 J	< 1 U	0.4 J	6.4	1.1	< 1 U
DN-13	9/16/2004	0.84 J	2.2	< 1 U	< 1 U	6.7	< 1 U	0.44 J	< 1 U	0.49 J	6.8	2.1	< 1 U
DN-13	10/20/2005	1.5	2.0	< 1.0 U	< 1.0 U	5.5	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	7.2	2.6	< 2.0 U
DN-13	9/27/2006	0.51 J	1.5	< 1 U	< 1 U	6.1	< 1 U	0.33 J	< 1 U	0.41 J	5.7	2.3	< 2 U
DN-13	9/19/2007	0.48 J	2	< 1 U	< 1 U	6.4	< 1 U	< 1 U	< 1 U	0.4 J	3.3	2.6	< 2 U
DN-13	9/24/2008	0.63 J	< 1.7 U	< 1 U	< 1 U	6.2	< 1 U	< 1 U	< 1 U	0.44 J	4.5	1.4	< 2 U
DN-13	11/11/2009	0.77 J	2.1	< 1.0 U	< 1.0 U	7.9	< 1.0 U	0.33 J	< 1.0 U	0.50 J	6.5	1.7	< 2.0 U
GM-9	9/24/1999	1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	13.8	<1.0	<1.0
GM-9	10/3/2000	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17.2	<1.0	<1.0
GM-9	11/14/2001	0.48J	0.58J	< 1.0	< 1.0	1.1	< 1.0	0.38J	< 1.0	< 0.50	8.6	< 1.0	< 1.0
GM-9	9/30/2002	0.99J	0.48J	< 1	< 1	0.66	< 1	< 1	< 1	< 0.5	16	< 1	< 1
GM-9	9/24/2003	1.3	0.45 J	< 1 U	< 1 U	0.56	< 1 U	< 1 U	< 1 U	< 0.5 U	20	< 1 U	< 1 U
GM-9	9/21/2004	1.1	0.6 J	< 1 U	< 1 U	0.97	< 1 U	< 1 U	< 1 U	< 0.5 U	16	< 1 U	< 1 U
GM-9	10/26/2005	0.85 J	0.59 J	< 1.0 U	< 1.0 U	0.99 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	15	< 1.0 U	< 2.0 U
GM-9	9/25/2006	0.44 J	0.48 J	< 1 U	< 1 U	0.85 J	< 1 U	< 1 U	< 1 U	< 1 U	6.6	< 1 U	< 2 U
GM-9	9/19/2007	1.2	0.48 J	< 1 U	< 1 U	0.71 J	< 1 U	< 1 U	< 1 U	< 1 U	18	< 1 U	< 2 U
GM-9	9/24/2008	1.2	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	18	< 1 U	< 2 U

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Table A-2. Annual Groundwater Analytical Results for the Lower Aquifer Wells from 1999-2009, Motors Liquidation Company, Moraine, Ohio.

		VOCs											
Well	**Date**	**1,1,1-TCA**	**1,1-DCA**	**1,1-DCE**	**Benzene**	**cis-1,2-DCE**	**Ethyl-benzene**	**PCE**	**Toluene**	**trans-1,2-DCE**	**TCE**	**Vinyl Chloride**	**Xylenes**
MT-69	9/24/1999	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MT-69	10/3/2000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MT-69	11/15/2001	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0
MT-69	9/30/2002	< 1	< 1	< 1	< 1	< 0.5	< 1	< 1	< 1	< 0.5	< 1	< 1	< 1
MT-69	10/1/2003	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
MT-69	9/27/2004	< 1 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U	< 0.5 U	< 1 U	< 1 U	< 1 U
MT-69	10/24/2005	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MT-69	9/26/2006	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U
MT-69	9/27/2007	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U

All concentrations presented in micrograms per liter.
VOCs - Volatile Organic Compounds.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
cis-1,2-DCE - cis-1,1-Dichloroethene.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.

< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory limit shown.

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Appendix B

Groundwater Sampling Data for 2010

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Table B-1. Annual Groundwater Sampling Event Field Parameter Data Sheet for 2010, Motors Liquidation Company, Moraine, Ohio.

Well ID	Sample ID	pH (s.u.)	Temp (°C)	ORP (mV)	Conductivity (mS/cm)	DO (mg/L)	Purge Rate (L/min)	Time Start Purge	Time End Purge	Volume Purged (L)	Sample Date	Time Sampled	Sampler (ARCADIS)
Upper Aquifer Wells													
GM-2	GM-2/092710/	6.98	16.13	-22.7	1.663	3.00	0.6	16:18	16:30	7.2	9/27/2010	16:32	Smith
GM-6	GM-6/092710/	7.27	16.10	-136.4	1.900	3.30	0.6	15:22	15:34	7.2	9/27/2010	15:36	Smith
GM-8	GM-8/092710/	7.89	16.51	-167.7	2.083	3.00	0.6	12:43	12:58	9.0	9/27/2010	13:00	Smith
GM-16	GM-16/092310/	7.57	15.97	101.2	1.012	0.50	1.1	10:45	11:02	18.7	9/23/2010	11:05	Epple
GM-19S	GM-19S/092710/	7.47	16.43	-112.5	1.986	0.67	1.2	11:23	11:36	15.6	9/27/2010	11:38	Epple
GM-21	GM-21/092810/	6.46	16.65	-95.1	2.424	3.60	0.7	13:21	13:33	7.8	9/28/2010	13:34	Smith
GM-23	GM-23/092910/	6.89	18.89	-104.2	1.395	0.23	0.9	14:58	15:15	15.3	9/29/2010	15:18	Epple
GM-26	GM-26/092210/	7.06	13.13	128.4	1.122	0.15	0.8	15:17	15:28	8.3	9/22/2010	15:30	Epple
GM-28	GM-28/092810/	7.16	16.56	-153.5	1.615	2.70	0.5	17:40	17:52	6.0	9/28/2010	17:54	Smith
GM-29	GM-29/092910/	7.09	18.00	-163.0	1.427	2.00	0.8	12:13	12:25	9.6	9/29/2010	12:27	Smith
GM-32	GM-32/092710/	7.68	16.79	-236.9	5.328	2.40	0.5	11:31	11:46	7.5	9/27/2010	11:51	Smith
GM-35	GM-35/092710/	9.71	16.79	-179.7	4.638	0.17	0.9	15:58	16:17	17.1	9/27/2010	16:20	Epple
GM-43	GM-43/092410/	11.30	15.91	-90.6	1.264	0.52	1.1	14:00	14:14	15.4	9/24/2010	14:16	Epple
GM-47	GM-47/092310/	8.93	16.40	15.7	1.107	0.21	0.7	15:34	15:46	8.4	9/23/2010	15:48	Epple
GM-50	GM-50/092310/	7.50	16.42	19.2	1.278	0.94	0.8	14:38	14:55	12.8	9/23/2010	14:57	Epple
GM-52	GM-52/092210/	7.02	15.52	-24.4	1.251	7.30	2.0	10:13	10:29	32.0	9/22/2010	10:32	Smith
GM-55	GM-55/092210/	7.13	15.13	-17.9	1.159	51.90	0.5	11:57	12:16	9.5	9/22/2010	15:15	Smith
GM-59	GM-59/092910/	8.12	17.08	13.4	1.313	1.90	1.2	10:54	11:06	14.4	9/29/2010	11:09	Epple
GM-60	GM-60/092910/	8.27	16.13	-7.5	1.511	0.23	1.0	12:11	12:22	11.0	9/29/2010	12:24	Epple
GM-65S	GM-65S/092210/	7.06	14.79	34.9	1.219	3.17	0.8	9:21	9:37	12.8	9/22/2010	9:39	Smith
GM-75S	GM-75S/092910/	7.04	18.37	-1.0	1.456	6.80	0.5	10:31	10:46	7.5	9/29/2010	10:49	Smith
GM-78	GM-78/092810/	7.10	15.05	35.5	1.119	25.20	0.7	15:15	15:27	8.4	9/28/2010	15:29	Smith
GM-79	GM-79/092210/	7.19	13.93	159.0	1.141	0.13	1.1	17:07	17:20	14.3	9/22/2010	17:22	Epple
GM-80	GM-80/092110/	7.01	12.36	188.0	0.914	0.13	0.9	17:20	17:36	14.4	9/21/2010	17:40	Epple
HR-2	HR-2/092810/	8.01	14.13	13.4	1.266	0.42	1.0	15:46	16:00	14.0	9/28/2010	16:02	Epple
HR-4	HR-4/092810/	7.51	14.57	29.7	1.449	0.76	1.2	13:49	14:02	15.6	9/28/2010	14:04	Epple
HR-7	HR-7/092310/	8.08	15.54	15.0	1.058	0.28	0.9	17:44	17:55	9.9	9/23/2010	17:57	Epple
HR-9	HR-9/092810/	6.91	15.78	55.1	1.260	5.10	0.6	10:27	10:39	7.2	9/28/2010	10:40	Smith
HR-17	HR-17/092310/	7.72	16.42	-14.5	1.161	12.50	0.6	11:50	12:05	9.0	9/23/2010	12:07	Smith
TW-2	TW-2/092810/	7.27	16.59	-118.0	1.828	4.50	0.8	8:59	9:11	9.6	9/28/2010	9:13	Smith
W-2-N	W-2-N/092410/	6.98	16.35	-53.8	1.238	3.00	0.6	13:38	13:50	7.2	9/24/2010	13:52	Smith
W-2-S	W-2-S/092410/	7.12	15.98	-35.2	1.324	3.70	0.5	8:54	9:18	12.0	9/24/2010	9:22	Smith
W-3-N	W-3-N/092410/	10.01	15.28	-109.6	0.983	0.27	1.2	10:21	10:33	14.4	9/24/2010	10:35	Epple
W-3-S	W-3-S/092310/	7.08	15.66	-45.5	0.982	17.00	0.6	15:18	15:26	4.8	9/23/2010	15:28	Smith
W-4-N	W-4-N/092410/	8.06	14.93	-0.5	1.058	0.37	1.3	12:01	12:14	16.9	9/24/2010	12:16	Epple
W-4-S	W-4-S/092310/	6.99	17.39	-30.7	1.232	3.50	0.5	14:13	14:25	6.0	9/23/2010	14:27	Smith

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Table B-1. Annual Groundwater Sampling Event Field Parameter Data Sheet for 2010, Motors Liquidation Company, Moraine, Ohio.

Well ID	Sample ID	pH (s.u.)	Temp (°C)	ORP (mV)	Conductivity (mS/cm)	DO (mg/L)	Purge Rate (L/min)	Time Start Purge	Time End Purge	Volume Purged (L)	Sample Date	Time Sampled	Sampler (ARCADIS)
Lower Aquifer Wells													
GM-9	GM-9/092210/	6.98	16.24	-67.4	1.144	2.20	0.6	14:55	15:11	9.6	9/22/2010	15:15	Smith
GM-11	GM-11/092210/	6.91	16.10	-66.5	1.125	3.20	0.4	16:44	16:58	5.2	9/22/2010	17:05	Smith
GM-15	GM-15/092310/	8.96	16.70	-39.9	0.936	0.22	1.2	11:51	12:06	16.8	9/23/2010	12:08	Epple
GM-19D	GM-19D/092710/	7.99	16.20	-81.1	1.268	0.26	1.2	13:19	13:32	15.6	9/27/2010	13:34	Epple
GM-20D	GM-20D/092210/	7.03	15.36	28.2	1.090	14.40	0.9	17:47	17:59	9.9	9/22/2010	18:01	Smith
GM-54	GM-54/092310/	7.02	17.43	-23.3	1.291	3.90	1.0	10:33	10:48	15.0	9/23/2010	10:50	Smith
GM-68D	GM-68D/092910/	6.92	16.97	17.1	1.412	0.32	0.6	9:33	9:49	9.6	9/29/2010	9:52	Epple
GM-75D	GM-75D/092910/	6.84	17.29	-48.3	1.421	3.70	0.9	9:34	9:46	10.8	9/29/2010	9:48	Smith
GM-83D	GM-83D/092210/	7.10	12.80	-90.3	1.064	0.10	1.0	12:16	12:31	15.0	9/22/2010	12:33	Epple
GM-84	GM-84/092310/	6.96	15.15	21.6	1.083	7.70	1.2	9:06	9:21	18.0	9/23/2010	9:24	Smith
HR-12	HR-12/092810/	7.01	15.27	-72.2	1.144	3.60	0.8	11:55	12:07	8.8	9/28/2010	12:09	Smith
HR-15	HR-15/092410/	8.57	14.89	-73.5	1.050	0.31	0.6	9:10	9:26	9.0	9/24/2010	9:28	Epple

Notes:
s.u. - Standard Units.
Temp - Temperature.
ºC - Degrees Celsius.
ORP - Oxidation Reduction Potential.
mV - Millivolts.
mS/cm - Miillisiemens per Centimeter.
DO - Dissolved Oxygen.
mg/L - Milligrams per Liter.
L/min - Liters per Minute.
L - Liters.

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Appendix C

Groundwater Analytical Database for 2010

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

	Units	Upgradient of Site HR-9 9/28/2010 Upper Aquifer	HR-2 9/28/2010 Upper Aquifer	HR-4 9/28/2010 Upper Aquifer	HR-7 9/23/2010 Upper Aquifer	On-Site HR-17 9/23/2010 Upper Aquifer	GM-19S 4/7/2010 Upper Aquifer	GM-19S 9/27/2010 Upper Aquifer	Duplicate 9/27/2010 QA/QC
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	4.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	74	5.6	3.9	0.26 J	1.9	9.6	9.5	9.6
1,1-Dichloroethene	µg/L	0.50 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 2.5 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	38	2.8	< 1.0 U	1.4	2.2	0.27 J	< 1.0 U	0.22 J
Ethylbenzene	µg/L	< 2.5 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	< 2.5 U	< 1.0 U	0.34 J	< 1.0 U	60	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	< 2.5 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	5.3	0.41 J	< 1.0 U	< 1.0 U	1.2 J	0.45 J	0.46 J	0.48 J
Trichloroethene	µg/L	9.5	0.39 J	0.28 J	7.5	18	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	0.67 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.7 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 5.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 3.3 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**132.6**	**9.2**	**4.5**	**9.2**	**83.3**	**10.3**	**10.0**	**10.3**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		On-Site							
	Units	GM-21 9/28/2010 Upper Aquifer	GM-23 9/29/2010 Upper Aquifer	GM-28 9/28/2010 Upper Aquifer	GM-29 9/29/2010 Upper Aquifer	GM-35 9/27/2010 Upper Aquifer	GM-43 9/24/2010 Upper Aquifer	GM-44 4/9/2010 Upper Aquifer	GM-45 4/9/2010 Upper Aquifer
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	0.75 J	< 22 U	< 1.0 U	11 J	4.8	< 8.0 U	1.8 J	2.7 J
1,1-Dichloroethane	µg/L	20	< 22 U	4.6	11 J	19	6.8 J	2.5 J	2.5 J
1,1-Dichloroethene	µg/L	< 1.0 U	< 22 U	< 1.0 U	< 20 U	0.97 J	< 8.0 U	0.70 J	< 5.7 U
Benzene	µg/L	< 1.0 U	< 22 U	< 1.0 U	< 20 U	< 4.0 U	< 8.0 U	< 3.3 U	< 5.7 U
cis-1,2-Dichloroethene	µg/L	3.9	490	2.1	660	73	220	48	36
Ethylbenzene	µg/L	< 1.0 U	< 22 U	< 1.0 U	< 20 U	< 4.0 U	< 8.0 U	< 3.3 U	< 5.7 U
Tetrachloroethene	µg/L	< 1.0 U	50	< 1.0 U	17 J	37	26	70	200
Toluene	µg/L	< 1.0 U	< 22 U	< 1.0 U	< 20 U	< 4.0 U	< 8.0 U	< 3.3 U	< 5.7 U
trans-1,2-Dichloroethene	µg/L	3.0	16 J	1.5	19 J	8.9	8.1	4.4	3.3 J
Trichloroethene	µg/L	3.2	17 J	< 1.0 U	330	120	170	110	180
Vinyl chloride	µg/L	3.6	500	2.2	59	4.3	< 8.0 U	< 3.3 U	< 5.7 U
Xylene (total)	µg/L	< 2.0 U	< 44 U	< 2.0 U	< 40 U	< 8.0 U	< 16 U	< 6.7 U	< 11 U
Total VOCs	**µg/L**	**34.5**	**1073**	**10.4**	**1107**	**268.0**	**430.9**	**237.4**	**424.5**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

	Units	GM-59 4/8/2010 Upper Aquifer	GM-59 9/29/2010 Upper Aquifer	GM-60 4/8/2010 Upper Aquifer	On-Site GM-60 9/29/2010 Upper Aquifer	GM-74S 4/9/2010 Upper Aquifer	GM-75S 9/29/2010 Upper Aquifer	W-2-N 9/24/2010 Upper Aquifer
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U	< 1.0 U
1,1-Dichloroethane	µg/L	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U	< 1.0 U
1,1-Dichloroethene	µg/L	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U	< 1.0 U
Benzene	µg/L	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	2.9 J	5.7 J	17 J	940	< 5.7 U	14 J	1.4
Ethylbenzene	µg/L	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U	< 1.0 U
Tetrachloroethene	µg/L	280	520	820	970	200	650	< 1.0 U
Toluene	µg/L	< 8.0 U	< 15 U	< 22 U	< 40 U	< 5.7 U	< 29 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 8.0 U	< 15 U	< 22 U	10 J	< 5.7 U	< 29 U	< 1.0 U
Trichloroethene	µg/L	69	350	740	1300	44	890	< 1.0 U
Vinyl chloride	µg/L	< 8.0 U	< 15 U	< 22 U	18 J	< 5.7 U	< 29 U	< 1.0 U
Xylene (total)	µg/L	< 16 U	< 31 U	< 44 U	< 80 U	< 11 U	< 57 U	< 2.0 U
Total VOCs	**µg/L**	**351.9**	**875.7**	**1577**	**3238**	**244.0**	**1554**	**1.4**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

