Site Investigation Report

REALM Inc.
Peninsula Area Property
Saginaw, Michigan

August 10, 2005

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engineers, scientists, economists

Table of Contents

Section 1. Introduction **1-1**

Section 2. Scope of Investigation **2-1**

Section 3. Investigation Results **3-1**

Section 4. Summary and Conclusions **4-1**

References

Tables

Table 1 2004 Monitoring Well Installations, Construction Details
Table 2 Groundwater Elevation Data, September 15, 2004
Table 3 Field Parameters, September and December 2004 Groundwater Monitoring Event
Table 4 Groundwater Analytical Results – September 2004, Volatile Organic Compounds
Table 5 Groundwater Analytical Results – September 2004, Semi-volatile Organic Compounds
Table 6 Groundwater Analytical Results – September and December 2004, Inorganic Constituents
Table 7 Surface Water Analytical Results – September 2004

Figures

Figure 1 Site Location Map
Figure 2 Cross-Section Location Map
Figure 3 Geologic Cross-Section A-A'
Figure 4 Geologic Cross-Section B-B'
Figure 5 Geologic Cross-Section C – C'
Figure 6 Geologic Cross-Section D – D'
Figure 7 Geologic Cross-Section E – E'
Figure 8 Water Table Elevation Contour Map – September 15, 2004
Figure 9 Groundwater and Surface Water Quality Data, September and December 2004

Appendices

Appendix A Monitoring Well Construction Logs
A-1 2004 Installations
A-2 Historical Installations
Appendix B Groundwater and Surface Water Sampling Logs – September and December 2004
Appendix C Historical Groundwater Sampling Analytical Results
C-1 Volatile Organic Compounds
C-2 Semi-Volatile Organic Compounds
C-3 Polychlorinated Biphenyls
C-4 Inorganic Constituents
Appendix D Delphi Analytical Data

1. Introduction

This report provides the results of additional investigation completed at the Peninsula Area Property (the Site), located in Saginaw, Michigan (Figure 1). The property was formerly part of the Delphi Automotive Systems (Delphi) Plant 2 property, but is currently owned by the Remediation and Liability Management Company Inc. (REALM Inc.), a subsidiary of the General Motors Corporation (GM).

Field investigations of the Site were initiated in November 1997, pursuant to the *Remedial Investigation (RI) Work Plan* (Blasland, Bouck, & Lee, Inc. [BBL], 1997). Since then, a series of investigations have been completed to further investigate the extent and potential source(s) of the constituents detected on-Site. The data presented in this report were collected in response to a series of communications with the Michigan Department of Environmental Quality (MDEQ). A proposed scope of work was initially presented to the MDEQ in a letter dated September 19, 2003. A response letter from the MDEQ dated March 17, 2004 requested additional work activities. A meeting with MDEQ and Delphi representatives was held in Saginaw on April 26, 2004, to discuss the Site, and to coordinate and reach agreement on the scope of additional investigation activities to be completed. The agreed upon scope of investigation was described in a letter dated April 29, 2004, that was sent from BBL, on behalf of GM, to the MDEQ. Ten additional monitoring wells were installed in August and September 2004, groundwater samples were collected in September 2004, and a letter report presenting the data was sent to the MDEQ on December 3, 2004. The letter report included a proposal for the collection of additional groundwater samples for selenium analysis. The additional groundwater samples were collected in December 2004. Since that time, as part of additional data evaluation activities, GM has also evaluated additional characterization data collected by Delphi (MACTEC, 2005) on the Former Delphi Plant 2 property, adjacent to the northern property boundary.

2. Scope of Investigation

As proposed in the April 29, 2004 Work Plan, ten new monitoring wells were installed in August/September 2004 at the following locations (Figure 2).

- Two two-well clusters (MW04-122WT, MW04-122S1, MW04-123WT and MW04-123S1) were installed along the western edge of the property to provide groundwater quality data upgradient of the wetland located west of the Site, on the adjacent REALM Green Point Landfill property;

- At an additional location along the western property boundary, one additional deep monitoring well (MW04-118S1) was installed adjacent to existing monitoring well MW01-118WT to provide vertical delineation of groundwater quality at this location;

- One two-well cluster (MW04-124WT and MW04-124S1) was installed south of the wetland on the REALM Green Point Landfill property to provide additional groundwater quality and hydraulic head information;

- One two-well cluster (MW04-121WT and MW04-121S1) was installed east of the Site on the adjacent GM Saginaw Malleable Iron (SMI) Plant property to evaluate the potential for groundwater quality impacts from the Green Point Landfill; and

- One water table well (MW04-119WT) was installed northeast of the Site on the adjacent SMI property to further investigate a sheen that was observed during installation of MW01-119S1.

Groundwater samples were collected from the on-Site monitoring wells and one surface water sample was collected from a wetland area located west of the Peninsula Area property in September 2004. Additional surface water samples had been proposed, but were not collected due to the dry conditions at the time of sampling. The surface water sample was collected from a localized pool of standing water adjacent to the wetland staff gauge. Groundwater elevation measurements were made at all of the Site wells and nearby wells located on the surrounding Delphi, GM, and REALM properties.

Based on the results of the groundwater sampling completed in September 2004, additional groundwater samples were collected from seven monitoring wells located in the southern portion of the Site in December 2004 and analyzed for total and dissolved selenium. An attempt was made to collect the remaining four surface water samples that were proposed in the April 2004 Work Plan. At the time of the sampling activities, the water was frozen, and could not be sampled.

3. Investigation Results

General

The field investigation tasks were completed in accordance with the Site Quality Assurance Project Plan and the scopes of work outlined in the April 2004 Work Plan and the December 2004 letter report. Due to the proximity of the Delphi property immediately north and upgradient of the Site, investigations at the two properties were coordinated, and subsurface characterization data (analytical and physical) collected by Delphi have been considered in this evaluation.

Site Geology

Table 1 presents the construction details of the ten monitoring wells installed during the most recent round of Site investigation. A total of 19 monitoring wells are present at the Site. Additional monitoring wells are present at each of the properties surrounding the Site: Delphi former Plant 2 to the north, the SMI Plant property to the east, and the REALM Green Point Landfill property to the south and west. The boring and monitoring well installation logs are provided in Appendix A.

The overburden is composed of (in descending order): fill materials, a sand unit with varying percentages of silt, and silty clay glacial till. A cross-section location map (Figure 2), and five cross-sections (Figures 3 through 7) are provided. The fill material ranges in thickness from approximately six to ten feet across the Site. The composition of the fill material varies from black, fine- to medium-grained poorly-sorted sand, to well-sorted mixtures of sand, silt, clay, and slag with fragments of concrete, brick, glass, and/or metal debris. The sand unit consists of gray to brown fine- to medium-grained sand with occasional seams or lenses of glaciolacustrine silt, silty sand, and silty clay. The till unit consists of silty clay that is typically brown or gray and which contains minor amounts of sand and gravel. The surface of the till is higher at the western edge of the Site, and the overlying sand unit decreases in thickness in this area (Figure 3).

Groundwater Elevation Data and Site Hydrogeology

Water levels were measured at the monitoring wells located within the Peninsula Property and at nearby monitoring wells located in adjacent areas of the GM SMI, REALM Green Point Landfill, and Delphi properties on September 15, 2004. The surface water elevation was also measured at a staff gauge located west of the Peninsula Area property, on the adjacent REALM Green Point Landfill property. Table 2 presents the groundwater elevation data. A water table elevation contour map, prepared based on the September data, is included as Figure 8.

As shown on Figure 8, groundwater flow at the water table is generally to the west-southwest toward the marshy area west of the Peninsula Area. At the south end of the Peninsula Area, groundwater flow is to the north-northwest due to mounding from the Green Point Landfill. North of the Peninsula Area, on the southern portion of the Delphi property, a groundwater divide appears to be present, resulting in components of flow toward the northeast and toward the southwest.