	Units	W-3-N 9/24/2010 Upper Aquifer	W-4-N 9/24/2010 Upper Aquifer	On-Site W-2-S 9/24/2010 Upper Aquifer	W-3-S 9/23/2010 Upper Aquifer	W-4-S 9/23/2010 Upper Aquifer
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	< 2.0 U	0.41 J	1.4	0.87 J	1.1
1,1-Dichloroethane	µg/L	< 2.0 U	2.1	1.1	< 1.0 U	1.6
1,1-Dichloroethene	µg/L	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	56	7.9	0.82 J	< 1.0 U	9.1
Ethylbenzene	µg/L	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	< 2.0 U	0.67 J	0.33 J	0.95 J	31
Toluene	µg/L	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	0.79 J	0.51 J	< 1.0 U	< 1.0 U	1.5
Trichloroethene	µg/L	< 2.0 U	13	5.9	2.3	20
Vinyl chloride	µg/L	2.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**59.2**	**24.6**	**9.6**	**4.1**	**64.3**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Downgradient of the Site								
	Units	GM-2 9/27/2010 Upper Aquifer	GM-6 9/27/2010 Upper Aquifer	GM-8 9/27/2010 Upper Aquifer	GM-16 9/23/2010 Upper Aquifer	GM-25 10/21/2010 Upper Aquifer	GM-26 9/22/2010 Upper Aquifer	GM-47 1/28/2010 Upper Aquifer	GM-47 9/23/2010 Upper Aquifer	GM-50 1/28/2010 Upper Aquifer
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	1.1 J	< 1.0 U	< 1.0 U	0.85 J	0.77 J	1.5 J
1,1-Dichloroethane	µg/L	1.2	6.2	3.0	1.3 J	< 1.0 U	< 1.0 U	2.3 J	2.7	1.2 J
1,1-Dichloroethene	µg/L	< 1 U	< 1 U	< 1 U	< 4.0 U	< 1.0 U	< 1.0 U	< 2.5 U	< 1.7 U	< 5.0 U
Benzene	µg/L	< 1.0 U	1.1	4.7	< 4.0 U	< 1.0 U	< 1.0 U	< 2.5 U	< 1.7 U	< 5.0 U
cis-1,2-Dichloroethene	µg/L	3.8	4.9	< 1.0 U	2.2 J	< 1.0 U	< 1.0 U	51	42	8.1
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	0.33 J	< 4.0 U	< 1.0 U	< 1.0 U	< 2.5 U	< 1.7 U	< 5.0 U
Tetrachloroethene	µg/L	0.44 J	0.38 J	< 1.0 U	110	< 1.0 U	1.6	60	60	130
Toluene	µg/L	< 1.0 U	< 1.0 U	0.18 J	< 4.0 U	< 1.0 U	< 1.0 U	< 2.5 U	< 1.7 U	< 5.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	0.89 J	0.29 J	1.2 J	< 1.0 U	< 1.0 U	2.5	2.4	< 5.0 U
Trichloroethene	µg/L	0.95 J	6.6	< 1.0 U	75	< 1.0 U	< 1.0 U	24	22	120
Vinyl chloride	µg/L	2.5	1.6	0.44 J	< 4.0 U	< 1.0 U	< 1.0 U	< 2.5 U	0.39 J	< 5.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 8.0 U	< 2.0 U	< 2.0 U	< 5.0 U	< 3.3 U	< 10 U
Total VOCs	**µg/L**	**8.9**	**21.7**	**8.9**	**190.8**	**0.0**	**1.6**	**140.7**	**130.3**	**260.8**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Downgradient of the Site								
	Units	GM-50 9/23/2010 Upper Aquifer	GM-52 1/27/2010 Upper Aquifer	GM-52 9/22/2010 Upper Aquifer	GM-55 9/22/2010 Upper Aquifer	GM-62 4/8/2010 Upper Aquifer	Duplicate 4/8/2010 QA/QC	GM-63 1/28/2010 Upper Aquifer	Duplicate 1/28/2010 QA/QC	GM-77S 10/21/2010 Upper Aquifer
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	1.6 J	1.0 J	0.92 J	< 1.0 U	< 1.0 U	< 1.0 U	2.0 J	1.9 J	< 1.0 U
1,1-Dichloroethane	µg/L	< 5.0 U	1.0 J	0.94 J	< 1.0 U	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
1,1-Dichloroethene	µg/L	< 5.0 U	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
Benzene	µg/L	< 5.0 U	< 4.0 U	< 3.3 U	0.23 J	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	4.0 J	1.6 J	1.8 J	< 1.0 U	< 1.0 U	< 1.0 U	3.2 J	3.0 J	< 1.0 U
Ethylbenzene	µg/L	< 5.0 U	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
Tetrachloroethene	µg/L	130	94	90	7.2	20	19	150	140	< 1.0 U
Toluene	µg/L	< 5.0 U	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	0.95 J	0.99 J	0.74 J	< 1.0 U	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
Trichloroethene	µg/L	140	42	50	< 1.0 U	< 1.0 U	< 1.0 U	140	130	< 1.0 U
Vinyl chloride	µg/L	< 5.0 U	< 4.0 U	< 3.3 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.7 U	< 5.7 U	< 1.0 U
Xylene (total)	µg/L	< 10 U	< 8.0 U	< 6.7 U	< 2.0 U	< 2.0 U	< 2.0 U	< 11 U	< 11 U	< 2.0 U
Total VOCs	**µg/L**	**276.6**	**140.6**	**144.4**	**7.4**	**20.0**	**19.0**	**295.2**	**274.9**	**0.0**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Downgradient of the Site								
	Units	GM-65S 1/27/2010 Upper Aquifer	GM-65S 9/22/2010 Upper Aquifer	GM-79 9/22/2010 Upper Aquifer	GM-78 9/28/2010 Upper Aquifer	GM-80 4/9/2010 Upper Aquifer	GM-80 9/21/2010 Upper Aquifer	Duplicate 9/21/2010 QA/QC	GM-81 4/9/2010 Upper Aquifer	TW-2 9/28/2010 Upper Aquifer
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U
1,1-Dichloroethane	µg/L	< 1.0 U	0.34 J	0.23 J	< 1.0 U	< 1.0 U	0.30 J	0.35 J	0.92 J	2.0
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.2
cis-1,2-Dichloroethene	µg/L	0.22 J	0.63 J	< 1.0 U	< 1.0 U	0.85 J	1.3	1.4	1.5	2.1
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	13	9.9	< 1.0 U	11	1.9	2.6	2.6	< 1.0 U	0.52 J
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.30 J
Trichloroethene	µg/L	2.8	2.3	1.6	< 1.0 U	6.6	6.0	6.4	1.2	1.6
Vinyl chloride	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.71 J
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**16.0**	**13.2**	**2.3**	**11.0**	**9.4**	**10.2**	**10.8**	**3.9**	**8.4**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

	Units	Upgradient of Site HR-12 9/28/2010 Lower Aquifer	HR-15 9/24/2010 Lower Aquifer	GM-19D 9/27/2010 Lower Aquifer	GM-54 1/28/2010 Lower Aquifer	On Site GM-54 9/23/2010 Lower Aquifer	GM-68D 9/29/2010 Lower Aquifer	Duplicate 9/29/2010 QA/QC	GM-74D 4/9/2010 Lower Aquifer
Volatile Organic Compounds									
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
1,1-Dichloroethane	µg/L	2.1	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
cis-1,2-Dichloroethene	µg/L	1.2	3.0	2.4	< 5.0 U	< 2.5 U	3.0 J	2.8 J	8.0
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
Tetrachloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	120	92	100	100	98
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
Trichloroethene	µg/L	< 1.0 U	0.60 J	0.98 J	2.4 J	2.2 J	22	23	50
Vinyl chloride	µg/L	< 1.0 U	3.8	9.9	< 5.0 U	< 2.5 U	< 3.3 U	< 3.3 U	< 2.5 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U	< 5.0 U	< 6.7 U	< 6.7 U	< 5.0 U
Total VOCs	**µg/L**	**3.3**	**7.4**	**13.3**	**122.4**	**94.2**	**125.0**	**125.8**	**156.0**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		On Site			Downgradient of the Site					
		GM-75D	GM-75D	Duplicate	GM-9	Duplicate	GM-11	GM-15	GM-20D	GM-65D
		4/8/2010	9/29/2010	9/29/2010	9/22/2010	9/22/2010	9/22/2010	9/23/2010	9/22/2010	1/27/2010
	Units	Lower Aquifer	Lower Aquifer	QA/QC	Lower Aquifer	QA/QC	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	1.0	< 1.0 U	0.36 J	< 1.0 U	0.32 J	0.88 J
1,1-Dichloroethane	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	0.35 J	< 1.0 U	< 1.0 U	1.2	< 1.0 U	1.2
1,1-Dichloroethene	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	19	12	11	0.46 J	< 1.0 U	< 1.0 U	1.0	< 1.0 U	1.1
Ethylbenzene	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	320	260	270	< 1.0 UJ	7.2 J	1.5	< 1.0 U	2.2	< 1.0 U
Toluene	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	200	190	200	17 J	< 1.0 UJ	31	6.5	6.5	1.5
Vinyl chloride	µg/L	< 9.1 U	< 9.1 U	< 8.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 18 U	< 18 U	< 16 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**539.0**	**462.0**	**481.0**	**18.8**	**7.2**	**32.9**	**8.7**	**9.0**	**4.7**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		Downgradient of the Site					QA/QC			
		GM-77D	GM-83D	GM-84	GM-84	DN-13	Rinse Blank	Rinse Blank	Rinse Blank	Rinse Blank
		1/28/2010	9/22/2010	1/27/2010	9/23/2010	9/22/2010	1/27/2010	4/9/2010	9/22/2010	9/23/2010
	Units	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	Lower Aquifer	QA/QC	QA/QC	QA/QC	QA/QC
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.48 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	6.9	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	18	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.44 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	< 1.0 U	< 1.0 U	6.4	5.9	5.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	< 1.0 U	2.0	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**18.0**	**2.3**	**6.4**	**5.9**	**15.7**	**0**	**0**	**0**	**0**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Table C-1. Summary of Groundwater VOC Analytical Results with QA/QC from Upper/Lower Aquifer Monitoring Wells in 2010, Motors Liquidation Company, Moraine, Ohio.

		QA/QC								
	Units	Rinse Blank 9/27/2010 QA/QC	Rinse Blank 9/28/2010 QA/QC	Rinse Blank 9/29/2010 QA/QC	Trip Blank 1/27/2010 QA/QC	Trip Blank 4/7/2010 QA/QC	Trip Blank 9/21/2010 QA/QC	Trip Blank 9/23/2010 QA/QC	Trip Blank 9/28/2010 QA/QC	Trip Blank 9/29/2010 QA/QC
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethene	µg/L	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Ethylbenzene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trichloroethene	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene (total)	µg/L	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
J - Value is estimated.
U - Constituent not detected above laboratory reporting limit shown.
QA/QC - Quality Assurance/Quality Control.

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Appendix D

In-Situ Reactive Zones Performance Results for 2010

In-Situ Reactive Zones Performance Results

As described in Section 1.4 of the Site-Wide Groundwater Monitoring Report for 2010 (Monitoring Report), the carbon solution delivery network consisted of three reactive zones, RZ-1, RZ-3 (East and West) and RZ-4 (East). During 2010, a carbon solution was introduced into the groundwater through introduction points at RZ-1, RZ-3 (East and West), and RZ-4 (East) shown on Figures 3, and 4 of the Monitoring Report, respectively. RZ-1 was originally installed in 1999 as a nine well barrier downgradient of the Former Oil House Area source area, and then based on the performance of the ERD technology, RZ-1 was expanded into portions of the Former Oil House Area source area by the addition of 12 introduction points in 2002. RZ-3 was originally installed in 1999 and has been operated as a cut-off barrier (30 wells in RZ-3 East and 11 wells in RZ-3 West) to mitigate further downgradient VOC migration. In 2005, RZ-3 East was modified by the addition of 5 introduction wells (RZ-3RR through RZ-3VV) and cessation of introduction in 5 existing wells (RZ-3MM through RZ-3QQ) to improve performance at the far eastern edge of the plume. Using data obtained from the Supplemental Groundwater Investigation conducted in 2006, RZ-4 was designed and installed to address VOC concentrations present on the western side of the plume. RZ-4 consists of 15 introduction wells, 7 wells in RZ-4 West and 8 wells in RZ-4 East. The RZ-4 West wells are located in the southeast corner of the closed South Settling Lagoon and the RZ-4 East wells are located north of Landfill L1 and west of the Waste Pile/Staging Area. Introductions to RZ-4 began in August 2006. RZ-4 West was not in operation in 2010. The following sections discuss the monitoring completed to assess the effectiveness of the in-situ reactive zones and the results of this monitoring.

Reactive Zone Monitoring

Operation of the reactive zones was monitored through the collection of field parameter measurements and laboratory analyses of biogeochemical indicator parameters and volatile organic compounds (VOCs), according to the Site-Wide Groundwater Monitoring Plan (ARCADIS G&M, Inc. 2002). Field parameter measurements included: pH, specific conductivity, dissolved oxygen (DO), oxidation-reduction potential (ORP), and temperature. Biogeochemical parameters included manganese (total and dissolved), iron (total and dissolved), sulfate, sulfide, total organic carbon (TOC), chlorides, light hydrocarbons (ethane and ethene), and methane. The monitored VOCs included: benzene, toluene, ethylbenzene, xylenes, tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride, 1,1,1-trichloroethane (1,1,1-TCA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), and trans-1,2-dichloroethene (trans-1,2-DCE). The VOC data collected are presented in Tables D-1 through D-4 of this appendix. The bioattenuation parameter data is presented on Tables D-5 through D-8. An evaluation of pertinent monitoring data is presented in the following sections.

The operational monitoring data collected, as indicated above, can be broadly categorized as: (i) “primary” operational monitoring data, which tracks the actual operation of the remediation system and determines whether the operation is proceeding as planned, and (ii) “secondary” operational monitoring data, which assists in the occasional troubleshooting of the system. The

secondary data becomes important in the event that degradation of the VOCs is not proceeding as expected, and the cause cannot be determined from the primary operational monitoring data. The primary operational monitoring data includes pH, TOC, VOCs, ethene, ethane, and methane. Secondary operational monitoring data includes dissolved manganese, dissolved iron, sulfate, and ORP. The primary operational data for select monitoring wells is discussed below and presented graphically on Figures D-1 through D-3.

The purpose of upgradient and downgradient monitor wells, separate from the introduction points within the reactive zones, is to collect and compare data before and after biodegradation by the stimulated microbial population. Locations of these wells are shown on Figures 3 and 4 of the Monitoring Report.

- At RZ-1, GM-29 is designated as the upgradient monitoring well, while GM-28 is designated as the downgradient monitor well. These wells are ideally positioned, relative to estimated groundwater travel time, approximately 100 days upgradient and 100 days downgradient from the original introduction wells installed to create the RZ-1 introduction zone (line of nine introduction wells, RZ-1A through 1I, placed in an East-West direction). GM-29 is located within the area of the RZ-1 expansion wells (twelve introduction wells placed in two rows north of the original nine wells, RZ-1J through 1U). Therefore, GM-23 is also used as an upgradient monitoring point because this well is located within the source area.

- For RZ-3 West, monitor well GM-19S is used as the upgradient well. It should be noted that as of August 2006 GM-19S is now the downgradient monitoring well for RZ-4 East. At RZ-3 West, GM-32, which is within the introduction zone due to its location being constrained by the proximity of Landfill L1, is designated as the downgradient monitor well. Monitoring well GM-32 is only analyzed for TOC, as this well is located in the early stages of the reactive zone due to its proximity to the introduction points. Annual data collected from GM-8 and GM-6 (VOCs only), which are further downgradient from the introduction zone and located along the west side of Landfill L1, have also been evaluated with respect to monitoring the performance of RZ-3 West. At RZ-3 West, carbon solution is introduced in thirty wells, RZ-3A through RZ-3DD.

- For RZ-3 East, GM-22 is designated as the upgradient monitor well and GM-21 is designated as the downgradient monitor well. At RZ-3 East, carbon solution is introduced in the original wells, RZ-3GG through RZ-3KK, and five additional wells, RZ-3RR through RZ-3VV.

- For RZ-4 East monitoring well GM-19S is used at the downgradient monitoring well. For RZ-4 West monitoring well pair GM-63 and GM-64 are used as the downgradient monitoring wells. This well pair has screened intervals in the intermediate and deep portions of the upper aquifer.

In 2010, in general, a target volume of 800 gallons of 5 percent molasses solution (approximately 17,400 milligrams per liter [mg/L] TOC) was injected into the introduction wells of RZ-1 during

February through December. The introduction wells at RZ-3 West (RZ-3A through RZ-3DD) received a target volume of approximately 1,600 gallons of 2 percent molasses solution (approximately 17,400 mg/L TOC) in the months of February through December. RZ-3 East introduction wells RZ-3GG through RZ-3KK received a target volume of approximately 1,600 gallons of 2 percent molasses solution (approximately 17,400 mg/L TOC) in February through December 2010. The RZ-3 East replacement wells (RZ-3RR through RZ-3VV) received a target volume of approximately 1,600 gallons of 2 percent molasses solution (approximately 9,405 mg/L TOC) in the same months as RZ-3GG through RZ-3KK in 2010. A target volume of 3,000 gallons of 2 percent molasses solution (approximately 6,960 mg/L TOC) was injected into the RZ-4 East wells in February through December 2010. Table 2 in the Monitoring Report presents the carbon solution introduction volumes for different introduction wells in 2010.

Analysis of Primary Operational Monitoring Data

The primary operational data is comprised of a limited number of variables that are monitored at a frequency necessary to supply the information required for the operation of the remediation system. The entire data set is presented in Tables D-1 through D-8. These tables are organized such that upgradient and downgradient changes can be easily identified for each reactive zone from 1999 to 2010. Figures D-1 through D-3 present the primary operational data (pH, TOC, methane, VOCs, ethane, and ethene) graphically for monitoring wells used for monitoring the effectiveness of each of the IRZs (GM-23, GM-29, GM-28, GM-8, GM-21, and GM-19S). The graphs are organized to allow a simple comparison of the trends in each monitoring well for pH, TOC, methane, VOCs, ethene, ethane, and total parent-daughter compound molarity. A discussion of the primary operational data is provided below.

pH

The preferred pH range for reductive dechlorination is between 6 and 8, and the acceptable pH range extends from 5 to 9. All pH measurements collected in 2010 from upgradient and downgradient monitoring wells were within the acceptable pH range.

Total Organic Carbon/Methane

At RZ-1, the reductive dechlorination process is continuing effectively even though the TOC levels at the designated downgradient well, GM-28, is 7 mg/L which is at background levels. Considering the differences in the VOC concentrations at the upgradient wells GM-29 and GM-23, and the VOC concentrations at GM-28, the RZ is performing as an effective barrier, reducing the total target VOC concentrations from 1,107 micrograms per liter (µg/L) in GM-29 and 1,073 µg/L in GM-23 to 10.4 µg/L at GM-28. Based on the TOC values in the RZ-1 injectate, the carbon was consumed rapidly by an active soil microbial community. Methane concentrations in GM-28 continue to be sustained above background concentrations, which provides evidence that methanogenesis is occurring and that the desired reducing conditions are being sustained in the

reactive zone. Methane concentrations in GM-29 remain above the background levels observed in this monitoring well in the 1999 sampling before the start of carbon introductions.

Concentrations of TOC at RZ-3 West downgradient well GM-32 were sustained above background levels in 2010. Concentrations of TOC and methane observed at further downgradient wells were above background levels in GM-8 in 2010. Concentrations of TOC observed in groundwater samples collected from GM-21, which is the downgradient well for RZ-3 East, were above background levels along with dissolved methane concentrations indicating that the groundwater is anaerobic at GM-21.

Analytical results from GM-19S, the downgradient monitoring well for RZ-4 East, exhibit a common ERD signature. An initial spike in TOC (September 2006 sampling event) above background concentrations followed by a spike in total parent-daughter ethene molarity (indicating that target compounds may have been de-sorbed from the aquifer soil-matrix), and increasing methane concentrations indicating that the carbon substrate loading is adequate to support methanogenesis and reductive dechlorination. Concentrations of TOC and methane in 2010 were sustained at similar levels observed in 2009.

VOC Analytical Results

The groundwater analytical data for the site-specific list of VOCs are presented in Table D-1 for RZ-1, Table D-2 for RZ-3 West, Table D-3 for RZ-3 East, and Table D-4 for RZ-4 East in the Monitoring Report. Additionally, the degradation of PCE and TCE (parent compounds) to cis-1,2-DCE, vinyl chloride (daughter products), and ethene and ethane (end products) are provided with the pH, TOC, and methane data for the upgradient and downgradient monitor wells in RZ-1 (GM-23, GM-29, and GM-28 Figure D-1), RZ-3 West (GM-8 Figure D-2), RZ-3 East (GM-21 Figure D-2), and RZ-4 East (GM-19S Figure D-3).

The following bullets summarize the observations and trends evident among the reactive zones at the Moraine Facilities which indicate that enhanced reduction of the targeted chlorinated VOCs is progressing as a result of the carbon introduction process:

- Comparing the 2010 profiles of chlorinated compounds in the upgradient and downgradient wells in RZ-1, it is observed that degradation of the chlorinated VOCs was sustained throughout 2010. The total chlorinated VOC concentrations in GM-29 have decreased in 2010 as compared to 2009 (1,111 µg/L in 2009 and 1,107 µg/L in 2010). Total chlorinated VOC concentrations in GM-23 decreased from 7,792 µg/L in 2007 to 4,229 µg/L in 2008 to 2,263 µg/L in 2009 and to 1,073 µg/L in 2010. This well is upgradient to the original RZ-1 barrier.

- Data from monitoring wells GM-8 and GM-6, which are located downgradient of RZ-3 West along the west side of Landfill L1, were considered to evaluate the effect of carbon introductions at RZ-3 West. Concentrations of total chlorinated VOCs at GM-8 remained steady in 2010 (8.9 µg/L) compared to 2009 (14.29 µg/L). Though GM-6 is located further downgradient,

concentrations of PCE and TCE have consistently decreased since 1998 to 2009 with a slight increase in 2010. It is expected that consistent carbon introduction at RZ-3 West will eventually reduce the concentrations of all chlorinated VOCs at GM-6.

- Total chlorinated VOC concentrations in monitoring well GM-21, which is the downgradient monitor well for RZ-3 East, have remained significantly lower compared to baseline conditions since the installation of Reactive Zone introduction wells RZ-3RR through RZ-3VV. Concentration of TCE has a slight increase from 2.4 µg/L in 2009 to 3.2 µg/L in 2010.

- Data from monitoring well GM-19S, downgradient of RZ-4 East has exhibited a strong decreasing trend in total chlorinated VOC concentrations falling from 706.8 µg/L in September 2006 to 10.0 µg/L in September 2010.

- The concentrations of VOCs at the influent to the air-stripper tower are being monitored on a monthly basis since the startup of the air stripper unit on January 31, 1996 (Figure 7 of the Monitoring Report). The first monitoring event was in February 1996, and the introduction of carbon in RZ-3 commenced in December 1999. On reviewing the data presented in Figure 7, it can be observed that the concentrations of VOCs in 2010 remained consistent with the 2009 monitoring data.

Conclusions

The following observations and conclusions can be made:

- Aquifer conditions were reducing within and downgradient of the reactive zones due to the introduction of carbohydrate, as evidenced by the field parameters and biogeochemical data;

- The target compounds (PCE and TCE) were reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to end products (ethene and ethane) based on the VOC and light hydrocarbon data;

- Enhanced reductive dechlorination continued to achieve the desired reduction of VOC concentrations in groundwater.