Groundwater and Surface Water Analytical Data

The analytical data are presented in Tables 3 through 7, and the Sampling Logs are included in Appendix B. Groundwater analytical data collected previously at the Site, and data collected by Delphi at the adjacent former Plant 2 property are provided in Appendices C and D. Figure 9 shows the distribution of key constituents within

groundwater and surface water at Site and the surrounding properties. The groundwater data were compared to the following generic MDEQ criteria: Industrial Drinking Water (IDW), Groundwater Surface Water Interface (GSI) criteria, Groundwater Contact Criteria (GCC), Industrial Groundwater Volatilization to Indoor Air Inhalation (IGVIA) criteria, and Flammability and Explosivity Screening Levels (FESL). The surface water analytical data were compared to the following Rule 57 Surface Water Quality Values: Human Non-Drinking Water Values (HNDVs), Wildlife Values (WVs), Final Chronic Values (FCV), and Aquatic Maximum Values (AMVs).

Volatile Organic Compounds

The detected concentrations of the following volatile organic compounds (VOCs) exceeded the IDW and GSI criteria at one or more Site monitoring well location: cis-1,2-dichloroethene (cis-1,2-DCE), chlorobenzene, ethylbenzene, vinyl chloride, xylene, trans-1,2-dichloroethene (trans-1,2-DCE), and toluene. Benzene was detected above the IDW criteria; however, the benzene GSI criteria were not exceeded. The following Site monitoring wells contained one or more VOCs at concentrations above the IDW and GSI criteria: MW01-118 WT, MW04-118S1, MW04-122WT, MW04-122S1, MW04-123WT, MW04-123S1, MW04-124S1, MW97-104S1, MW98-108S1, MW98-109S1, MW98-110S1, MW98-111S1, MW98-111WT, and TW98-109WT. As shown on Figure 9, the monitoring well locations associated with the presence of VOCs above criteria are located in the northern, central, and western portions of the Site. At each monitoring well cluster, the detected VOCs are found with much higher concentrations in the deeper well than the shallow well. The VOCs detected at the Site were also found at concentrations above the criteria on the upgradient Delphi property north of the Site.

The GCC was exceeded for vinyl chloride at the following five Site monitoring wells: MW04-118S1, MW04-122S1, MW04-123S1, MW97-104S1, MW98-108S1, and MW98-109S1. These monitoring wells are all screened at the base of the sand unit, and are located in the central portion and along the western edge of the Site. The GCC was exceeded for vinyl chloride and for trichloroethene at Delphi monitoring well MW-04-01D, located 100 feet north of the Site. The GCC for vinyl chloride was also exceeded at Delphi monitoring well MW-04-05D. VOCs were either not detected, or detected at much lower concentrations at wells screened in the shallow section of the water bearing unit.

The IGVIA criteria were exceeded for vinyl chloride at Site monitoring wells MW04-122S1, and MW04-123S1. These monitoring wells are both screened at the base of the sand unit, and are located at the western, downgradient property edge. The IGVIA criteria for trichloroethene and vinyl chloride were exceeded at monitoring well MW-04-01D, located on the Delphi property.

The FESL screening values were not exceeded at any location at the Site or on the adjacent Delphi property (Figure9).

The surface water sample collected from the wetland west of the Site contained four VOCs, 2-butanone, acetone, chlorobenzene, and toluene at low concentrations. None of the detected VOCs were found at concentrations above the Rule 57 Water Quality Values (Table 7).

Semi-Volatile Organic Compounds

One semi-volatile organic compound (SVOC), bis(2-ethylhexyl)phthalate, was detected above IDW criteria at three monitoring wells, MW-129WT, located east of the Peninsula Area, MW98-111S1, located along the northern Site perimeter, and TW98-108WT, located in the central portion of the Site. Bis(2-ethylhexyl)phthalate was not analyzed for at the Delphi property.

Three additional SVOCs were detected at one or more of the Site monitoring wells. Specifically, 1,2-dichlorobenzene (19 ug/L [estimated] at MW04-118S1; 17 ug/L at MW97-104S1), 1,4-dichlorobenzene (13 ug/L at MW97-104S1), and naphthalene (88 ug/L at MW98-111S1) were detected above the GSI criteria at monitoring wells located in the northwest section of the Site. Napthalene was also detected above the GSI criteria at the Delphi property, at monitoring well MW-04-02WT. The remaining SVOCs were not detected at the Delphi wells. However, due to elevated detection limits at many of the sampling locations (e.g., the detection limits for 1,2-dichlorobenzene and 1,4-dichlorobenzene at upgradient Delphi monitoring well MW-04-01WT were 100 ug/L, well above the concentrations detected at the Site), the presence or absence of these compounds could not be determined.