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Table D-1. Summary of Annual Groundwater Analytical Results from Reactive Zone 1 Wells, Motors Liquidation Company, Moraine, Ohio

RZ-1		Sidegradient Well GM-29																	
Constituents	**Units**	**9/1/99**	**2/22/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/13/01**	**12/12/01**	**6/13/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/15/04**	**10/17/05**	**9/28/06**	**9/26/07**	**10/6/08**	**11/17/09**	**9/29/10**
Volatile Organic Compounds																				
1,1,1-Trichloroethane	µg/L	37.8	36.0	32.5	24.5	27.0	23.8J	<50	19J	17	16J	< 50	18J	21 J	19 J	17 J	15 J	12 J	18	11 J
1,1-Dichloroethane	µg/L	4.3	4.1	6.3	16.6	10.8	6.3J	<50	<50	<50	<40	< 50	<33	< 50 U	18 J	15 J	15 J	11 J	12	11 J
1,1-Dichloroethene	µg/L	1.3	1.1	1.6	3.1	3.5	3.0J	<50	<50	<50	<40	< 50	<33	< 50 U	< 50 U	< 33 U	< 50 U	< 33 U	< 10 U	< 20 U
Benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0UJ	<50	<50	<50	<40	< 50	<33	< 50 U	< 50 U	< 33 U	< 50 U	< 33 U	< 10 U	< 20 U
cis-1,2-Dichloroethene	µg/L	320	223	1,190J	2,871	2,170	2,050J	1,800	1,800	1,600	1,300	950	1,200	1,200	1,600	1,300	1,200	900	600	660
Ethylbenzene	µg/L	<1.0	1.4	<1.0	<1.0	<1.0	<1.0UJ	21J	<50	<50	<40	< 50	<33	< 50 U	< 50 U	< 33 U	< 50 U	< 33 U	< 10 U	< 20 U
Tetrachloroethene	µg/L	<20	38.7	24.6	20.0	24.4	24.8J	17J	22J	22	18J	47J	18J	20 J	15 J	15 J	18 J	17 J	21 J	17 J
Toluene	µg/L	<1.0	<1.0	<1.0	2.2	<1.0	<1.0UJ	<50	<50	<50	<40	< 50	<33	< 50 U	< 50 U	< 33 U	< 50 U	< 33 U	< 10 U	< 20 U
trans-1,2-Dichloroethene	µg/L	11.1	9.1	8.9	14.4	20.4	25.6J	26	24J	21	21	< 25	20	21 J	27 J	20 J	19 J	16 J	20	19 J
Trichloroethene	µg/L	878	758	649J	289	354	437J	270	320	380	310	280	390	440	390	310	350	300	370	330
Vinyl chloride	µg/L	3.8	1.0	1.7	788	362	276J	230	280	140	140	99	150	230	490	210	290	150	70	59
Xylenes	µg/L	<1.0	6.0	<1.0	<1.0	<1.0	<1.0UJ	52	<50	<50	<40	< 50	<33	< 50 U	< 100 U	< 67 U	< 100 U	< 67 U	< 20 U	< 40 U
Total VOCs	**µg/L**	**1,256.3**	**1,078.4**	**1,914.6**	**4,028.8**	**2,972.1**	**2,846.5**	**2,416**	**2,465**	**2,180**	**1,805**	**1,376**	**1,796**	**1,932**	**2,559**	**1,887**	**1,907**	**1,406**	**1,111**	**1,107**

µg/L - Micrograms per Liter.
J - Value is estimated.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
< - Constituent not detected above laboratory reporting limit shown.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September and October 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-1. Summary of Annual Groundwater Analytical Results from Reactive Zone 1 Wells, Motors Liquidation Company, Moraine, Ohio

RZ-1		Upgradient Well GM-23																	
Constituents	**Units**	**9/2/99**	**2/21/00**	**5/31/00**	**9/20/00**	**3/20/01**	**6/26/01**	**11/12/01**	**12/12/01**	**6/13/02**	**9/26/02**	**5/22/03**	**9/23/03**	**9/14/04**	**10/17/05**	**9/28/06**	**9/27/07**	**10/23/08**	**11/17/09**	**9/29/10**
Volatile Organic Compounds																				
1,1,1-Trichloroethane	µg/L	7.2	< 50	< 20	2.0	3.1	1.5	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 560 U	< 330 U	< 200 U	< 62 U	< 20 U	< 22 U
1,1-Dichloroethane	µg/L	32.5	< 50	12.8 J	16.3	17.9	3.7	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 560 U	< 330 U	< 200 U	< 62 U	5.0 J	< 22 U
1,1-Dichloroethene	µg/L	17.2	<50	6.6 J	5.1	15.9	16.3	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 560 U	< 330 U	< 200 U	< 62 U	< 20 U	< 22 U
Benzene	µg/L	1.9	< 50	< 20	< 1.0	1.4	< 1.0	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 560 U	< 330 U	< 200 U	< 62 U	< 20 U	< 22 U
cis-1,2-Dichloroethene	µg/L	7,530	10,400 D	4,080 J	5,620	9,640	11,000	8,400	7,200	9,900	7,700	6,800	5,800	4,600	19,000	11,000	4,700	2,000	1,100	490
Ethylbenzene	µg/L	< 1.0	<50	< 20	< 1.0	<1.0	< 1.0	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 560 U	< 330 U	< 200 U	< 62 U	< 20 U	< 22 U
Tetrachloroethene	µg/L	6,250	7,280 J	6,200 J	3,470	2,910	8,600	15,000	14,000	8,400	10,000	12,000	12,000	6,700	2,300	370	280	71	19 J	50
Toluene	µg/L	<1.0	< 50	< 20	< 1.0	< 1.0	2.3	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 560 U	< 330 U	< 200 U	< 62 U	< 20 U	< 22 U
trans-1,2-Dichloroethene	µg/L	54.5	118 J	39.8 J	33.2	85.5	60.8	<210	< 250	<170	< 200	< 310 U	< 250 U	< 250 U	< 560 U	270 J	130 J	58 J	31	16 J
Trichloroethene	µg/L	1,460	1,350 D	1,480 J	609	745	1,780 J	2,200	2,100	1,900	1,700	1,500	1,600	1,100	490 J	95 J	82 J	< 62 U	8.3 J	17 J
Vinyl chloride	µg/L	2,500	2,420 J	140 J	801	765	68	1200	< 500	810	540	1700	690	870	2,800	4,100	2,600	2,100	1,100	500
Xylenes	µg/L	< 1.0	< 50	< 20	< 1.0	< 1.0	1.4	< 420	< 500	< 330	< 400	< 620 U	< 500 U	< 500 U	< 1100 U	< 670 U	< 400 U	< 120 U	< 40 U	< 44 U
Total VOCs	**µg/L**	**17,853.3**	**21,568**	**11,959.2**	**10,556.6**	**14,183.8**	**21,533.8**	**26,800**	**23,300**	**21,010**	**19,940**	**22,000**	**20,090**	**13,270**	**24,590**	**15,835**	**7,792**	**4,229**	**2,263**	**1,073**

µg/L - Micrograms per Liter.
J - Value is estimated.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
< - Constituent not detected above laboratory reporting limit shown.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September and October 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-1. Summary of Annual Groundwater Analytical Results from Reactive Zone 1 Wells, Motors Liquidation Company, Moraine, Ohio

RZ-1		Downgradient Well GM-28																		
Constituents	**Units**	**9/1/99**	**2/23/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/15/01**	**12/12/01**	**7/21/02**	**9/24/02**	**5/23/03**	**10/1/03**	**4/30/04**	**9/15/04**	**10/18/05**	**9/27/06**	**9/20/07**	**10/22/08**	**11/16/09**	**9/28/10**
Volatile Organic Compounds																					
1,1,1-Trichloroethane	µg/L	17.7	23.2	18.1	5.0	<1.0	<1.0	<10	<5.0UJ	<4.0	<1	< 1	<1.0	< 1	< 1 U	< 1.0 U	< 1 U	< 1 U	< 5 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	3.3	4.2	11.8	9.9	<1.0	<1.0	<10	<5.0UJ	<4.0	2.7	4.2	3.3	3.5	3.3	4.0	4.2	4.6	2.2 J	3.6	4.6
1,1-Dichloroethene	µg/L	<1.0	<1.0	3.8	<1.0	<1.0	<1.0	<10	<5.0UJ	<4.0	<1	< 1	<1.0	< 1	< 1 U	< 1.0 U	< 1 U	< 1 U	< 5 U	< 1.0 U	< 1.0 U
Benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<5.0UJ	<4.0	<1	< 1	<1.0	< 1	< 1 U	< 1.0 U	< 1 U	< 1 U	< 5 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	175	503	2,700	37.0	7.7	352	<5.0	2.2UJ	<2.0	1.1	0.66	0.58	0.45 J	0.41 J	0.32 J	0.26 J	0.72 J	6.9	2.3	2.1
Ethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<5.0UJ	<4.0	<1	< 1	0.28J	< 1	< 1 U	< 1.0 U	< 1 U	< 1 U	< 5 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	316	88.4	30.2	2.3	2.8	<1.0	<10	<5.0UJ	<4.0	<1	0.95J	<1.0	< 1	0.88 J	< 1.0 U	< 1 U	< 1 U	< 5 U	< 1.0 U	< 1.0 U
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	< 1.8UJ	<4.0	<1.3	1	1.0	< 1	< 1 U	< 1.0 U	< 1 U	< 1 U	< 5 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	9.2	9.7	36.5	22.3	17.6	<1.0	11	11J	8.6	11	9.2	4.0	2.2	1.2	0.63 J	0.66 J	0.58 J	1.3 J	1.7	1.5
Trichloroethene	µg/L	768	833	14.8	1.6	1.8	<1.0	<10	<5.0UJ	<4.0	0.86J	3.1	1.6	1.6	1.4	0.66 J	0.43 J	0.51 J	< 5 U	0.58 J	< 1.0 U
Vinyl chloride	µg/L	3.2	<1.0	1.9	12.4	2.6	<1.0	<10	<5.0UJ	<4.0	<1	< 1	0.53J	< 1	0.44 J	1.1	0.42 J	1.2	6.5	3.3	2.2
Xylenes	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<5.0UJ	<4.0	<1.2	0.87J	1.6	< 1	< 1 U	< 2.0 U	< 2 U	< 2 U	< 10 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**1,292.4**	**1,461.5**	**2,817.1**	**90.5**	**32.5**	**352**	**11**	**11**	**8.6**	**15.66**	**19.98**	**12.89**	**7.75**	**7.63**	**6.71**	**5.97**	**7.61**	**16.9**	**11.48**	**10.4**

µg/L - Micrograms per Liter.
J - Value is estimated.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
< - Constituent not detected above laboratory reporting limit shown.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September and October 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-2. Summary of Annual Groundwater Analytical Results form Reactive Zone 3 West Wells, Motors Liquidation Company, Moraine, Ohio.

RZ-3 West		Upgradient Well EAST														
Constituents	**Units**	**9/21/99**	**2/23/00**	**5/25/00**	**9/22/00**	**3/19/01**	**6/25/01**	**11/12/01**	**12/11/01**	**6/12/02**	**9/23/02**	**5/21/03**	**9/25/03**	**9/13/04**	**10/18/05**	**9/21/06**
Volatile Organic Compounds																
1,1,1-Trichloroethane	µg/L	21.0	20.6	20.5	22.2	19.3	16.7	13	12	14	10	6.2	7.1	5.7	5.9	10
1,1-Dichloroethane	µg/L	5.4	7.3	7.7	7.7	5.9	5.5	6.2	5.3	6.0	3.9	1.9	2.3	0.72 J	3.0	3.2
1,1-Dichloroethene	µg/L	<1.0	<1.0	1.02J	1.2	1.2	<1.0	0.90J	<3.3	1.3	0.73J	< 1.4	<2.0	0.34 J	< 1.0 U	0.59 J
Benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<2.5	<2	< 1.4	<2.0	< 1 U	< 1.0 U	< 1.4 U
cis-1,2-Dichloroethene	µg/L	9.1	24.0	32.0	77.3	117	80.1	51	51	33	8.8	4.5	4.3	1.6	3.1	4.1
Ethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<2.5	<2	< 1.4	<2.0	< 1	< 1.0 U	< 1.4 U
Tetrachloroethene	µg/L	61.0	77.1	54.6	55.8	49.9	59.3	56	49	37	49	42	47	40	47	41
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<2.5	<2	< 1.4	<2.0	< 1 U	< 1.0 U	< 1.4 U
trans-1,2-Dichloroethene	µg/L	<1.0	2.0	1.5	1.8	5.8	3.3	2.7	2.4	1.3	<1	< 0.72	<1.0	< 0.5 U	< 1.0 U	< 1.4 U
Trichloroethene	µg/L	56.1	90.1	81.3	97.2	105	117	92	94	75	46	29	35	23	23	29
Vinyl chloride	µg/L	<1.0	5.3	1.2	3.0	4.8	<1.0	1.5J	0.66J	0.48	<2	< 1.4	<2.0	< 1 U	1.2	< 1.4 U
Xylenes	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<2.5	<2	< 1.4	<2.0	< 1 U	< 2.0 U	< 2.9 U
Total VOCs	**µg/L**	**152.6**	**226.4**	**199.82**	**266.2**	**308.9**	**281.9**	**223.3**	**214.36**	**168.08**	**118.43**	**83.6**	**95.7**	**71.36**	**83.2**	**87.89**

µg/L - Micrograms per Liter.
J - Value is estimated.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
< - Constituent not detected above laboratory reporting limit shown.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September and October 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-2. Summary of Annual Groundwater Analytical Results form Reactive Zone 3 West Wells, Motors Liquidation Company, Moraine, Ohio.

RZ-3 West		Downgradient Well GM-32																
Constituents	**Units**	**9/22/99**	**2/28/00**	**5/30/00**	**9/25/00**	**3/19/01**	**6/25/01**	**11/12/01**	**12/11/01**	**6/12/02**	**9/20/02**	**5/23/03**	**10/1/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**
Volatile Organic Compounds																		
1,1,1-Trichloroethane	µg/L	<1.0	<10	<100	<1.0	<50	9.2	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
1,1-Dichloroethane	µg/L	3.3	101	46.0J	35.9	<50	3.1	6.2	<100	12	9.7J	5.5	5.5	3 J	4.9 J	3.7 J	4.3 J	4 J
1,1-Dichloroethene	µg/L	<1.0	<10	<100	<1.0	<50	<1.0	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
Benzene	µg/L	<1.0	<10	<100	<1.0	<50	<1.0	4.3J	<100	4.0	<10	1.6	1.5J	< 10 U	< 10 U	< 10 U	1.6 J	< 10 U
cis-1,2-Dichloroethene	µg/L	2.6	<10	<100	<1.0	<50	32.0	<2.5	<50	<10	<5	0.66	<1.0	< 5 U	< 10 U	< 10 U	< 5 U	< 10 U
Ethylbenzene	µg/L	<1.0	<10	<100	<1.0	<50	<1.0	0.79J	<100	<20	<10	0.65J	0.73J	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
Tetrachloroethene	µg/L	1.2	<10	<100	<1.0	<50	37.6	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
Toluene	µg/L	1.0	20.6	<100	10.4	<50	<1.0	12	<100	4.9	<10	2.2	2.3	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
trans-1,2-Dichloroethene	µg/L	4.2	111	41.0J	20.3	<50	2.5	2.9	<50	3.0	<5	1.6	1.0	< 5 U	< 10 U	< 10 U	1 J	< 10 U
Trichloroethene	µg/L	3.2	<10	<100	<1.0	<50	107	<5.0	<100	<20	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
Vinyl chloride	µg/L	3.0	<10	<100	<1.0	<50	<1.0	1.1J	<100	3.0	<10	< 1 U	<2.0	< 10 U	< 10 U	< 10 U	< 5 U	< 10 U
Xylenes	µg/L	<1.0	<10	<100	<1.0	<50	<1.0	3.0J	<100	<20	<10	2.1	3.6	< 10 U	< 20 U	< 20 U	3.4 J	< 20 U
Total VOCs	**µg/L**	**18.5**	**232.6**	**87**	**66.6**	**0**	**191.4**	**30.29**	**0**	**26.9**	**9.7**	**14.31**	**14.63**	**3**	**4.9**	**3.7**	**10.3**	**4**

µg/L - Micrograms per Liter.
J - Value is estimated.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
< - Constituent not detected above laboratory reporting limit shown.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September and October 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-2. Summary of Annual Groundwater Analytical Results form Reactive Zone 3 West Wells, Motors Liquidation Company, Moraine, Ohio.

RZ-3 West		Downgradient Well GM-8													Downgradient Well GM-6											
Constituents	**Units**	**3/6/98**	**9/20/99**	**9/26/00**	**11/9/01**	**9/20/02**	**10/1/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**11/16/09**	**9/27/10**	**3/6/98**	**9/20/99**	**9/26/00**	**11/9/01**	**9/20/02**	**10/2/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/24/08**	**11/11/09**	**9/27/10**
Volatile Organic Compounds																										
1,1,1-Trichloroethane	µg/L	6.7	1.9	<1.0	0.40J	<2.0	<2.0	< 1 U	< 1.0 U	< 5 U	< 2 U	< 1 U	<1.0 U	< 1.0 U	36.2	24.6	12.1	3.9	1.4J	0.19J	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	<1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	49.3	30.2	36.5	40	63	48	15	16	18	9.1	1.7	2.9	3	35.3	33.2	13.0	14	60	20	18	21	16	26	< 8.4 U	6.9	6.2
1,1-Dichloroethene	µg/L	1.0	<1.0	<1.0	< 1.0	<2.0	<2.0	< 1 U	< 1.0 U	< 5 U	< 2 U	< 1 U	<1.0 U	< 1 U	<1.0	1.2	<1.0	< 2.0	<2.0	<1.0	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	<1.0 U	< 1 U
Benzene	µg/L	2.3	3.4	1.1	0.78J	5.5	5.4	4.2	3.5	2.1 J	2.4	6.8	3.9	4.7	<1.0	<1.0	<1.0	< 2.0	2.2	1.0	1.7	0.49 J	< 1 U	0.42 J	1.2	1.3	1.1
cis-1,2-Dichloroethene	µg/L	56.1	26.2	1.5	2.0	5.5	<1.0	< 0.5	0.24 J	2.1 J	< 2 U	< 1 U	<1.0 U	< 1.0 U	82.4	52.9	41.0	8.2	43	13	10	20	18	16	6.7	3.4	4.9
Ethylbenzene	µg/L	28.9	20.7	12.5	0.40J	7.5	11	19	29	< 5 U	1.7 J	8.6	5.5	0.33 J	<1.0	<10.0	<1.0	< 2.0	<2.0	0.22J	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	<1.0 U	< 1.0 U
Tetrachloroethene	µg/L	20.0	14.8	<1.0	< 1.0	<2.0	<2.0	< 1 U	< 1.0 U	< 5 U	< 2 U	< 1 U	0.34 J	< 1.0 U	94.0	81.4	51.5	14	14	11	2.6	0.34 J	< 1 U	< 1 U	< 1 U	<1.0 U	0.38 J
Toluene	µg/L	<1.0	<1.0	<1.0	< 1.0	1.8J	1.2J	< 1 U	0.39 J	< 5 U	< 2 U	< 1 U	0.13 J	0.18 J	<1.0	<1.0	<1.0	< 2.0	<2.0	0.83J	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	<1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	10.1	12.0	5.4	3.6	9	4.4	1.1	0.99 J	1 J	0.9 J	0.27 J	0.22 J	0.29 J	2.4	2.0	2.2	1.8	8.6	2.5	1.9	2.1	1.6	2.6	1.3	0.68 J	0.89 J
Trichloroethene	µg/L	95.2	30.4	6.6	4.4	<2.0	<2.0	< 1 U	< 1.0 U	< 5 U	< 2 U	< 1 U	<1.0 U	< 1.0 U	119	78.2	56.6	48	33	23	5.7	1.4	0.35 J	0.34 J	< 1 U	3.8	6.6
Vinyl chloride	µg/L	10.1	8.4	2.4	1.9	5.8	<2.0	0.48 J	0.73 J	3.2 J	< 2 U	0.48 J	<1.0 U	0.44 J	2.3	1.6	3.7	1.9J	12	3.3	3	11	7.3	6.7	2.1	1.2	1.6
Xylenes	µg/L	10.3	2.3	1.9	0.39J	1.5J	2.0	1.1	< 2.0 U	< 10 U	0.9 J	3.9	1.3 J	< 2.0 U	<1.0	<10	<1.0	< 2.0	< 2.0	1.0	< 1 U	< 2.0 U	< 2 U	< 2 U	< 2 U	<2.0 U	< 2.0 U
Total VOCs	**µg/L**	**290**	**150.3**	**67.9**	**53.87**	**99.6**	**72**	**40.88**	**50.85**	**26.4**	**15**	**21.75**	**14.29**	**8.94**	**371.6**	**275.1**	**180.1**	**91.8**	**174.2**	**76.04**	**42.9**	**56.33**	**43.25**	**52.06**	**11.3**	**17.28**	**21.67**

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U - Constituent not detected above laboratory reporting limit shown.
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Carbon source introductions began in December 1999.

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Table D-3. Summary of Annual Groundwater Analytical Results from Reactive Zone 3 East Wells, Motors Liquidation Company, Moraine, Ohio.

RZ-3 East		Upgradient Well GM-22																
Constituents	**Units**	**9/1/99**	**2/23/00**	**5/25/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/13/01**	**12/12/01**	**6/13/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/14/04**	**10/17/05**	**9/20/06**	**9/26/07**	**10/3/08**
Volatile Organic Compounds																		
1,1,1-Trichloroethane	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.4	0.63J	0.47	0.93J	0.61J	1.2	1.7	0.96 J	0.47 J	0.66 J	0.73 J
1,1-Dichloroethane	µg/L	<1.0	2.2	2.8	2.4	3.8	4.7	6.8	6.6	4.1	<2	1.2	1.0	2.1	1.0	1.1	0.72 J	< 1 U
1,1-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.58J	0.32J	<1.0	<2	< 1	<1.0	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U
Benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	< 1	<1.0	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U
cis-1,2-Dichloroethene	µg/L	<1.0	3.1	4.0	1.9	3.5	5.1	8.5	7.8	3.6	<1	0.46J	0.45J	0.9	0.36 J	0.28 J	0.24 J	< 1 U
Ethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	< 1	<1.0	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	µg/L	3.6	2.8	3.0	1.6	2.2	3.2	4.9	2.9	1.9	2.3	2.5	2.9	2.9	3.6	3.2	3.3	5.7
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	0.32J	<1.0	<2	0.49J	<1.0	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U
trans-1,2-Dichloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.17J	<0.50	<0.50	<1	< 0.5	<0.50	< 0.5 U	< 1.0 U	< 1 U	< 1 U	< 1 U
Trichloroethene	µg/L	4.0	2.5	3.6	<1.0	1.6	2.8	7.5	2.3	2.1	7.6	6	7.6	10	4.7	3	3.3	5.7
Vinyl chloride	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.60J	0.85J	0.38	<2	< 1	<1.0	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U
Xylenes	µg/L	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	< 1	<1.0	< 1 U	< 2.0 U	< 2 U	< 2 U	< 2 U
Total VOCs	**µg/L**	**7.6**	**11.8**	**13.4**	**5.9**	**11.1**	**16.9**	**33.45**	**21.72**	**12.55**	**10.83**	**11.26**	**13.15**	**17.6**	**10.62**	**8.05**	**8.22**	**12.13**

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Table D-3. Summary of Annual Groundwater Analytical Results from Reactive Zone 3 East Wells, Motors Liquidation Company, Moraine, Ohio.

RZ-3 East		Downgradient Well GM-21																		
Constituents	**Units**	**9/22/99**	**2/23/00**	**5/26/00**	**9/22/00**	**3/19/01**	**6/25/01**	**11/13/01**	**12/11/01**	**6/12/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/14/04**	**10/17/05**	**9/20/06**	**12/1/06**	**9/26/07**	**10/3/08**	**11/16/09**	**9/28/10**
Volatile Organic Compounds																					
1,1,1-Trichloroethane	µg/L	53.1	15.4	27.9	15.7	7.0	7.7	6.9	1.2	23	31	18	31	26	4.3	12	4.7	8.5	8.7	2.4	0.75 J
1,1-Dichloroethane	µg/L	9.0	5.8	6.8	5.6	5.1	4.1	3.8J	0.71J	5.4	5J	4.1J	6.9J	4.2 J	3.4	8.6	6.4	18	15	22	20
1,1-Dichloroethene	µg/L	3.9	1.6	2.4	1.6	1.2	<1.0	<5.0	<1.0	3.6	2.6J	< 6.7	2.0J	3.1 J	< 1.0 U	0.19 J	0.2 J	< 1.4 U	0.33 J	< 1.0 U	< 1.0 U
Benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<6.0	<6.7	< 6.7	<8.0	< 9.1 U	< 1.0 U	< 1 U	< 1 U	< 1.4 U	< 1.4 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	66.4	35.9	47.8	38.7	39.5	37.8	39	6.5	48	43	130	100	56	20	14	8.2	26	38	7.8	3.9
Ethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<6.0	<6.7	< 6.7	<8.0	< 9.1 U	< 1.0 U	< 1 U	< 1 U	< 1.4 U	< 1.4 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<6.0	<6.7	< 6.7	<8.0	< 9.1 U	< 1.0 U	< 1 U	< 1 U	< 1.4 U	0.56 J	< 1.0 U	< 1.0 U
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<6.0	<6.7	< 6.7	<8.0	< 9.1 U	< 1.0 U	< 1 U	< 1 U	< 1.4 U	< 1.4 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	7.8	9.3	7.4	12.9	16.4	15.7	15	2.8	8.3	5.1	2.2J	2.9J	7.9	22	4.3	4.8	2.5	4.7	4.4	3
Trichloroethene	µg/L	28.7	283	311	189	169	158	160	28	210	230	79	200	180	1.8	5.9	0.8 J	2.8	18	2.4	3.2
Vinyl chloride	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<6.0	<6.7	< 6.7	<8.0	< 9.1 U	13	9.3	4.7	12	19	6.6	3.6
Xylenes	µg/L	<1.0	2.3	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<6.0	<6.7	< 6.7	<8.0	< 9.1 U	< 2.0 U	< 2 U	< 2 U	< 2.9 U	< 2.9 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**168.9**	**353.3**	**403.3**	**263.5**	**238.2**	**223.3**	**224.7**	**39.21**	**298.3**	**316.7**	**233.3**	**342.8**	**277.2**	**64.5**	**54.29**	**29.8**	**69.8**	**104.29**	**45.6**	**34.45**

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J - Value is estimated.
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U - Constituent not detected above laboratory reporting limit shown.
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Carbon source introductions began in December 1999.

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Table D-4. Summary of Annual Groundwater Analytical Results from Reactive Zone 4 East Wells, Motors Liquidation Company, Moraine, Ohio.

RZ-4 East		Upgradient Well WEST			Downgradient Well GM-19S																
Constituents	**Units**	**9/21/99**	**2/23/00**	**5/25/00**	**9/20/99**	**5/24/00**	**9/22/00**	**3/19/01**	**6/25/01**	**11/12/01**	**6/12/02**	**9/26/02**	**5/21/03**	**9/25/03**	**9/13/04**	**10/18/05**	**9/21/06**	**9/17/07**	**9/23/08**	**11/17/09**	**4/7/10**	**9/27/10**
Volatile Organic Compounds																					
1,1,1-Trichloroethane	µg/L	24.8	25.1	27.4	16.0	17.9	14.5	11.9	9.6	7.6	7.2	6.3	12	13	14	13	9.7 J	0.59 J	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1-Dichloroethane	µg/L	25.6	24.5	32.5	7.7	7.0	4.4	4.1	2.9	2.9J	3.7	6.3	8.4	8.3	8.1	9.0	7 J	10	13	12	9.6	9.5
1,1-Dichloroethene	µg/L	<1.0	<1.0	<1.0	1.0	1.1	<1.0	<1.0	<1.0	<3.3	0.98	<4	< 4	1.6J	1.9 J	1.2 J	< 22 U	< 1 U	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U
Benzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	0.62	<4	< 4	<5.0	< 4 U	< 1.7 U	< 22 U	< 1 U	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U
cis-1,2-Dichloroethene	µg/L	125	34.5	29.0	34.6	42.9	37.6	38.2	31.5	26	28	39	81	89	61	29	660	0.3 J	0.68 J	0.27 J	0.27 J	< 1.0 U
Ethylbenzene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<4	< 4	<5.0	< 4 U	< 1.7 U	< 22 U	< 1 U	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U
Tetrachloroethene	µg/L	41.3	53.9	37.7	46.0	57.1	68.0	67.6	71.7	64	60	52	62	62	71	95	9.1 J	1.5	0.94 J	< 1.0 U	< 1.0 U	< 1.0 U
Toluene	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<4	< 4	<5.0	< 4 U	< 1.7 U	< 22 U	< 1 U	< 1 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-1,2-Dichloroethene	µg/L	<1.0	1.7	1.3	2.3	2.7	2.6	3.0	2.4	2.0	2.3	2.7	2.5	2.9	2.4	1.0 J	10 J	0.29 J	0.52 J	0.37 J	0.45 J	0.46 J
Trichloroethene	µg/L	37.3	108	103.0	71.1	104	104	107	121	97	110	110	120	140	120	140	11 J	0.46 J	3.0	0.22 J	< 1.0 U	< 1.0 U
Vinyl chloride	µg/L	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	<1.0	<3.3	0.70	5.2	< 4	<5.0	< 4 U	1.8	< 22 U	< 1 U	9.3	< 1.0 U	< 1.0 U	< 1.0 U
Xylenes	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.3	<3.3	<4	< 4	<5.0	< 4 U	< 3.3 U	< 44 U	< 2 U	< 2 U	< 2.0 U	< 2.0 U	< 2.0 U
Total VOCs	**µg/L**	**254**	**247.7**	**230.9**	**178.7**	**234.1**	**231.1**	**231.8**	**239.1**	**199.5**	**213.5**	**221.5**	**285.9**	**316.8**	**278.4**	**290**	**706.8**	**13.14**	**27.44**	**12.86**	**10.32**	**9.96**

µg/L - Micrograms per Liter.
J - Value is estimated.
UJ - Constituent not detected above laboratory reporting limit; reporting limit estimated.
< - Constituent not detected above laboratory reporting limit shown.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September and October 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-5. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 1, Motors Liquidation Company, Moraine, Ohio.

RZ-1		Sidegradient Well GM-29																		
Constituents	**Units**	**9/1/99**	**2/22/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/13/01**	**12/12/01**	**6/13/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/15/04**	**10/17/05**	**9/28/06**	**9/26/07**	**10/6/08**	**11/17/09**	**9/29/10**
Inorganics & TOC																				
Nitrate	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	<0.30	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.552	0.136	0.35	0.248	0.203	0.136	0.17B	0.17	1.5B	0.18B	0.67J	0.20J	0.17	0.18	1.3	0.3 J	< 0.19 U	0.296	0.451
Manganese (Dissolved)	mg/L	0.13	0.101	0.177	0.125	0.116	0.128	0.17B	0.15	0.13B	0.16B	0.15J	0.21J	0.15	0.14	0.12	0.16 J	< 0.16 U	0.118	0.113
Iron (Total)	mg/L	18	1.43	10.1	8.48	5.84	2.52	3.4	3.8	47.8B	3.8	28.6	4.9	3.2	4.6	< 0.1 U	8.9	< 5.4 U	13.8	19.6
Iron (Dissolved)	mg/L	0.24	0.13	2.78	3.09	<0.10	2.03	3.3	2.9	2.2B	2.8	2.4	3.6	2.7	3.7	2.9	3.4	< 3.9 U	3.3	2.97
Iron (Ferrous)	mg/L	0.02	0	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	90	126	31	29	31	37	65	48	63	76	91J	52	14 J	51	70	65	< 5 UJ	68	72
Sulfide	mg/L	<4	<1	<1	<1	<1	<1	1.3	<1	<1	<1	0.54B	1.6	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.56 J	< 1.0 U
Total Organic Carbon	mg/L	18	11	22	<1	7.57	7.3	10	10	8	8	7	9	9	11	13	15 J	16	9	8
Chloride	mg/L	254	426	508	373	337	262	600B	460	490	490	490	560J	540	370	380	360 J	< 1 U	210	160
Permanent Gases																				
Carbon Dioxide	mg/L	46.52	49.87	44.05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.02	0.66	1.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	20.29	18.7	15.61	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.01152	0.007699	0.00017	1.62	1.30	1.5	0.610	1.2	0.56	1.1	0.6	1.5	3.8	13	10	NA	16	8.1	5.7
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																				
Ethane	ng/L	5,641	1,861	751	639	460	17,000	20,000	28,000	14,000	16,000	7,400	9,900	13,000	170,000	350,000	NA	370,000	360,000	340,000
Ethene	ng/L	9,769	1,275	12,098	441,796	160,000	130,000	230,000	180,000	48,000	140,000	150,000	200,000	1,700,000	1,600,000 J	750,000	NA	420,000	140,000	59,000
Field Parameters																				
pH	S.U.	6.99	7.02	6.86	7.24	7.31	7.20	7.47	7.57	7.14	7.22	6.32	6.88	6.85	6.80	6.94	6.63	7.1	6.91	7.09
Specific Conductivity	umhos/cm	1,502	3,044	2,388	1,942	1,733	1,291	2,703	2,860	1,977	2,354	2,303	2,278	2,580	2,200	2,170	2,350	1,870	1,264	1,427
Dissolved Oxygen	mg/L	0.35	0.51	0.45	3.44	8.20	0.40	0.22	0.01	3.57	1.40	1.38	0.13	0.04	0.00	0.29	0.4	0.11	0.16	2.00
Redox Potential	mV	-526.6	19.6	-105.4	-35.0	-158.2	-166.4	-129.7	-168	-122.9	-91.3	-157.8	-118.6	-134	-153	-168	-139	-54	-140.1	-163
Temperature	°C	17.8	16.9	17.97	17.64	20.04	20.47	16.42	17.13	19.33	17.63	18.23	16.81	16.4	16.8	16.69	18	16.78	16.50	18.00

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-5. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 1, Motors Liquidation Company, Moraine, Ohio.

RZ-1		Upgradient Well GM-23														
Constituents	**Units**	**9/2/99**	**2/21/00**	**5/31/00**	**3/20/01**	**6/13/02**	**9/26/02**	**5/22/03**	**9/23/03**	**9/14/04**	**10/17/05**	**9/28/06**	**9/27/07**	**10/23/08**	**11/17/09**	**9/29/10**
Inorganics & TOC																
Nitrate	mg/L	0.08	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	3.83	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	0.94	2.84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	4.71	0.887	0.121	0.469	1.5 J	1.0 J	1.5 J	1.6 J	1.3 J	0.79	1.5	1.4 J	0.89	0.539	0.508
Manganese (Dissolved)	mg/L	0.346	0.841	0.101	0.311	1.3 J	0.68 J	1.5 J	1.7 J	1.2 J	0.81	1.5	1.3 J	0.90	0.516	0.492
Iron (Total)	mg/L	13.6	0.53	0.18	0.48	0.16 J	0.63	0.50	0.14	0.11	30.7	13.6	10.8	10.1	5.51	5.72
Iron (Dissolved)	mg/L	<0.10	<0.10	<0.10	< 1.0	<0.10	<0.10	<0.10	<0.10	<0.10	34.2	13.2	10	10	5.21	5.33
Iron (Ferrous)	mg/L	4	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	72	650	8040	1440	920	810	310 J	650	430 J	120	850	590	490	130	160
Sulfide	mg/L	<4	<1	<1	<1	<1	<1	<1 U	0.67 B	<1	<1	<1 U	< 1 U	< 1 U	0.73 J	< 1.0
Total Organic Carbon	mg/L	19	25	19	10.8	15 J	15	15	13	10 J	360	11	9	9	7	9
Chloride	mg/L	118	143	85	232	180	190	220	140 J	220	260	220	210	220	100	43
Permanent Gases																
Carbon Dioxide	mg/L	88.47	264.8	323.79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	0.96	1.56	17.78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	20.22	13.75	3.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.1248	0.72	0.02083	0.780	1.6	2.1	2.7	1.8	1.5	1.3	0.91	0.64	1.9	1.7	2.5
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																
Ethane	ng/L	6,878	14,644	1,037	11,000	25,000	32,000	44,000	23,000	17,000	16,000	12,000	7,100	21,000	31,000	36,000
Ethene	ng/L	580,916	439,458	569	260,000	230,000	230,000	1,200,000	270,000	260,000	500,000	900,000	370,000 J	960,000	2,100,000	1,700,000
Field Parameters																
pH	S.U.	6.80	6.62	6.31	6.64	6.81	6.76	5.59	6.73	7.04	5.66	6.69	6.34	7.74	6.80	6.89
Specific Conductivity	umhos/cm	1,160	2,856	6,720	3,448	2,290	2,390	1,683	2,258	2,130	2,570	2,740	2,470	1,465	1,184	1,395
Dissolved Oxygen	mg/L	0.65	0.78	10.48	8.38	4.23	0.42	1.76	0.85	0.00	0.00	0.40	0.44	0.11	0.16	0.23
Redox Potential	mV	122.2	158.7	194.2	160.4	346.5	215.6	247.9	198.8	57	-108	-108	-91	189	-90.1	-104.2
Temperature	^{o}C	17.89	17.6	26.45	19.08	16.40	19.06	17.91	17.38	16.30	16.50	16.78	17.50	17.12	17.15	18.89

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
^{o}C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-5. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 1, Motors Liquidation Company, Moraine, Ohio.

RZ-1		Downgradient Well GM-28																		
Constituents	**Units**	**9/1/99**	**2/23/00**	**5/26/00**	**9/21/00**	**3/20/01**	**6/26/01**	**11/15/01**	**12/12/01**	**7/21/02**	**9/24/02**	**5/23/03**	**10/1/03**	**4/30/04**	**9/15/04**	**10/18/05**	**9/27/06**	**9/20/07**	**10/22/08**	**11/16/09**	**9/28/10**
Inorganics & TOC																				
Nitrate	mg/L	0.08	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0.06	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	<0.30	0.68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	3.2	1.15	6.26	4.1	0.594	2.24	0.58	0.47	1.1	0.48B	0.69J	0.42J	0.34	0.37	0.45	0.46	0.44 J	1.4	0.468	0.468
Manganese (Dissolved)	mg/L	0.068	0.449	6.71	3.94	0.477	1.76	0.61	0.49	1.1	0.41B	0.29J	0.40J	0.32	0.36	0.45	0.43	0.43 J	1.5	0.444	0.466
Iron (Total)	mg/L	106	25.3	22.7	58.9	29.6	59	23.6	23.5	36.2	28.7	47.9	23.4J	17.6	15.7	16.1	14.5	11.7	23.4	11.3	11.6
Iron (Dissolved)	mg/L	<0.10	0.59	23.3	48.3	2.65	49.8	23.3	23.7	34.7	23.4	16.7	22.4J	16.4	15.1	15.2	13.1	10.7	23.7	10.2	10.6
Iron (Ferrous)	mg/L	0	0.03	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	89	43	<5	<5	9	106	<5	<5	<5	18	65J	31J	89	93 J	91	75	77	33	55	45
Sulfide	mg/L	<4	<1	<1	<1	<1	<1	1.5	<1.0	2.0	4.3	2.5	<1.0	< 1 U	< 1 U	< 1.0 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1.0
Total Organic Carbon	mg/L	15	24	742	571	90.0	360	74	68B	140	23	15	17	15 J	8	10	7	8 J	310	6	7
Chloride	mg/L	208	664	805	782	1030	508	730B	560	370	450	350	270J	320	340	320	320	300 J	260	220	170
Permanent Gases																					
Carbon Dioxide	mg/L	41.52	63.57	16.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	2.32	0.59	0.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	19.42	16.39	19.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.002487	0.001832	0.21	1.70	13.0	13.0	13	20	19	14	8.9	11	7.9	6.6	2.8	2.5	2.3	2.9	4.2	2.3
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																					
Ethane	ng/L	750	493	865	1,198	42,000	39,000	91,000	98,000	420,000	300,000	310,000	230,000	160,000	150,000	81,000	73,000	72,000	52,000	73,000	53,000
Ethene	ng/L	48	98	646	1,794,606	57,000	5,000	1,100	1,400	8,800	12,000	74,000	430	160	54	< 210 U	< 25 U	62	9,300	< 200 U	150
Field Parameters																					
pH	S.U.	7.02	6.92	7.01	7.18	7.1	6.64	6.50	7.45	6.84	7.24	6.86	6.80	NA	6.85	5.47	7.08	6.72	6.49	7.04	7.16
Specific Conductivity	umhos/cm	1,359	3,124	4,402	4,538	3,724	3,216	3,136	3,700	2,187	2,195	2,132	1,501	NA	2,030	2,230	1,880	2	1,428	1,821	1,615
Dissolved Oxygen	mg/L	0.95	1.45	2.52	6.78	4.36	0.41	0.83	0.20	0.68	0.35	1.41	0.34	NA	0	0	0.29	0.64	0.13	0.20	2.70
Redox Potential	mV	90.5	56.0	-93.7	-200.1	-70.6	-177.8	-148.2	-203	-153.3	-135.3	-93.1	-146.9	NA	-165	-166	-183	-152	27	-166.2	-153.5
Temperature	°C	16.4	18.48	19.24	20.21	18.93	19.04	19.24	18.92	20.44	18.68	16.88	17.97	NA	16.2	15.9	16.33	17.1	16.38	16.65	16.56

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-6. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 3 West, Motors Liquidation Company, Moraine, Ohio.