One SVOC, bis(2-ethylhexyl)phthalate, was detected in the surface water sample collected west of the Site. The detection was estimated and did not exceed the Rule 57 Water Quality Values. It should be noted that this compound is a common laboratory contaminant.

Inorganic Constituents

Iron was detected at seven Site monitoring wells (MW-129WT, MW-144WT, MW04-119WT, MW04-122S1, MW04-124WT, MW97-105WT, and MW98-111S1) above the IDW criteria. Barium was also detected above the IDW criteria at one monitoring well (MW98-111S1). Delphi did not analyze collected groundwater samples for iron. Samples collected in August 2004 at the Delphi property (Appendix D) show barium concentrations above the IDW criteria in a series of monitoring wells located north and upgradient of the Site.

Selenium was detected above GSI criteria at nine on-Site monitoring wells (MW-144WT, MW01-119S1, MW04-119WT, MW04-121S1, MW04-121WT, MW04-124S1, MW04-124WT, MW97-105S1, and MW97-105WT). These monitoring wells are generally located in the southern portion of the Site. After selenium was detected in a number of Site wells during the September sampling event, an additional sampling round was completed in December 2004. The results of that sampling event also showed the detection of selenium above GSI criteria. The monitoring wells installed along the downgradient Site perimeter, upgradient of the adjacent wetland (monitoring well clusters 118, 122, and 123) were found to be either non-detect for selenium, or the detected concentrations were below the GSI criteria.

The surface water sample contained selenium at a concentration above the Final Chronic Value (FCV). Selenium was detected at a concentration of 9.1 micrograms per liter (ug/L), above the FCV of 5 ug/L.

4. Summary and Conclusions

Based on the distribution of VOCs in groundwater observed at the Peninsula Area, we believe that the VOC compounds detected above the generic MDEQ criteria have migrated to the property from the adjacent Plant 2 property, north of the Peninsula. The VOCs detected above criteria are consistently found at greater concentrations with depth, and previous soil investigation did not detect significant concentrations of these compounds in the soil above the water table on the Peninsula property. This distribution indicates the likelihood of an off-Site source. This belief is further supported by the detection of similar elevated VOC concentrations on the upgradient Delphi property. A progression from parent (e.g., trichloroethene) to daughter degradation product VOCs (e.g. vinyl chloride) is also observed along the groundwater flow path from the Delphi Site onto the REALM property. The distribution of the SVOCs detected above criteria also suggests an off-Site source; however, because of elevated detection limits for the SVOC samples collected at the Delphi property, this could not be verified with existing data.

Iron has been detected at multiple locations at and surrounding the Site at concentrations above the IDW criteria. The IDW criteria were used for screening purposes; however, since the groundwater is not used for drinking water purposes, additional future monitoring for iron is not recommended. Barium was detected at one interior Site location at a concentration above the IDW criteria. Additional future monitoring for barium is also not recommended due to the lack of groundwater use. The elevated concentrations of selenium in the southern part of the Site may be related to an on-Site source. However, the concentrations of selenium are below the GSI criteria of 5 ug/L upgradient of the wetland at monitoring wells MW01-118WT, MW04-118S1, MW04-122WT, MW04-122S1, MW04-123WT and MW04-123S1, with a maximum selenium detection of 2.3 ug/L, well below the GSI criteria. Selenium will be sampled for in another round of groundwater sampling, due to the detection of selenium in the surface water sample at a concentration above the FCV. At the time of collection of the surface water sample, the surface water present amounted to a small stagnant pool of water. It is recommended that additional surface water samples be collected during a period of time when the area of standing surface water is expanded and not frozen.

References

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Tables

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TABLE 1

2004 MONITORING WELL INSTALLATIONS
CONSTRUCTION DETAILS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Monitoring Well Location	Date Installed	Grade Elevation (feet AMSL)	Top of Casing Elevation (feet AMSL)	Screen Interval (feet below grade)	Well Construction Material
MW-04-118S1	8/31/2004	592.88	596.21	14-17	PVC
MW-04-119WT	9/1/2004	593.52	596.24	4-14	PVC
MW-04-121S1	9/1/2004	593.61	596.45	17-22	PVC
MW-04-121WT	9/1/2004	593.55	596.45	5-15	PVC
MW-04-122S1	8/31/2004	592.91	596.12	13.5-16.5	PVC
MW-04-122WT	9/1/2004	592.77	595.84	4-14	PVC
MW-04-123S1	8/31/2004	592.27	595.34	15-18	PVC
MW-04-123WT	8/31/2004	592.46	595.50	5-15	PVC
MW-04-124S1	8/30/2004	589.03	591.91	13-18	PVC
MW-04-124WT	9/1/2004	588.83	591.68	5-15	PVC

Notes:

AMSL = Above mean sea level, datum referenced to NAVD of 1988.
S1 - Well screened within the Sand Unit.
WT - Well is screeded at the water table.
Elevations from March 2005 MACTEC Report titled, *Site Investigation Report, Former Plant 2 Site, Delphi Saginaw Steering Systems, Saginaw, Michigan* .

TABLE 2

GROUNDWATER ELEVATION DATA
SEPTEMBER 15, 2004

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location I.D.	Top of Casing Elevation (ft msl)	Depth to Water from Top of Inner Casing (feet)	Groundwater Elevation (ft msl)	Location I.D.	Groundwater Elevation (ft msl)	Depth to Water from Top of Inner Casing (feet)	Groundwater Elevation (ft msl)
MW-129	588.78	6.23	582.55	TW98-110WT	595.13	8.44	586.69
TW98-111WT	595.25	8.51	586.74	MW98-110S1	594.25	7.51	586.74
MW98-111S1	595.13	8.75	586.38	MW01-119S1	595.92	8.80	587.12
MW-04-122WT	595.84	10.30	585.54	MW-04-119WT	596.24	9.11	587.13
MW-04-122S1	596.12	10.62	585.50	MW-143WT	598.05	9.53	588.52
MW97-104WT	595.44	9.29	586.15	TW98-108WT	594.95	8.95	586.00
MW97-104S1	595.01	8.83	586.18	MW98-108S1	595.7	9.72	585.98
MW01-118WT	594.44	8.91	585.53				
MW04-118S1	596.21	10.86	585.35	**Delphi Locations**			
TW98-109WT	594.63	8.92	585.71	MW-200S	593.77	8.13	585.64
MW98-109S1	594.71	8.85	585.86	MW-201D	594.16	8.30	585.86
MW04-123S1	595.34	9.84	585.50	MW-201S	594.05	8.26	585.79
MW04-123WT	595.5	9.67	585.83	MW-04-01D	595.19	8.71	586.48
MW04-124WT	591.68	6.44	585.24	MW-04-01WT	595.53	8.00	587.53
MW04-124S1	591.91	7.01	584.90	MW-04-02WT	595.52	8.31	587.21
MW97-105S1	594.94	9.06	585.88	MW-04-02D	595.84	8.75	587.09
MW97-105WT	595.42	9.55	585.87	MW-142WT	595.98	8.73	587.25
MW-144WT	594.93	8.40	586.53	MW-142D	596.44	9.25	587.19
X-20	NA	5.46	NA	PZ-36	592.72	5.16	587.56
X-1B	599.07	13.72	585.35				
X-1A	599.1	12.70	586.40	**SMI Locations**			
MW04-121WT	596.45	10.37	586.08	B-2R	596.25	8.59	587.66
MW04-121S1	596.45	11.71	584.74	B-2BAUG	596.35	8.72	587.63

Notes:

1. Monitoring wells MW04-123WT and MW04-123S1 were mislabeled at the time water level measurements were made. The data have been corrected.
2. Top of Casing Elevations from March 2005 MACTEC Report titled, *Site Investigation Report, Former Plant 2 Site, Delphi Saginaw Steering Systems, Saginaw, Michigan*.
3. NA = Not available.