RZ-3 West		Upgradient Well EAST													
Constituents	**Units**	**9/21/99**	**2/23/00**	**5/25/00**	**9/22/00**	**3/19/01**	**11/12/01**	**12/11/01**	**6/12/02**	**9/23/02**	**5/21/03**	**9/25/03**	**9/13/04**	**10/18/05**	**9/21/06**
Inorganics & TOC															
Nitrate	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	<0.30	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.627	0.474	0.361	0.227	0.182	0.20B	0.21B	0.56B	0.28B	0.12J	0.23J	0.19	1.4	0.92
Manganese (Dissolved)	mg/L	0.098	0.157	0.116	0.136	0.129	0.18B	0.17B	0.20B	0.16B	0.041J	0.096	0.047	0.1	0.12
Iron (Total)	mg/L	4.82	5.55	5.3	2.26	1.17	0.21	0.29	7.9	0.89	0.16	0.64	0.4	5.1	14
Iron (Dissolved)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<1.0	<0.10	< 0.1 U	< 0.10 U	< 0.1 U
Iron (Ferrous)	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	75	130	117	96	101	130	120	170	95	63J	110	54 J	130	71
Sulfide	mg/L	<1	<1	<1	<1	<1.0	1.2	1.6	<1.0	<1.0	<1	2.1	< 1 U	< 1.0 U	< 1 U
Total Organic Carbon	mg/L	3	10	4	<1	<1.0	3B	2	4	2	<1	1	0.5 B	4	2
Chloride	mg/L	283	254	194	196	198	190B	180	270	310	250	310J	290	370	430
Permanent Gases															
Carbon Dioxide	mg/L	34.69	58.08	52.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.88	0.97	1.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	17.88	17.50	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.000571	0.003269	0.01158	1.08	1.1	0.31	0.15	0.0042	0.0027	0.00055	0.0013	0.0012	< 0.0058 U	0.0018
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan															
Ethane	ng/L	32	39	118	126	2,600	2,000	1,800	440	50	13	14	20	< 76 U	28
Ethene	ng/L	18	107	57	73	190	150	56	170	37	34	21	20	< 210 U	43
Field Parameters															
pH	S.U.	6.99	7.04	7.00	7.11	7.34	7.15	7.32	7.02	7.18	6.69	6.94	7.18	6.17	6.88
Specific Conductivity	umhos/cm	1,777	1,955	1,503	1,133	1,189	1,363	1,480	1,439	1,467	1,506	1,548	1,700	2,190	2,120
Dissolved Oxygen	mg/L	0.30	0.37	2.76	1.68	1	1.73	0.05	1.05	1.82	1.79	1.04	0.94	0	0.52
Redox Potential	mV	14.9	122.9	144.5	143.7	468.4	177.1	86	306.5	215.6	201	147.6	195	189	104
Temperature	^{o}C	21.21	19.38	19.32	20.30	19.6	18.68	18.69	19.61	19.62	19.45	18.47	17.4	17.5	18.03

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
^{o}C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-6. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 3 West, Motors Liquidation Company, Moraine, Ohio.

RZ-3 West		Downgradient Well GM-32																	
Constituents	**Units**	**9/22/99**	**2/28/00**	**5/30/00**	**9/25/00**	**3/19/01**	**11/12/01**	**12/11/01**	**6/12/02**	**9/20/02**	**5/23/03**	**10/1/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**11/16/09**	**9/27/10**
Inorganics & TOC																			
Nitrate	mg/L	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	2.29	2.00	19.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.147	0.516	0.051	0.30	0.17	0.16B	0.087B	0.043B	0.053B	0.1J	0.13J	0.13 J	0.076	0.088	0.077 J	0.051	NA	NA
Manganese (Dissolved)	mg/L	0.052	0.061	0.048	0.31	<0.050	0.020B	0.024B	0.042B	0.028B	0.077J	0.11J	0.13 J	0.067	0.078	0.072 J	0.056	NA	NA
Iron (Total)	mg/L	8.14	42.4	18.4	81.0	13	16.5	10.5	7.5	8.4B	21.3	31.4J	33.9	22.0	24.7	20	14	NA	NA
Iron (Dissolved)	mg/L	3.53	0.59	17.1	81.6	3.17	5.2	6.5	8.1	6.8B	18.7	30.5J	34.5	19.8	24.5	19.5	13.6	NA	NA
Iron (Ferrous)	mg/L	1.8	2.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	30	<5	<10	<10	<20	5	4J	1J	<5	<5	<5	< 5 U	< 5 U	< 5 U	< 5 U	24	NA	NA
Sulfide	mg/L	<1	<10	<1	<1	1.6	<1	<1.0	0.50J	1.3	0.86B	7.3	16	4.1	1	14	7.7	NA	NA
Total Organic Carbon	mg/L	68	1200	2020	2720	1120	320B	250	240	160	150	170	240 J	300	260	290 J	95	170	260
Chloride	mg/L	317	638	740	740	798	700B	630	470	510	390	510J	530	550	560	560 J	400	NA	NA
Permanent Gases																			
Carbon Dioxide	mg/L	39.79	8.94	24.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.67	0.85	<0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	14.93	15.23	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	2.73	7.06	14.91	16.84	29	29	38	24	32	24	19	25	30 J	26	26	25	NA	NA
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																			
Ethane	ng/L	1,649	9,965	1,029	189	7,900	42,000	72,000	84,000	94,000	74,000	46,000	57,000	85,000 J	76,000	73,000	58,000	NA	NA
Ethene	ng/L	86,509	163,855	472,312	510,593	150,000	130,000	90,000	93,000	49,000	9,900	3,400	2,000	1,900 J	2,400	1,200	940	NA	NA
Field Parameters																			
pH	S.U.	7.54	8.59	7.64	7.73	8.36	8.42	8.13	8.55	8.13	6.41	6.81	6.86	6.30	6.84	7.00	7.13	7.02	7.68
Specific Conductivity	umhos/cm	2,750	9,030	9,195	9,225	7,483	6,874	6,200	5,432	4,289	3,908	3,192	4,210	4,810	4,510	4,240	3,220	3,540	5,328
Dissolved Oxygen	mg/L	0.09	0.23	10.82	2.55	0.36	0.07	0.03	1.14	0.22	1.93	0.31	0	0	0.21	0.45	1.79	0.89	2.4
Redox Potential	mV	-226.4	-279.1	-213.6	-353.8	-152.5	-222.8	-279	-220.5	-227.1	-204.6	-154.4	-160	-191	-193	-161	-200	-108	-236.9
Temperature	°C	19.27	19.72	23.48	19.27	19.3	18.84	18.62	20.83	19.81	19.31	18.47	17.20	17.00	17.70	16.70	18.71	16.30	16.79

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-6. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 3 West, Motors Liquidation Company, Moraine, Ohio.

RZ-3 West		Downgradient Well GM-8											Downgradient Well GM-6									
Constituents	**Units**	**3/6/98**	**9/20/99**	**9/20/02**	**12/9/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/23/08**	**11/16/09**	**9/27/10**	**3/6/98**	**9/20/99**	**9/20/02**	**12/9/03**	**9/14/04**	**10/19/05**	**9/19/06**	**9/18/07**	**9/24/08**	**9/27/10**
Inorganics & TOC																						
Nitrate	mg/L	<4.4	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.4	0	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	<0.033	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.033	0	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	1.69	1.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.300	<0.30	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.204	0.125	0.085B	0.21	0.13	0.17	0.16	0.12 J	0.027	0.0617	0.14	1.07	1.11	0.27B	0.57	0.43	0.50	0.54	0.4 J	0.14	NA
Manganese (Dissolved)	mg/L	0.229	0.125	0.084B	0.21	0.14	0.15	0.15	0.11 J	0.026	0.0643	0.0604	1	0.958	0.24B	0.53	0.47	0.49	0.54	0.39 J	0.13	NA
Iron (Total)	mg/L	1.01	0.27	0.55B	1.9	1.8	3.2	3.4	3.3	0.69	2.2	4.27	1.32	0.27	0.40B	5.7	3.2	5.4	5.7	6.7	2.9	NA
Iron (Dissolved)	mg/L	1.22	0.26	0.52B	1.9	1.8	2.8	3.1	3	0.64	2.13	2.05	<0.1	<0.10	0.30B	1.9	3.1	4.8	5.6	6.3	2.6	NA
Iron (Ferrous)	mg/L	<0.2	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	59	54	59	<5	13 J	27	24	49	32	23	22	93	83	43	27	26 J	52	55	66	26	NA
Sulfide	mg/L	<1	<1	<1.0	<1.0	2	< 1.0 U	1.8	0.86 J	0.54 J	1.2 J	1.4	<1	<1	<1.0	<1.0	3.4	< 1.0 U	< 1 U	< 1 U	6.5	NA
Total Organic Carbon	mg/L	7	8	16	20	19 J	19	16	16 J	12	15	19	3	4	17	12	16 J	6	7	8 J	14 J	NA
Chloride	mg/L	248	216	180	180J	190	260	320	360 J	250	230	230	227	247	170	190J	230	290	340	400 J	250	NA
Permanent Gases																						
Carbon Dioxide	mg/L	15.8	9.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	47.4	48.44	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.1	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.57	2.23	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	19.7	25.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.5	21.77	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	1.48	2.47	8.5	14	9	8.1 J	7.2	9.1	4.4	7.8	6.7	0.008337	0.006916	7.8	7.8	7.2	4.4 J	3.5	5.3	5.2	NA
Carbon Monoxide	mg/L	<0.4	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.4	<0.40	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																						
Ethane	ng/L	370	1,134	13,000	12,000	18,000	17,000 J	7,200	10,000	22,000	11,000	19,000	47	67	10,000	2,400	5,000	870 J	520	660	13,000	NA
Ethene	ng/L	12,233	39,617	3,700	440	56	< 76 U J	1,200	32	140	< 220 U	33	91	97	4,900	750	2,000	3,600 J	1,700	1,800	680	NA
Field Parameters																						
pH	S.U.	7.7	7.98	8.18	7.2	7.76	6.45	7.31	7.21	8.1	7.86	7.89	7	7.05	7.46	7.76	7.16	6.06	6.8	6.84	7.17	7.27
Specific Conductivity	umhos/cm	1,539	1,584	1,734	1,870	1,900	2,080	2,120	2,300	2,060	1,920	2,083	1,422	1,493	1,658	2,080	1,830	1,880	1,920	2,130	2,160	1,900
Dissolved Oxygen	mg/L	0.16	0.28	0.37	0.04	0	0	0.53	0.70	0	0	3.00	0.88	0.48	0.34	0.03	0	0	0.24	0.51	1.43	3.30
Redox Potential	mV	-145	-49.8	-150.6	-137	-186	-162	-160	-125	-262	-24	-167.7	57.6	26.5	-27.7	-223	-111	-107	-111	-86	-159	-136.4
Temperature	°C	17.53	19.09	19.2	18.17	16.60	16.30	18.10	17.00	17.60	16.00	16.51	18.49	21.07	19.07	17.71	16.8	16.8	17.3	17.5	16.51	16.10

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-7. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 3 East, Motors Liquidation Company, Moraine, Ohio.

RZ-3 East		Upgradient Well GM-22															
Constituents	**Units**	**9/1/99**	**2/23/00**	**5/25/00**	**9/21/00**	**3/20/01**	**11/13/01**	**12/12/01**	**6/13/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/14/04**	**10/17/05**	**9/20/06**	**9/26/07**	**10/3/08**
Inorganics & TOC																	
Nitrate	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	<0.30	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.089	0.273	0.355	0.422	0.458	0.74B	0.63	0.38B	0.029B	0.031J	0.027J	0.1 J	0.04	0.26	0.071 J	0.033
Manganese (Dissolved)	mg/L	0.096	0.263	0.328	0.403	0.413	0.73B	0.62	0.40B	0.093B	0.023J	0.020J	0.035 J	0.026	0.18	0.015 J	< 0.015 U
Iron (Total)	mg/L	<0.10	0.16	0.96	0.94	0.28	<0.10	<0.10	0.11B	0.18	0.22	0.23	1.6	0.19	2.1	1	0.68
Iron (Dissolved)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.10	< 0.1 U	< 0.10 U	< 0.1 U	< 0.1 U	< 0.1 U
Iron (Ferrous)	mg/L	0.6	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	49	125	120	117	99	300	150	120	70	72J	77	49 J	52	48	66	42
Sulfide	mg/L	<1	<1	<1	<1	<1.0	<1	<1.0	<1.0	0.40J	0.54B	1.6	< 1 U	< 1.0 U	< 1 U	< 1U	1.5
Total Organic Carbon	mg/L	6	4	4	<1	<1.0	16B	6B	3	2	<1	1	1 J	2	2	< 2 U	1
Chloride	mg/L	246	270	279	248	326	220B	280	290	370	350	350J	370	330	420	390 J	240
Permanent Gases																	
Carbon Dioxide	mg/L	40.15	43.99	40.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.05	0.86	1.28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	23.38	19.43	21.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.05818	0.23	0.18	0.000967	0.28	0.067	0.16	0.039	0.014	0.00039	1.2	0.02	< 0.012 U	< 0.0047 U	0.0016	0.0043
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																	
Ethane	ng/L	42	91	69	29	83	130	120	140	270	13	8.4	340	< 810 U	< 83 U	22 J	13 J
Ethene	ng/L	67	32	64	111	39	210	12	54	62	27	11	12	< 810 U	< 59 U	11 J	< 25 U
Field Parameters																	
pH	S.U.	7.12	7.15	7.08	7.17	7.00	7.33	7.39	7.21	7.02	6.89	7.04	7.10	6.88	6.97	6.78	6.76
Specific Conductivity	umhos/cm	1,373	1,975	1,671	1,684	1,610	1,753	2,020	1,415	1,720	1,730	1,597	1,760	1,930	2,080	2,170	1,280
Dissolved Oxygen	mg/L	0.32	0.46	0.49	1.73	0.82	0.01	0.15	0.94	2.14	1.04	1.2	0	0	0.27	1.18	3.15
Redox Potential	mV	62.2	70.2	26.1	-80.8	175.1	54.8	-110	105.2	181.2	116.6	74.6	62	68	51	79	174
Temperature	°C	19.41	18.87	20.87	22.28	20.79	19.45	18.99	20.29	19.49	18.62	18.45	17.2	16.9	17.46	18.1	16.79

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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Table D-7. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 3 East, Motors Liquidation Company, Moraine, Ohio.

RZ-3 East		Downgradient Well GM-21																	
Constituents	**Units**	**9/22/99**	**2/23/00**	**5/26/00**	**9/22/00**	**3/19/01**	**11/13/01**	**12/11/01**	**6/12/02**	**9/25/02**	**5/22/03**	**9/24/03**	**9/14/04**	**10/17/05**	**9/20/06**	**9/26/07**	**10/3/08**	**11/16/09**	**9/28/10**
Inorganics & TOC																			
Nitrate	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	<0.3	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.321	0.233	0.215	0.336	0.298	0.30B	0.30B	0.31B	0.29B	0.32J	0.37J	0.35 J	0.17	0.19	0.27 J	0.78	0.882	0.758
Manganese (Dissolved)	mg/L	0.273	0.225	0.212	0.312	0.291	0.32B	0.29B	0.29B	0.25B	0.26J	0.38J	0.33 J	0.16	0.19	0.27 J	0.77	0.893	0.768
Iron (Total)	mg/L	2.58	0.30	0.83	0.63	0.11	<0.10	0.16	0.65	0.56	12.6	0.27	2.3	26.9	10.7	9.2	17.9	19.6	26.1
Iron (Dissolved)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	<0.10	1.4	0.47	< 0.1 U	25.5	10.7	8.9	16.7	20.2	25.6
Iron (Ferrous)	mg/L	0.4	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	103	102	80	102	118	120	100	76	76	55J	82	79 J	< 5 U	35	17	38	19	13
Sulfide	mg/L	<1	<1	<1	<1	<1	<1	1.9	0.50J	0.40J	0.54B	1.5	2.9	< 1.0 U	< 1 U	< 1 U	1.5	4.0 J	< 1.0
Total Organic Carbon	mg/L	1	3	2	<1	<1	2B	1	0.9J	2	2	2	2 J	92	7	14 J	18	45	91
Chloride	mg/L	136	145	126	129	165	140	150	170	180	160	190J	190	190	240	260 J	240	220	230
Permanent Gases																			
Carbon Dioxide	mg/L	37.04	37.40	18.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.41	0.99	1.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	23.40	21.67	23.64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.03744	0.01769	0.01370	0.04218	0.048	0.049	0.035	0.022	0.03	0.031	1.5	0.077	17	4.9	30	28	28	23
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																			
Ethane	ng/L	72	67	84	72	82	76	120	150	120	130	30	140	9,800	27,000	290,000 J	77,000	71,000	50,000
Ethene	ng/L	169	38	70	69	46	46	100	120	64	570	520	250	330,000	63,000	80,000	13,000	6,700	3,600
Field Parameters																			
pH	S.U.	6.99	7.22	7.06	7.21	7.85	7.50	7.45	7.22	7.09	6.76	7.05	7.19	6.73	6.90	6.64	6.05	6.40	6.46
Specific Conductivity	umhos/cm	1,188	1,299	1,048	1,096	1,067	1,190	1,360	1,045	1,245	968	1,181	1,180	1,640	1,580	1,870	1,405	2,088	2,424
Dissolved Oxygen	mg/L	0.66	0.60	0.40	0.99	0.57	0.04	0.04	0.63	0.41	0.83	0.75	0	0	0.25	0.46	0.12	0.24	3.60
Redox Potential	mV	-26.9	113.3	167.1	153.9	218.5	168.8	-25	373.8	238.1	77.1	-26.7	-7	-140	-137	-126	68	-92.1	-95.1
Temperature	°C	20.43	18.43	17.92	19.03	17.59	16.73	15.82	18.67	18.67	17.54	18.39	17.1	16.4	16.94	17.2	16.5	16.32	16.65

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

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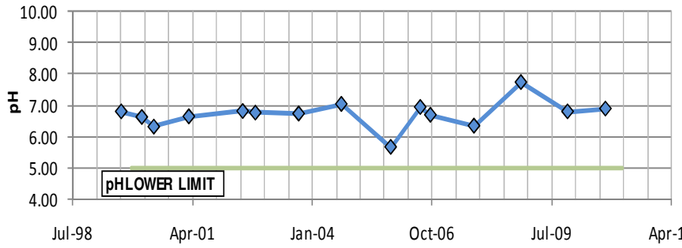
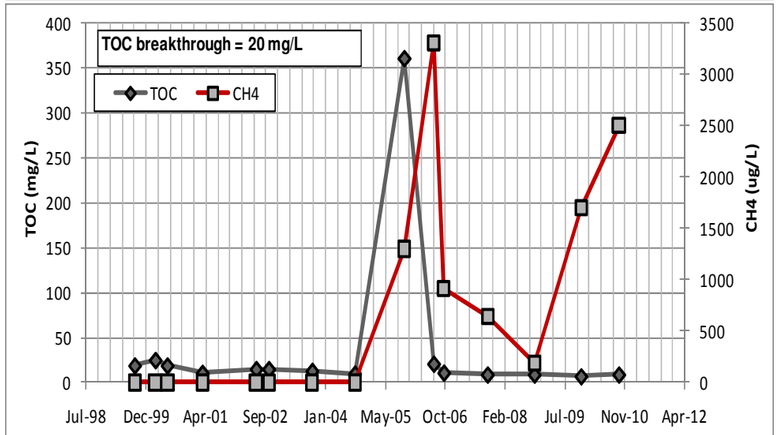
Table D-8. Bioattenuation Parameter Results for Groundwater Samples Collected in Reactive Zone 4 East, Motors Liquidation Company, Moraine, Ohio.

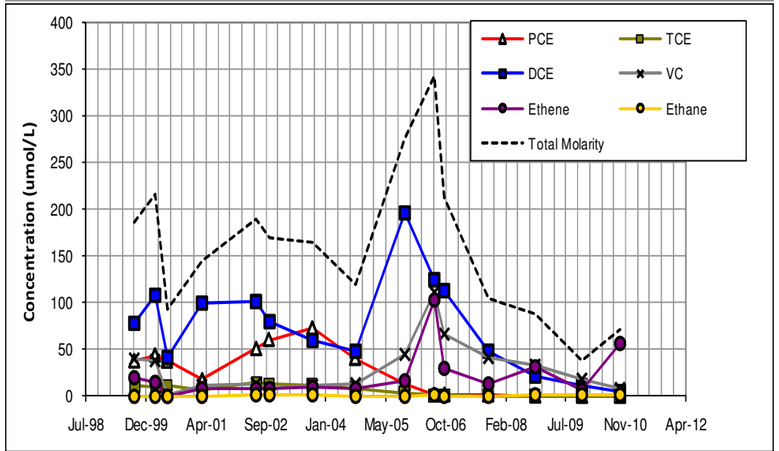
RZ-4 East		Upgradient Well WEST			Upgradient Well GM-19S																	
Constituents	**Units**	**9/21/99**	**2/23/00**	**5/25/00**	**9/20/99**	**2/23/00**	**5/24/00**	**9/22/00**	**3/19/01**	**11/20/01**	**12/11/01**	**6/12/02**	**9/26/02**	**5/21/03**	**9/25/03**	**9/13/04**	**10/18/05**	**9/21/06**	**9/17/07**	**9/23/08**	**11/17/09**	**4/7/10**	**9/27/10**
Inorganics & TOC																						
Nitrate	mg/L	0	0	0	11	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite	mg/L	17.6	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen, Ammonia	mg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese (Total)	mg/L	0.391	0.038	0.029	0.726	1.09	0.247	0.238	0.191	0.2	0.21B	0.25B	0.39B	0.3J	0.23J	0.25	0.24	0.99	0.28 J	0.16	0.0911	NA	0.169
Manganese (Dissolved)	mg/L	0.383	<0.010	<0.010	0.185	0.205	0.200	0.187	0.155	0.19	0.18B	0.18B	0.19B	0.2J	0.21J	0.16	0.2	0.94	0.15 J	0.16	0.0900	NA	0.170
Iron (Total)	mg/L	0.27	0.40	0.37	16.9	39.4	1.19	0.40	0.9	0.091	0.18	0.26	0.44	0.17	0.96	3	0.38	1.6	12.7	7.4	15.2	NA	18.9
Iron (Dissolved)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.10	< 0.1 U	< 0.10 U	1.4	9.4	7.3	15.1	NA	18.3
Iron (Ferrous)	mg/L	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	73	129	155	127	131	131	118	113	100	90	110	110	150J	150	110 J	83	95	63	68	25	NA	21
Sulfide	mg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.96J	<1.0	<1.0	<1	1.3	1.6	< 1.0 U	< 1 U	< 1 U	< 1 U	1.0 J	NA	0.80 J
Total Organic Carbon	mg/L	2	7	3	2	7	5	<1	<1	2B	1	1	3	2	2	1	3	22	6 J	3	10	NA	14
Chloride	mg/L	260	166	164	247	197	168	165	158	130B	150	140	210	270	300J	310	320	350	400 J	390	460	NA	390
Permanent Gases																						
Carbon Dioxide	mg/L	50.41	67.57	61.09	41.85	57.12	50.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxygen	mg/L	1.30	1.50	2.20	4.43	1.01	1.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	13.24	13.74	17.1	20.87	17.07	17.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methane	mg/L	0.001409	0.000217	0.002179	0.009863	0.002712	0.003325	0.003706	0.039	0.005	0.0088	0.002	0.46	0.0021	0.0022	0.0014	< 0.0065 U	0.025	7.5	0.79	25	NA	19
Carbon Monoxide	mg/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Light Hydrocarbon Scan																						
Ethane	ng/L	37	33	57	71	104	139	184	210	300	350	410	730	170	80	48	< 250 U	730	7,800	550	11,000	NA	9,300
Ethene	ng/L	100	17	47	55	45	43	36	61	34	27	130	770	78	45	51	< 220 U	550	22,000	30,000	< 120 U	NA	72
Field Parameters																						
pH	S.U.	6.89	6.97	6.97	7.05	7.05	7.00	7.19	7.14	7.28	7.31	7.09	7.02	6.71	6.93	7.13	5.97	6.84	7.03	7.1	6.93	6.78	7.47
Specific Conductivity	umhos/cm	1,759	1,640	1,547	1,500	1,784	1,548	1,235	1,097	1,190	1,350	1,052	1,474	1,706	1,726	1,970	1,940	2,150	2,010	2,290	1,951	2,370	1,986
Dissolved Oxygen	mg/L	0.41	1.73	1.50	0.92	0.30	1.94	1.36	0.96	1.75	0.06	0.9	0.47	2.01	1.87	0	0	0.3	0.43	1.87	0.33	0.80	0.67
Redox Potential	mV	106.2	139.1	198.3	31.3	149.6	200.1	187.7	320.8	195.6	13	446.3	259.6	178.3	135	160	122	-82	-145	-153	-137.9	-157	-112.5
Temperature	°C	21.44	19.90	19.75	20.85	18.69	20.80	20.09	20.14	19.24	19.1	20.39	20.36	20.22	19.57	18.6	17.6	17.9	17.5	16.9	16.68	17.73	16.43

mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
S.U. - Standard Units.
umhos/cm - Micromohs per Centimeter.
mV - Millivolts.
°C - Degrees Celsius.
J - Value is estimated.
B - Blank Contamination.
NA - Not Analyzed.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions.
Carbon source introductions began in December 1999.

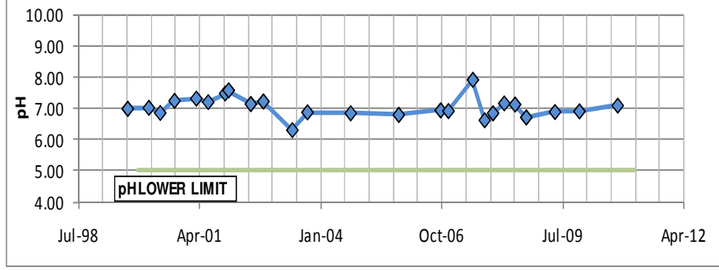
GM-23 ERD Analysis

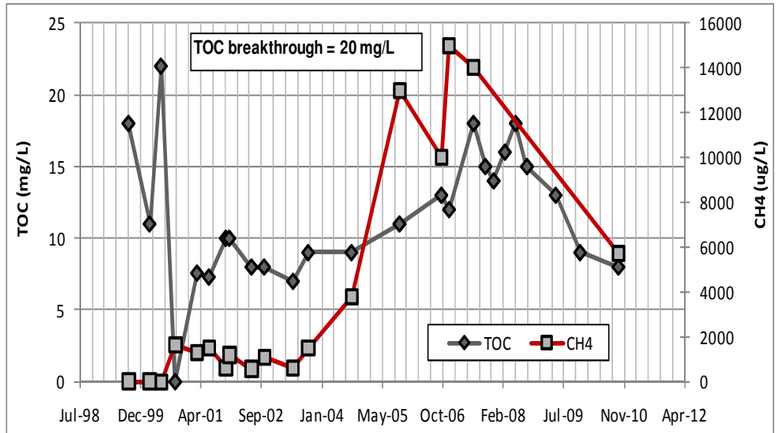


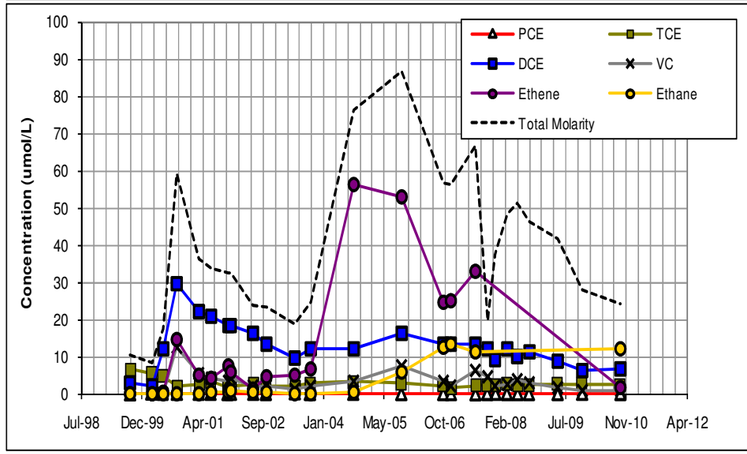




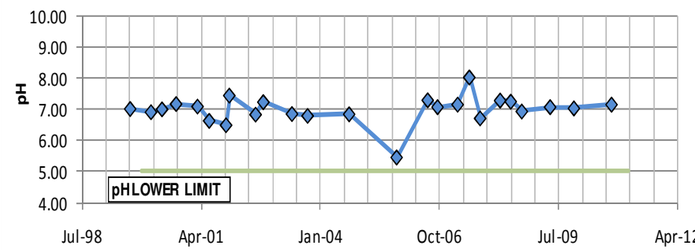
GM-29 ERD Analysis

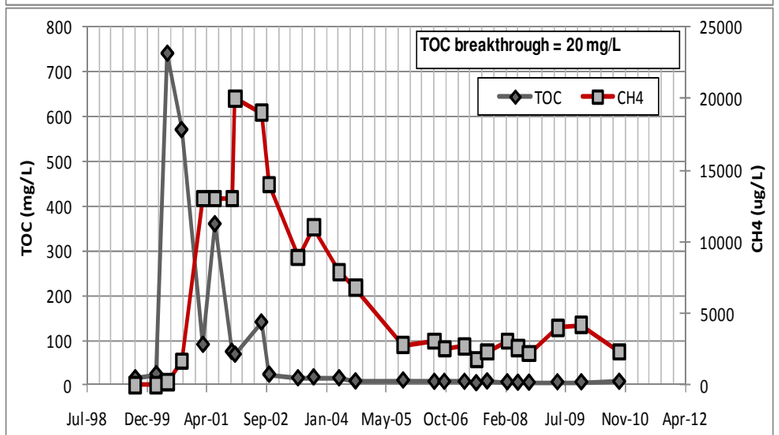


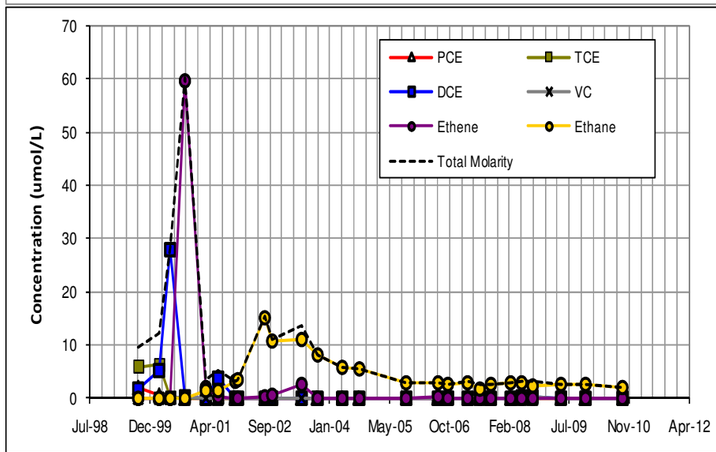




GM-28 ERD Analysis







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RZ-1 ERD Analysis (GM-23, GM-29, GM-28)

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FIGURE
D-1

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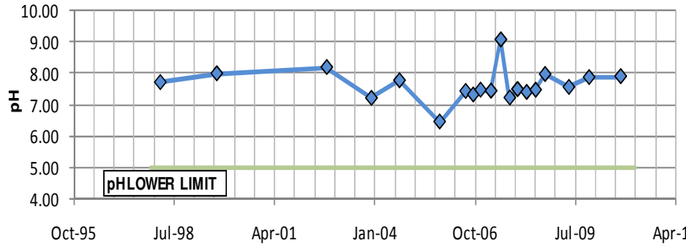
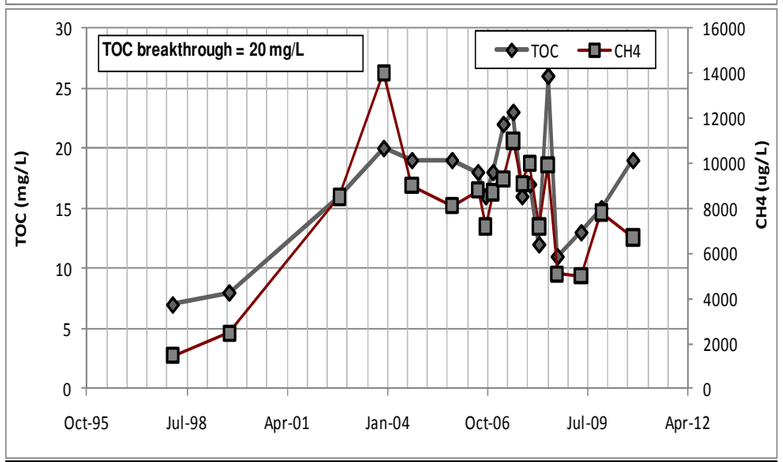
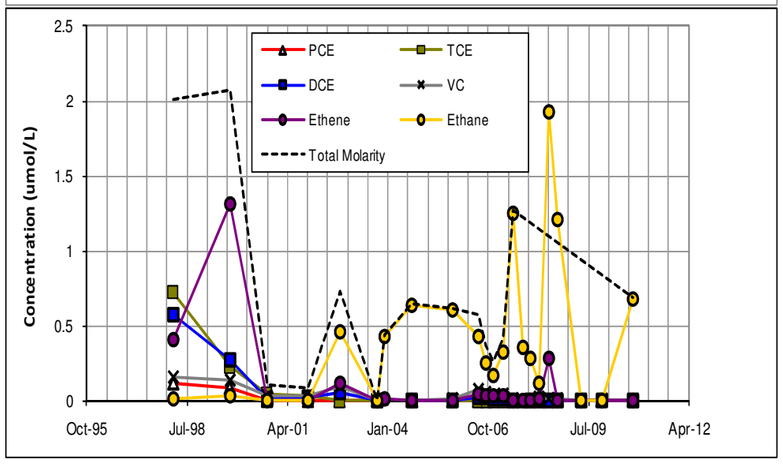
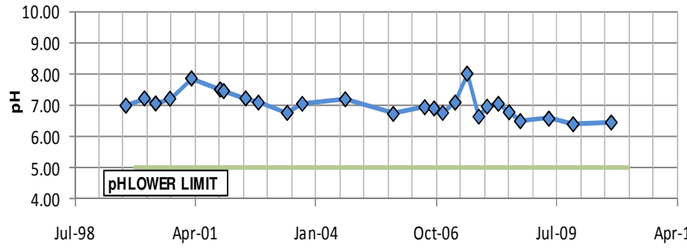
GM-8 ERD Analysis

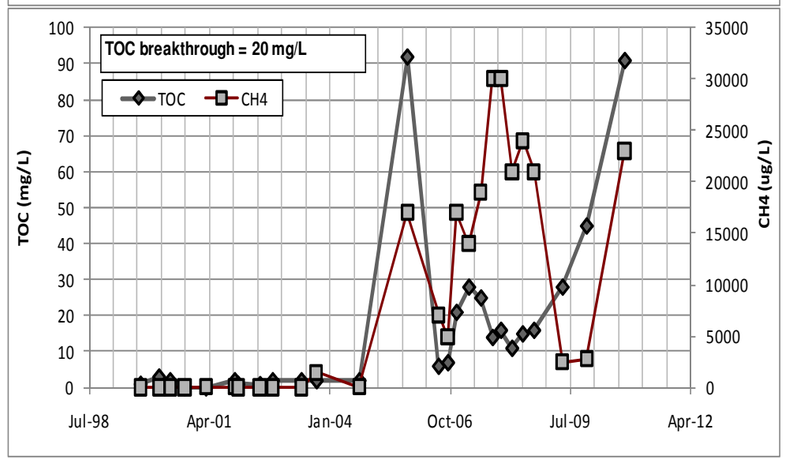


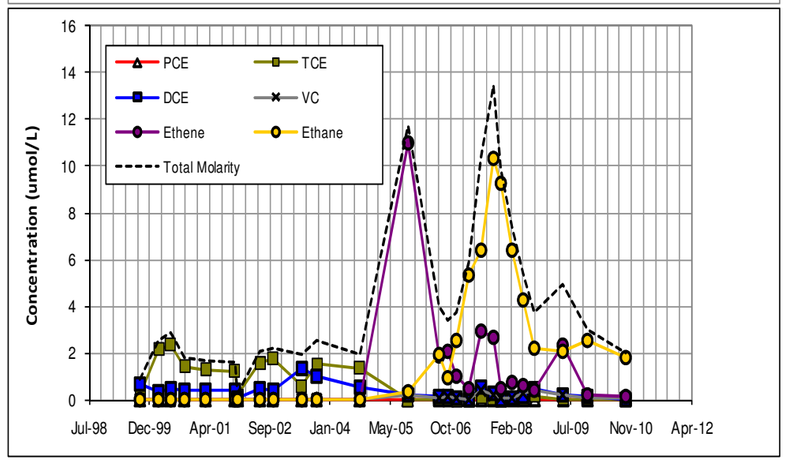




GM-21 ERD Analysis







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RZ-3 West/East ERD Analysis
GM-8(West), GM-21(East)

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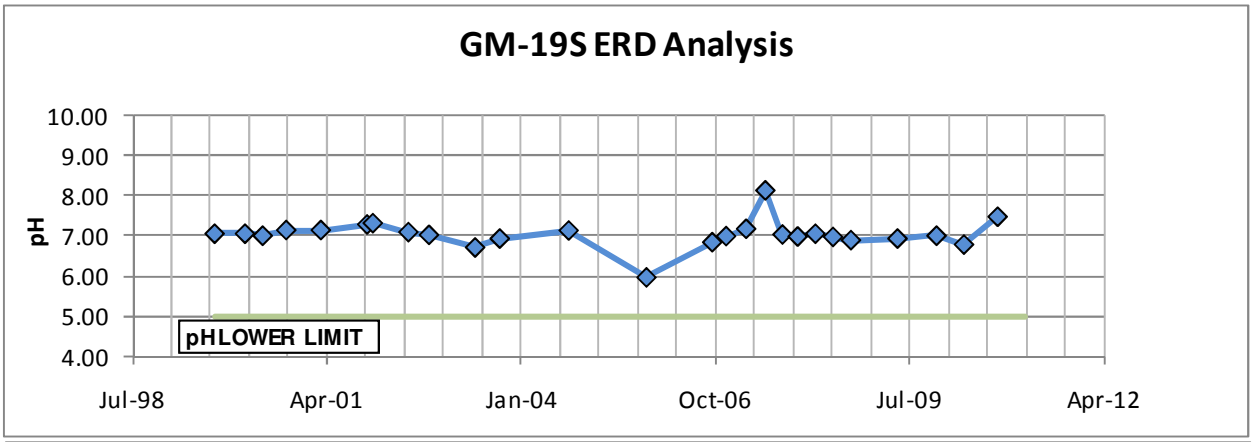
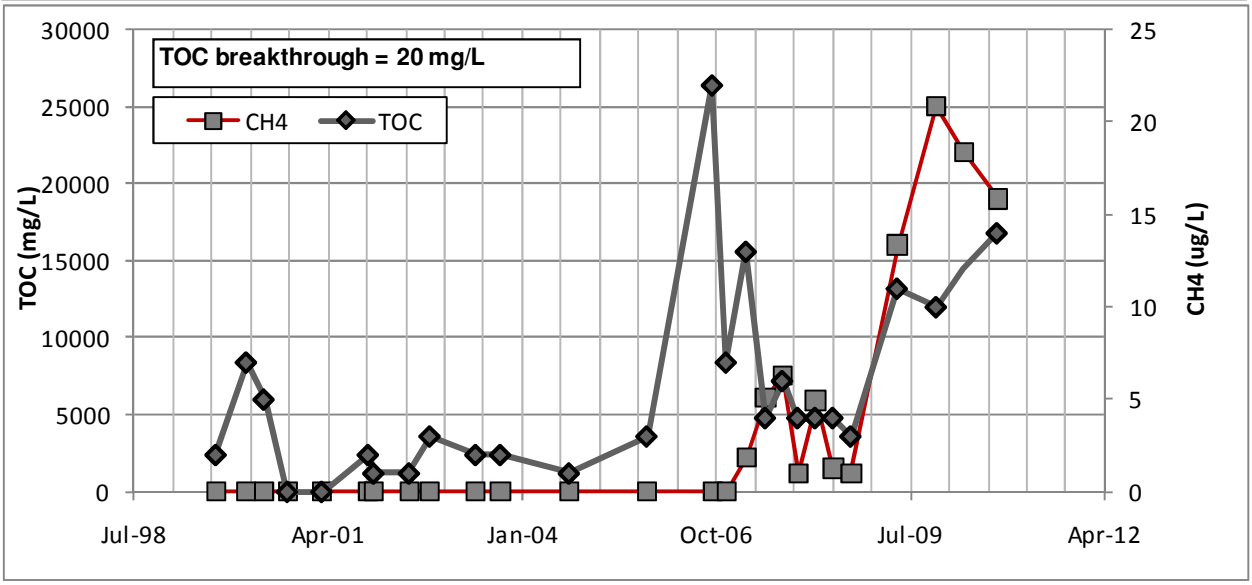
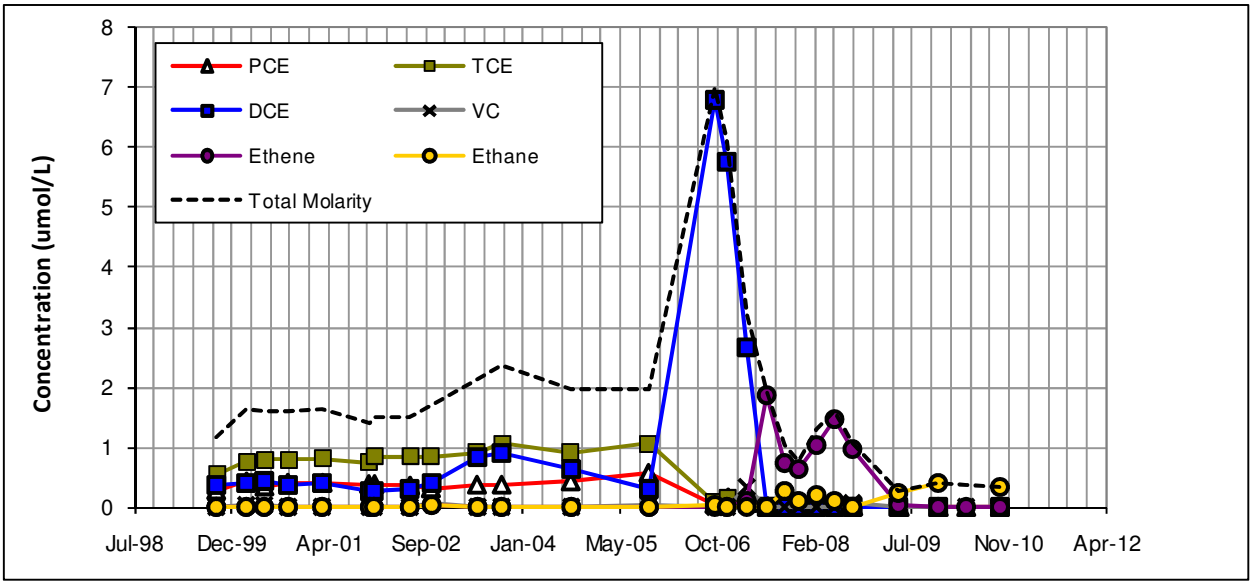
FIGURE
D-2

PROJECT FILE: G:/PUBLIC/MOTORS/04- OMM Lagoon_Landfills_GWM/Annual Report/2010/Appendices/Appendix D







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RZ-4 ERD Analysis (GM-19S)

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FIGURE
D-3

PROJECT FILE LOCATION - G:/PUBLIC/MOTORS/04- OMM Lagoon Landfills GWM/Annual Report/2010/Appendices/Appendix D

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Appendix E

Supporting Documentation for Corrective Action Completion Evaluation for 2010

Table E-1: Source Reduction Factors
Motors Liquidation Company, Moraine, Ohio

Potential Receptors Points	Well ID	Model Location (row, column, layer)	Pumping Rates	Potential Source Areas				
				Landfill 1	Landfill 2	Landfill 3	North Settling Lagoon	South Settling Lagoon
Shallow Treatment Well	TW-2	(215,144,1)	0	1.00E+00	1.47E-03	2.36E-05	4.50E-06	0.00E+00
Dryden North Well	DN-13	(225,117,3-4)	0	1.80E-01	8.24E-02	7.35E-03	8.23E-03	1.80E-02
Dryden South Well	DS-7	(249,118,3)	0	6.73E-01	4.04E-03	1.71E-04	1.29E-04	7.56E-05
Miami Shores Well Field	MS-14	(252,75,3-5)	0	2.02E-01	1.39E-01	3.94E-02	5.77E-02	1.87E-01
	MS-15	(245,79,3-5)						
	MS-16	(246,70,3-5)	0	6.02E-02	1.51E-01	7.61E-02	1.19E-01	3.05E-01
	MS-17	(250,66,3-5)						
	MS-18	(254,62,3-5)	0	1.79E-01	1.17E-01	5.70E-02	8.83E-02	2.15E-01
	MS-19	(255,70,3-5)						
	MS-20	(257,63,3-5)						
	MS-21	(256,54,3-5)	0	1.89E-02	1.02E-01	8.42E-02	1.34E-01	3.15E-01
	MS-22	(257,49,3-5)	0	4.41E-03	6.22E-02	7.08E-02	1.15E-01	2.63E-01
Moraine Assembly Production Wells	11B	(116,224,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	12A	(108,226,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Moraine Engine Well 28	28	(58,80,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Moraine Engine Plant	31	(86,210,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	39	(40,81,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Harrison Production Wells	44	(29,70,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	42	(54,59,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	45	(74,56,3)	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
West Carrollton Well Field	WC-1	(282,27,3-5)	259	8.44E-06	2.65E-03	7.60E-03	1.14E-02	5.51E-03
	WC-3	(280,31,3-5)	259	1.51E-04	1.00E-02	2.19E-02	3.44E-02	4.00E-02
	WC-4	(281,29,3-5)	259	5.12E-05	6.01E-03	1.45E-02	1.03E-02	1.90E-02
Miami River	--	--	--	6.76E-07	2.74E-04	1.02E-03	1.47E-03	4.25E-04

Notes:

1. Source reduction factors reflect updated groundwater model results generated using current site pumping conditions without interim measures pumping (Pumping Scenario 1a, ARCADIS Inc., 2008)
2. Shadded cells indicate those potential receptor wells which are not pumping in pumping Scenario 1a (i.e., current conditions without interim measures pumping).
3. Dilution factors reported for the Miami River are mass loading factors to the river [$^{lb/day}/_{mg/L}$]

TABLE E-2: Preliminary Remediation Target Levels (Updated February 2010)
Motors Liquidation Company - Moraine Ohio

Remediation Target Levels (mg/L) - Upper Aquifer

			Constituent of Concern					
Point of Compliance	***GM-26***		***PCE***	***TCE***	***1,1-DCE***	***cis-1,2-DCE***	***Vinyl Chloride***	**monitoring wells**
Allowable POC Concentration (mg/L):			***0.005***	***0.005***	***0.007***	***0.070***	***0.002***	
Estimated Remediation Target Level at AOI 7 (mg/L):			***0.500***	***0.500***	***0.700***	***7.000***	***0.200***	GM-23, GM-29 and *GM-30*
Distance from AOI 7 (monitoring zone)	**Source Reduction Factor[1]**	**Normalized Remediation Target**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	
140 ft (Zone S1)	0.90	90	0.450	0.450	0.630	6.300	0.180	GM-28
1190 ft (Zone S1 to Zone S2)	0.19	19	0.095	0.095	0.133	1.330	0.038	GM-28, *ME-6*
2240 ft (Zone S2)	0.10	10	0.050	0.050	0.070	0.700	0.020	*ME-6* , *ME-3*, *GM-31*
2940 ft (Zone S2 to Zone S3)	0.09	9	0.045	0.045	0.063	0.630	0.018	*ME-6* , *ME-3* , *GM-31* , *GM-22* , *GM-33* , GM-35, W-4-S, (GM-19S), and (EAST)
3640 ft (Zone S3)	0.07	7	0.035	0.035	0.049	0.490	0.014	GM-32, GM-21, (W-4-S), *GM-63* , and *GM-64*
4430 ft (Zone S3 to GM-10)	0.05	5	0.025	0.025	0.035	0.350	0.010	GM-47, GM-50, *GM-51* , *GM-63* , *GM-64* , GM-32, GM-21, GM-8, GM-6, (4S), GM-2, GM-16, (GM-17), *GM-18* , *WSU-24* , (W-4-S), and (GM-10)
5215 ft (GM-10/GM-52)	0.04	4	0.020	0.020	0.028	0.280	0.008	*GM-10* and GM-52
6370 ft (POC)	0.01	1	0.005	0.005	0.007	0.070	0.002	GM-26

Remediation Target Level (mg/L) - Lower Aquifer

			Constituent of Concern					
Point of Compliance	***GM-11, GM-15 and GM-20D***		***PCE***	***TCE***	***1,1-DCE***	***cis-1,2-DCE***	***Vinyl Chloride***	**monitoring wells**
Allowable POC Concentration (mg/L):			***0.005***	***0.005***	***0.007***	***0.070***	***0.002***	
Estimated Remediation Target Level at AOI 7 (mg/L):			***0.167***	***0.167***	***0.233***	***2.333***	***0.067***	GM-23, GM-29 and *GM-30*
Distance from AOI 7 (monitoring zone)	**Source Reduction Factor[1]**	**Normalized Remediation Target**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	**Remediation Target (mg/L)**	
2000 ft (GM-40/41/54)	0.26	8.7	0.043	0.043	0.061	0.607	0.017	*GM-40* , *GM-41* , and GM-54
2900 ft (Well GM-42)	0.14	4.7	0.023	0.023	0.033	0.327	0.009	*GM-42* (replaces Well 32)
3600 ft (Well GM-19D)	0.09	3.0	0.015	0.015	0.021	0.210	0.006	GM-19D
4250 ft (Zone D2)	0.055	1.8	0.009	0.009	0.013	0.128	0.004	*GM-1* and *GM-3*
4900 ft (POC)	0.03	1.0	0.005	0.005	0.007	0.070	0.002	GM-11, GM-15 and GM-20D

Notes

1. Source Reduction Factors reflect updated groundwater model results generated using current site conditions without interim measures pumping (ARCADIS Inc., 2008).
2. Monitoring wells in parenthesis are those that were previously removed from the list of wells considered applicable to the particular remediation zone.
3. Monitoring wells in *italics* are those with a revised monitoring frequency of once every five years (ARCADIS Inc., 2009).

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Table E-3. Mann Kendall Trend Test Results, North and South Settling Lagoon Groundwater Monitoring, Motors Liquidation Company, Moraine Ohio.

Unit	Upgradient/ Downgradient	Well	Chemical	n	Detection Frequency	S	p-value	Trend Test Conclusion (at 0.05 level of significance)
North Settling Lagoon	Upgradient	HR-04	1,1,1-Trichloroethane	10	10%	9	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-2-N	1,1,1-Trichloroethane	10	30%	8	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	1,1,1-Trichloroethane	10	0%	-30	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	1,1,1-Trichloroethane	10	80%	10	> 0.025	No Trend
North Settling Lagoon	Upgradient	HR-04	1,1-Dichloroethane	10	70%	38	< 0.025	**Increasing Trend**
North Settling Lagoon	Downgradient	W-2-N	1,1-Dichloroethane	10	60%	5	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	1,1-Dichloroethane	10	0%	-30	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	1,1-Dichloroethane	10	100%	23	> 0.025	No Trend
North Settling Lagoon	Upgradient	HR-04	cis-1,2-Dichloroethene	10	30%	12	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-2-N	cis-1,2-Dichloroethene	10	100%	10	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	cis-1,2-Dichloroethene	10	100%	-29	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	cis-1,2-Dichloroethene	10	100%	25	< 0.025	**Increasing Trend**
North Settling Lagoon	Upgradient	HR-04	Tetrachloroethene	10	100%	-27	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-2-N	Tetrachloroethene	10	10%	3	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	Tetrachloroethene	10	40%	-24	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	Tetrachloroethene	10	100%	-21	> 0.025	No Trend
North Settling Lagoon	Upgradient	HR-04	Toluene	10	0%	0	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-2-N	Toluene	10	10%	-3	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	Toluene	10	0%	-30	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	Toluene	10	0%	0	> 0.025	No Trend
North Settling Lagoon	Upgradient	HR-04	trans-1,2-Dichloroethene	10	0%	24	< 0.025	Increasing Trend
North Settling Lagoon	Downgradient	W-2-N	trans-1,2-Dichloroethene	10	20%	16	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	trans-1,2-Dichloroethene	10	90%	-30	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	trans-1,2-Dichloroethene	10	70%	16	> 0.025	No Trend
North Settling Lagoon	Upgradient	HR-04	Trichloroethene	10	90%	-32	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-2-N	Trichloroethene	10	80%	-25	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-3-N	Trichloroethene	10	20%	-25	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	Trichloroethene	10	100%	21	> 0.025	No Trend
North Settling Lagoon	Upgradient	HR-04	Vinyl Chloride	10	0%	0	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-2-N	Vinyl Chloride	10	0%	0	> 0.025	No Trend
North Settling Lagoon	Downgradient	W-3-N	Vinyl Chloride	10	100%	-25	> 0.025	Decreasing Trend
North Settling Lagoon	Downgradient	W-4-N	Vinyl Chloride	10	80%	-6	> 0.025	No Trend

Increasing trends that are statistically significant in downgradient monitoring wells are shown in bold font.
An increasing trend is shaded if the detection frequency is 40% or greater, or if the three most recent sampling results were over the analytical detection limit.

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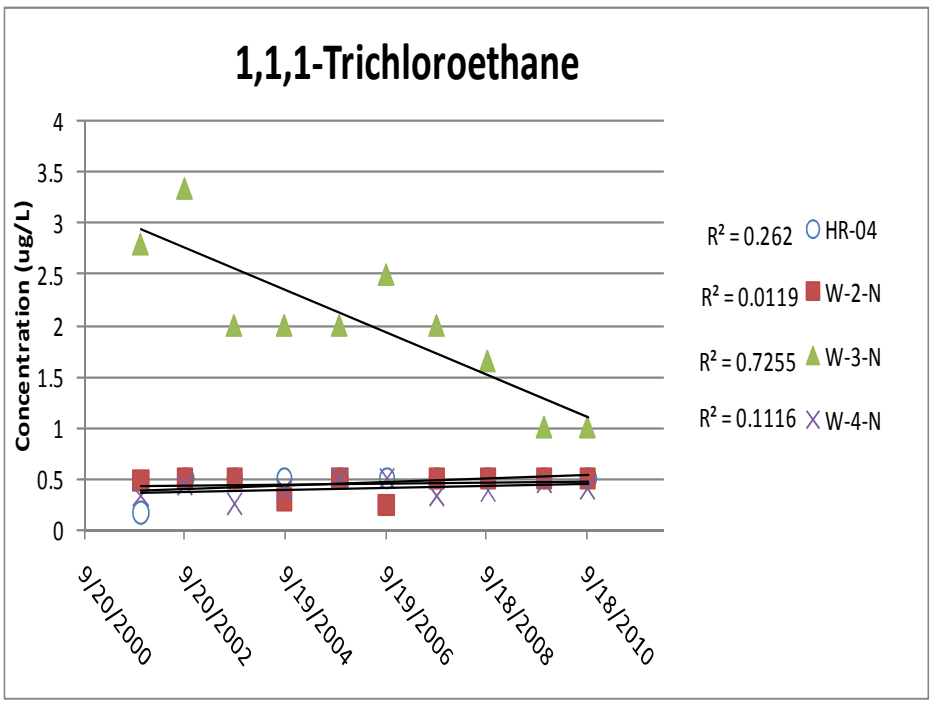
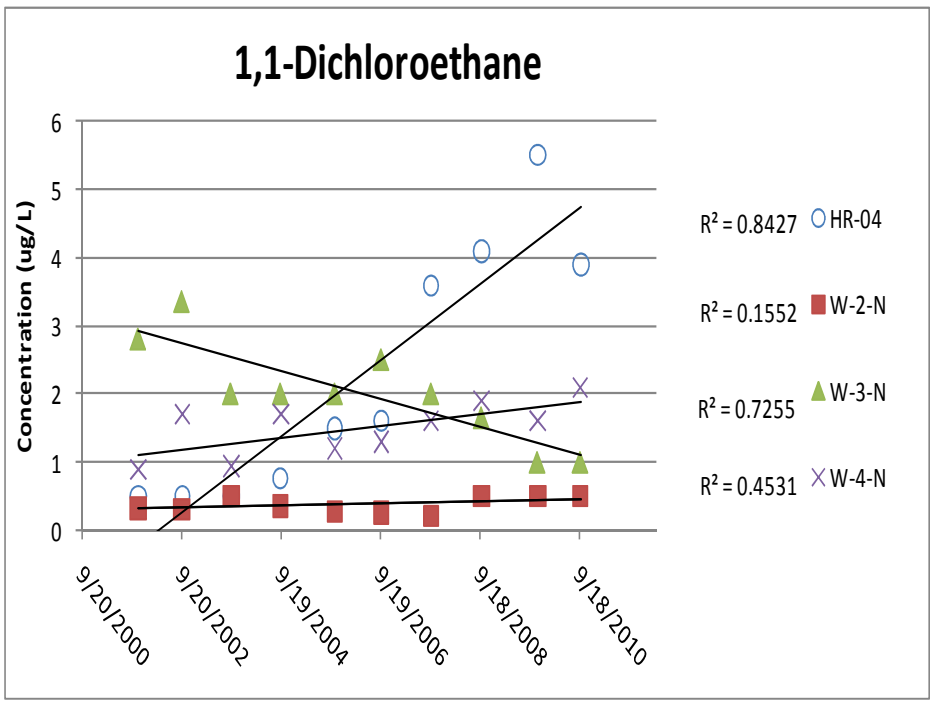
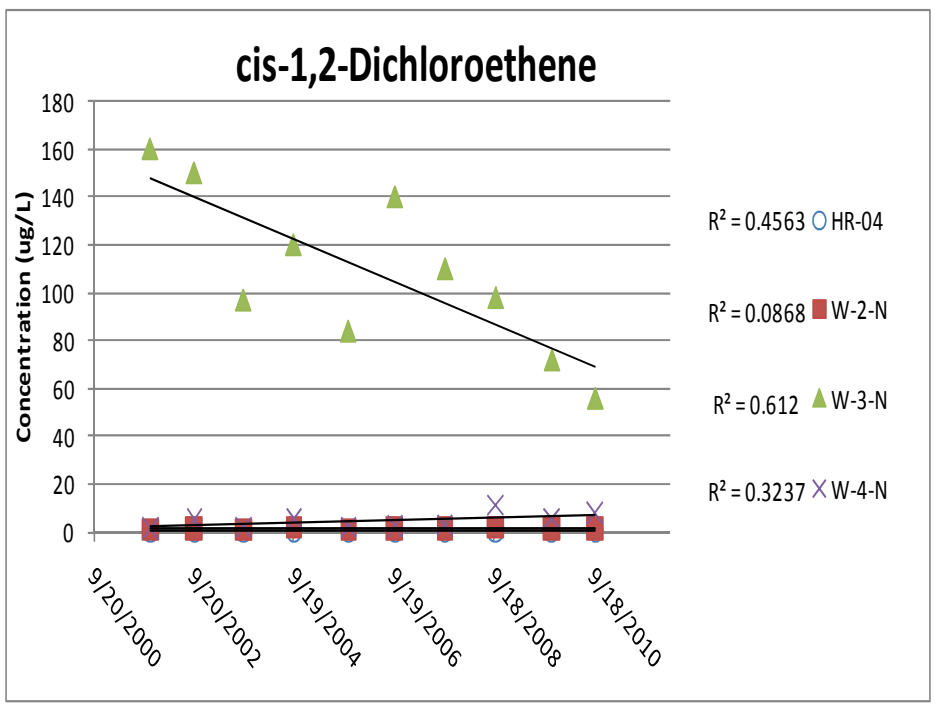
Table E-3. Mann Kendall Trend Test Results, North and South Settling Lagoon Groundwater Monitoring, Motors Liquidation Company, Moraine Ohio.

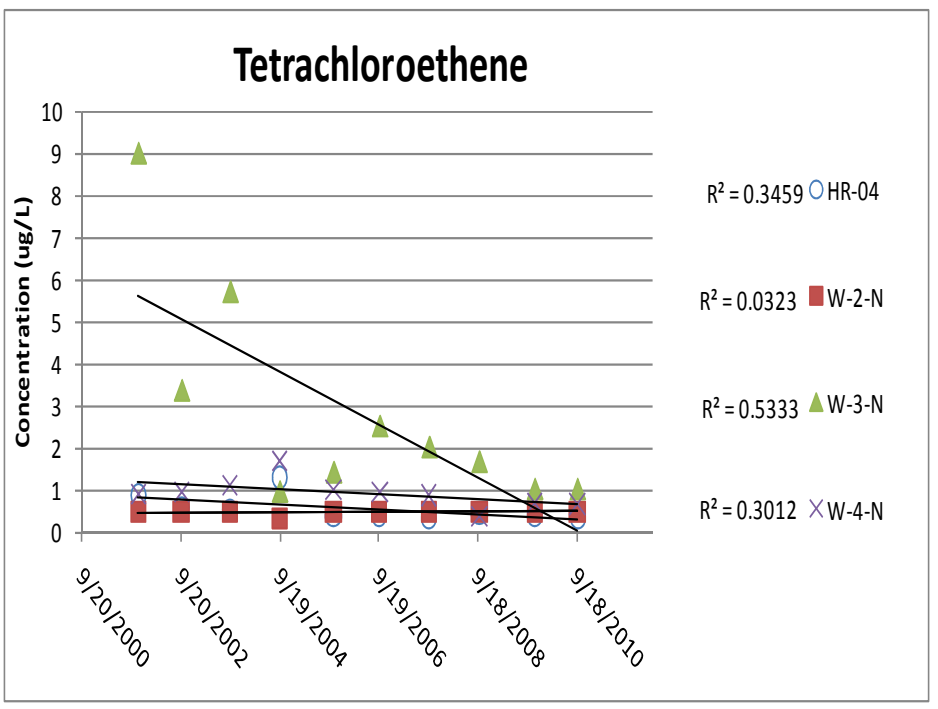
Unit	Upgradient/ Downgradient	Well	Chemical	n	Detection Frequency	S	p-value	Trend Test Conclusion (at 0.05 level of significance)
South Settling Lagoon	Upgradient	HR-17	1,1,1-Trichloroethane	10	20%	0	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	1,1,1-Trichloroethane	10	100%	-7	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	1,1,1-Trichloroethane	10	100%	-17	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	1,1,1-Trichloroethane	14	71%	-67	> 0.025	Decreasing Trend
South Settling Lagoon	Upgradient	HR-17	1,1-Dichloroethane	10	90%	15	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	1,1-Dichloroethane	10	100%	9	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	1,1-Dichloroethane	10	20%	-2	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	1,1-Dichloroethane	14	71%	49	< 0.025	**Increasing Trend**
South Settling Lagoon	Upgradient	HR-17	cis-1,2-Dichloroethene	10	90%	-7	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	cis-1,2-Dichloroethene	10	100%	9	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	cis-1,2-Dichloroethene	10	30%	22	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	cis-1,2-Dichloroethene	14	100%	72	< 0.025	**Increasing Trend**
South Settling Lagoon	Upgradient	HR-17	Tetrachloroethene	10	100%	21	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	Tetrachloroethene	10	40%	-18	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	Tetrachloroethene	10	100%	17	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	Tetrachloroethene	14	100%	62	< 0.025	**Increasing Trend**
South Settling Lagoon	Upgradient	HR-17	Toluene	10	0%	11	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	Toluene	10	10%	5	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	Toluene	10	0%	0	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	Toluene	14	7%	9	> 0.025	No Trend
South Settling Lagoon	Upgradient	HR-17	trans-1,2-Dichloroethene	10	90%	9	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	trans-1,2-Dichloroethene	10	0%	24	< 0.025	**Increasing Trend**
South Settling Lagoon	Downgradient	W-3-S	trans-1,2-Dichloroethene	10	0%	24	< 0.025	**Increasing Trend**
South Settling Lagoon	Downgradient	W-4-S	trans-1,2-Dichloroethene	14	100%	68	< 0.025	**Increasing Trend**
South Settling Lagoon	Upgradient	HR-17	Trichloroethene	10	100%	20	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	Trichloroethene	10	100%	12	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	Trichloroethene	10	100%	9	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	Trichloroethene	14	100%	58	< 0.025	**Increasing Trend**
South Settling Lagoon	Upgradient	HR-17	Vinyl Chloride	10	0%	11	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-2-S	Vinyl Chloride	10	0%	0	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-3-S	Vinyl Chloride	10	0%	0	> 0.025	No Trend
South Settling Lagoon	Downgradient	W-4-S	Vinyl Chloride	14	0%	0	> 0.025	No Trend

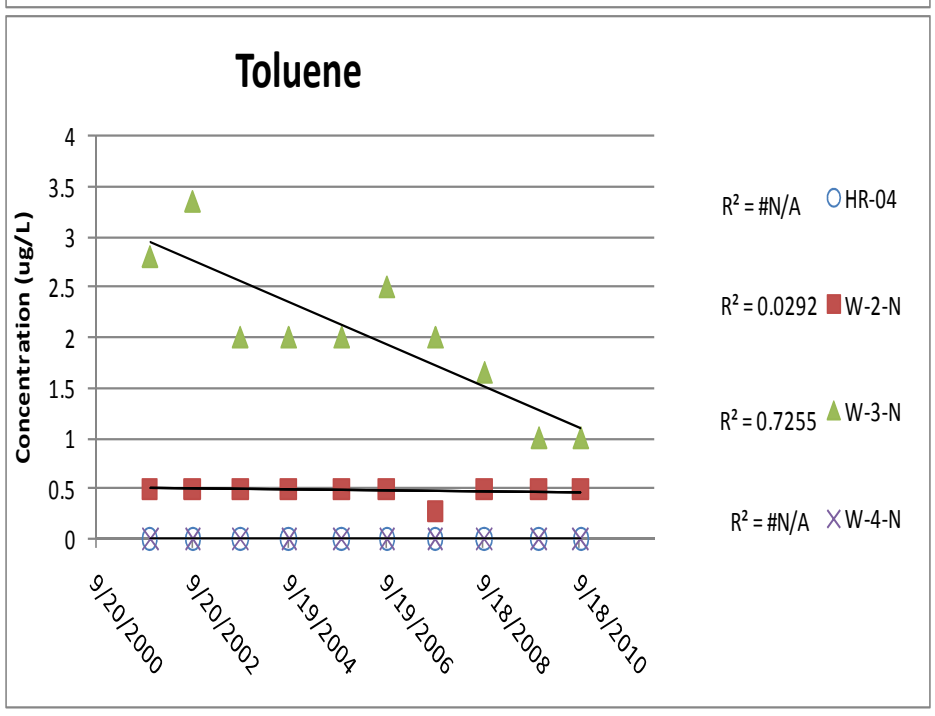
Increasing trends that are statistically significant in downgradient monitoring wells are shown in bold font.
An increasing trend is shaded if the detection frequency is 40% or greater, or if the three most recent sampling results were over the analytical detection limit.

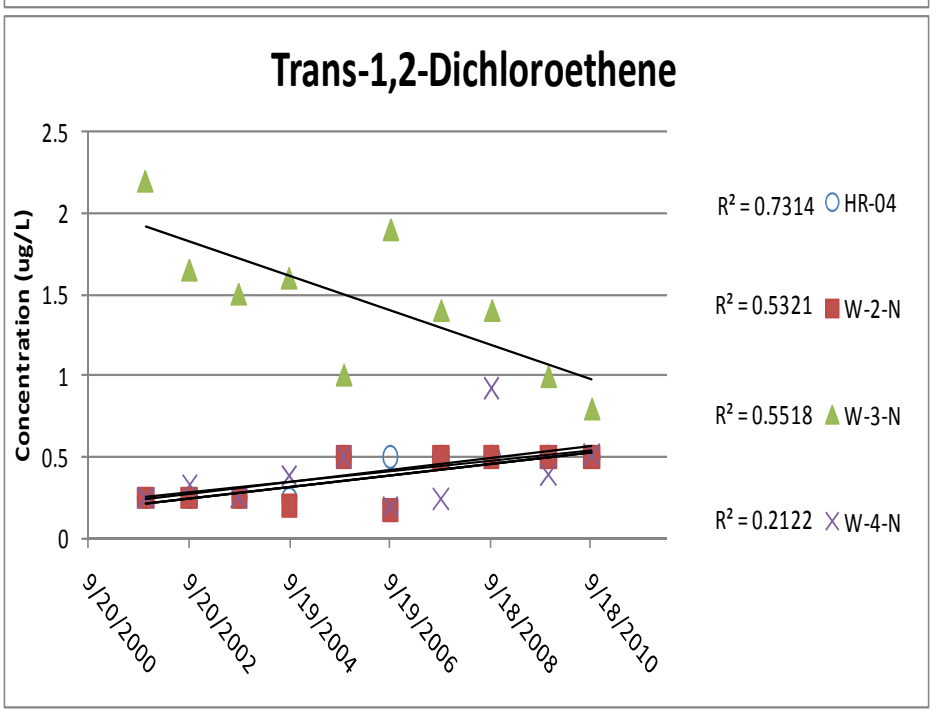


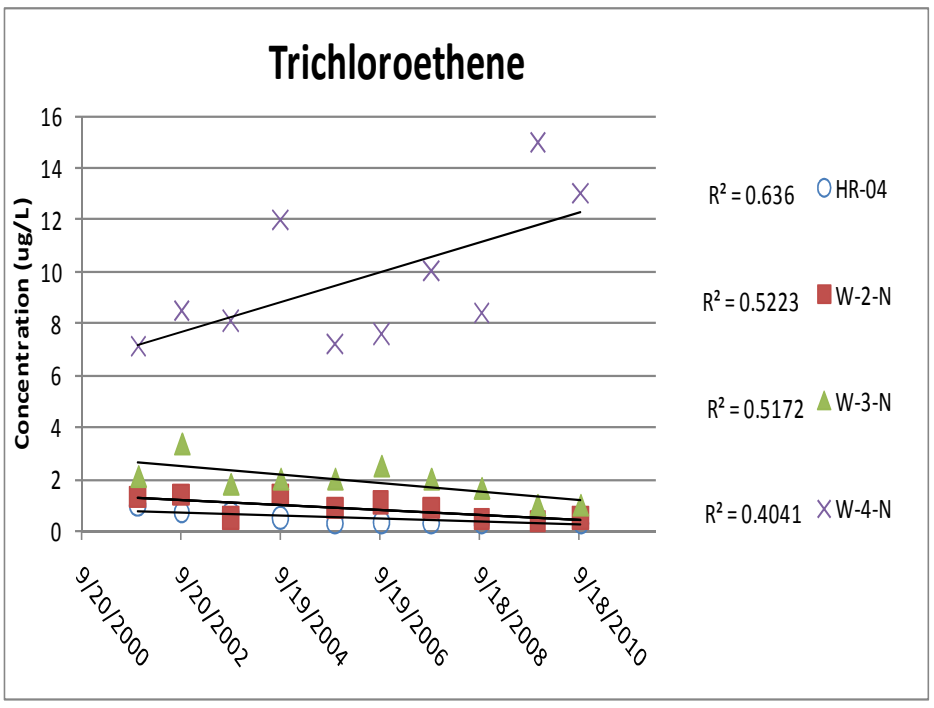


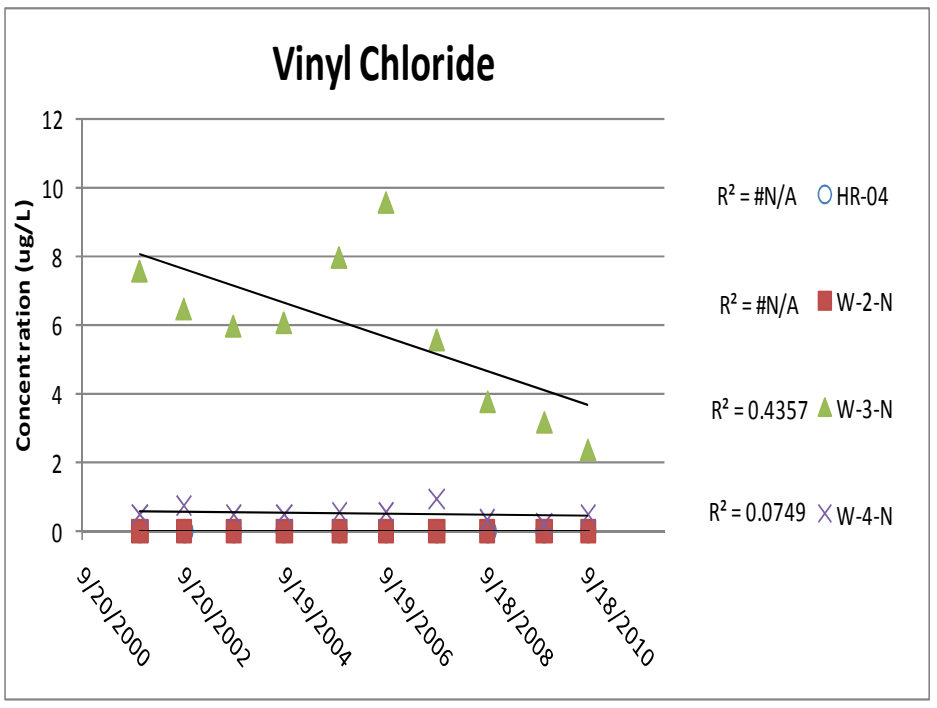












Note: R^2 = #N/A refers to a slope of zero

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North Settling Lagoon
Linear Regression Graphs

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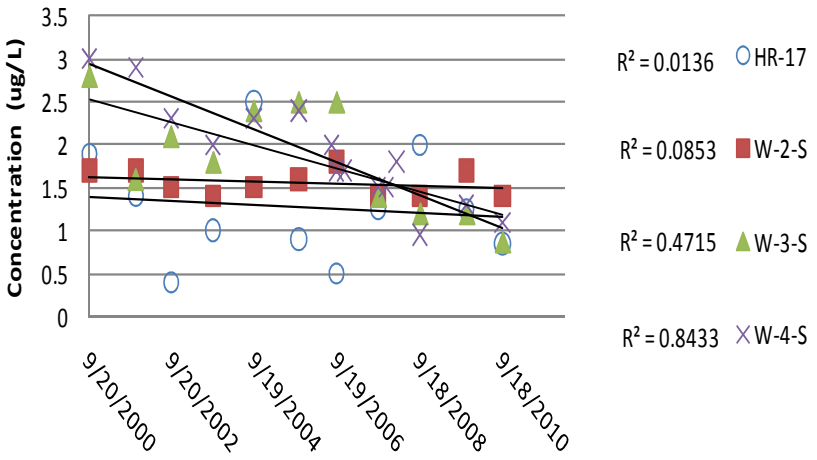
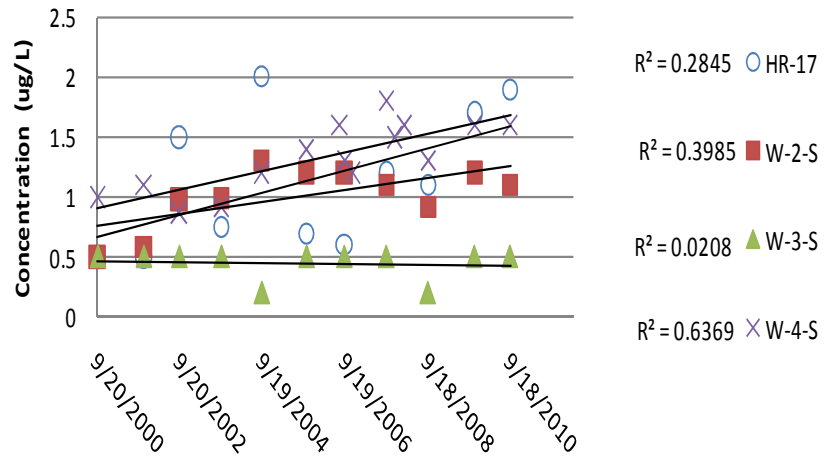
FIGURE
E-1

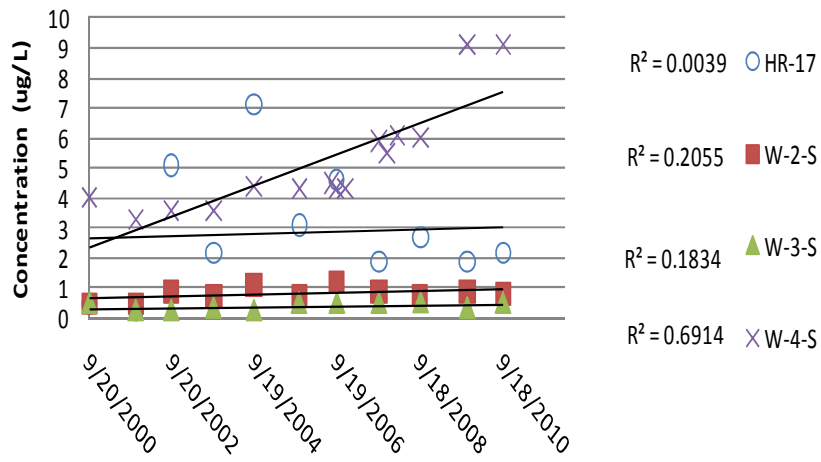
1,1,1-Trichloroethane



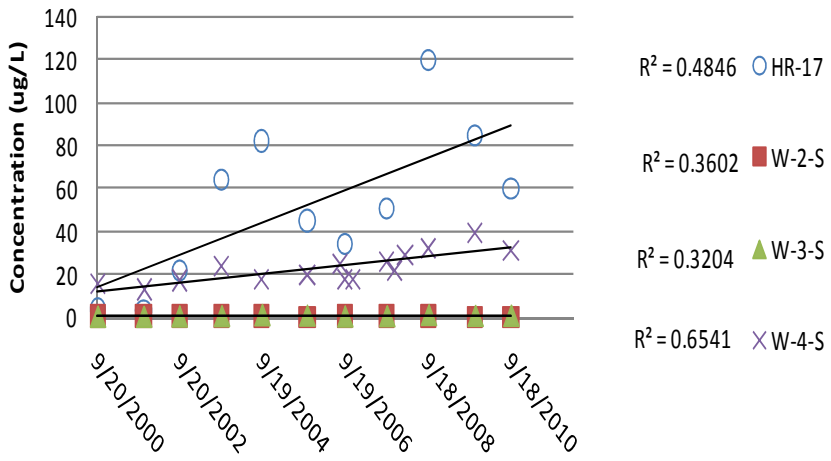
1,1-Dichloroethane



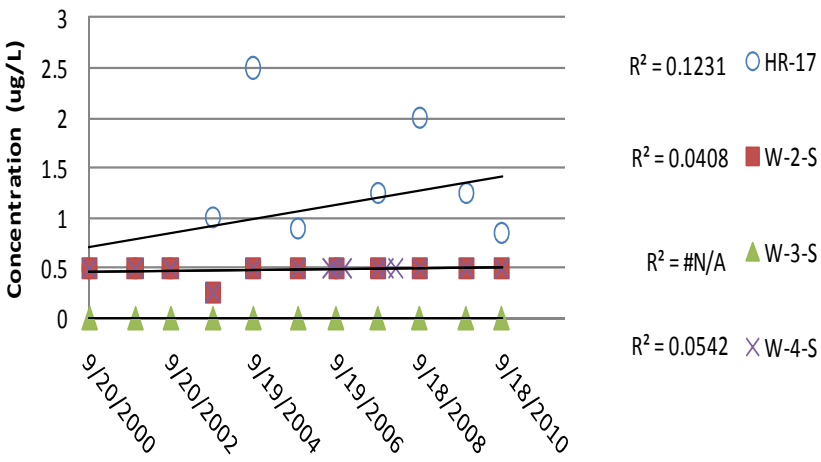
cis-1,2-Dichloroethene



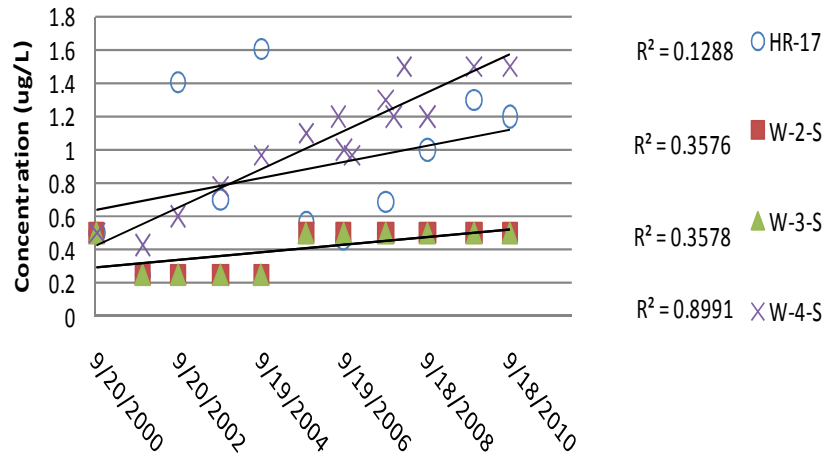
Tetrachloroethene



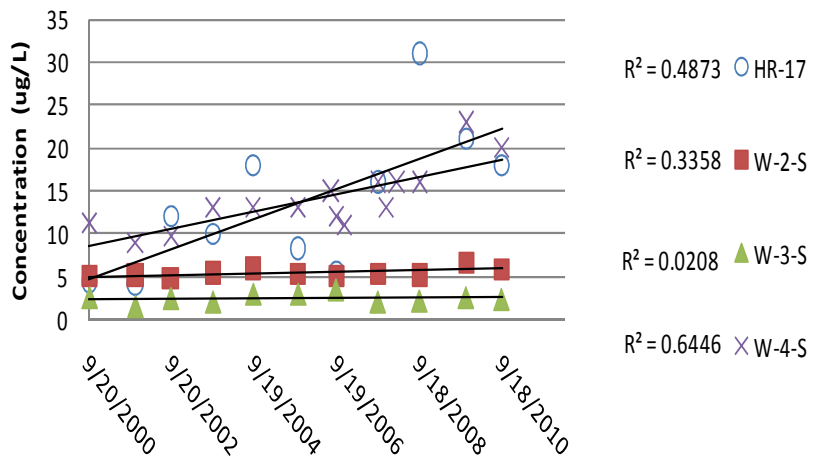
Toluene



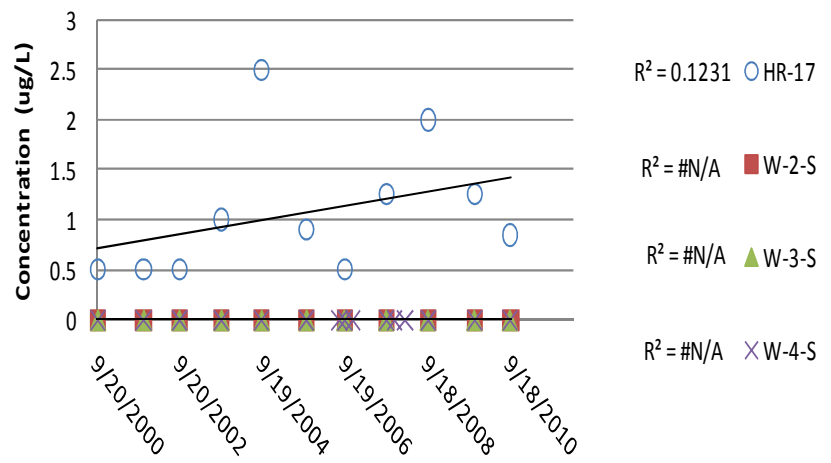
trans-1,2-Dichloroethene



Trichloroethene



Vinyl chloride



Note: R^2 = #N/A refers to a slope of zero

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South Settling Lagoon
Linear Regression Graphs

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FIGURE
E-2