TABLE 3

FIELD PARAMETERS
SEPTEMBER AND DECEMBER 2004 GROUNDWATER MONITORING EVENT

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Well ID	Date Sampled	pH (SU)	Temperature (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTUs)
MW-04-118S1	9/16/2004	6.88	17.92	6.244	0.12	-116.9	5.29
MW-129	9/17/2004	6.66	13.72	1.943	0.33	-91.9	7.97
MW-144WT	9/15/2004	6.78	19.7	1.878	0.08	-166.2	9.65
MW-144WT	12/21/2004	6.84	9.02	1.776	0.26	NA	15.3
MW-97-104S1	9/16/2004	7.02	15.43	4.273	0.3	-131.3	1.52
MW-97-104WT	9/16/2004	7.32	16.02	1.754	0.03	-156.1	1.76
MW-97-105S1	9/15/2004	6.56	15.67	2.656	0.17	-97.6	2.71
MW-97-105S1	12/21/2004	6.64	9.85	2.872	0.3	NA	0.86
MW-97-105WT	9/15/2004	6.61	17.1	2.635	1.28	-122.5	4.63
MW-97-105WT	12/21/2004	7.10	10.45	1.818	0.19	NA	4.03
TW98-108WT	9/15/2004	7.11	16.93	0.857	0.11	-152.9	3.47
MW-98-108S1	9/15/2004	6.70	15.96	3.413	0.52	-101.7	1.95
TW98-109WT	9/15/2004	6.87	16.86	2.598	0.34	-121	6.18
MW-98-109SI	9/15/2004	6.79	15.82	3.845	0.17	-128.9	1.76
MW-98-110S1	9/17/2004	7.28	14.94	1.776	0.25	-146	4.86
MW-98-110WT	9/17/2004	7.31	15.57	1.739	0.31	-137.4	5.94
MW-98-111S1	9/17/2004	6.83	14.01	4.464	0.16	-130	9.98
MW-98-111WT	9/17/2004	8.31	14.84	3.047	0.23	-106.2	6.94
MW-01-118WT	9/16/2004	7.19	16.3	2.922	0.3	-112.6	2.12
MW-04-119WT	9/16/2004	7.30	20.58	1.501	0.11	-189.7	9.87
MW-04-119WT	12/22/2004	7.54	8.7	0.91	0.26	NA	16.1
MW-01-119S1	9/16/2004	6.99	16.19	1.883	0.07	-125.2	9.53
MW-01-119S1	12/22/2004	7.15	7.4	1.17	0.42	NA	9.61
MW-04-121WT	9/16/2004	7.98	16.97	1.087	0.18	-220.4	7.22
MW-04-121WT	12/21/2004	9.93	10.15	1.351	0.05	NA	2.67
MW-04-121S1	9/16/2004	6.77	15.95	2.842	0.18	-87.9	9.71
MW-04-122WT	9/16/2004	7.05	16.42	4.546	0.19	-83.7	8.75
MW-04-122S1	9/16/2004	6.67	15.73	9.032	0.12	-90	9.74
MW-04-123WT	9/16/2004	6.72	15.7	2.649	0.16	-94.1	5.18
MW-04-123S1	9/16/2004	6.99	15.94	2.553	0.69	-96.5	1.45
MW-04-124WT	9/15/2004	6.65	19.67	1.76	0.15	-72.9	6.25
MW-04-124WT	12/21/2004	6.79	8.09	1.417	0.16	NA	1.56
MW-04-124SI	9/15/2004	6.71	18.04	2.048	0.14	-40.5	6.15
MW-04-124SI	12/21/2004	9.58	8.76	3.326	0.21	NA	2.88

TABLE 4

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MDEQ Criteria					MW-129WT	MW-129WT
Date Sampled:						9/17/2004	9/17/2004
Sample Type:	GCC	IGVIA	FESL	IDW	GSI	FS	DUP
Volatile Organic Compounds (ug/L)							
1,1-Dichloroethane	2.4E+06	2.3E+06	3.8E+05	2,500	740	1.0 U	1.0 U
1,2-Dichloroethene, Total	--	--	--	--	--	**1.1 J**	**1.1 J**
cis-1,2-Dichloroethene	2.0E+05	2.1E+05	5.3E+05	70 {A}	620	**1.1**	**1.1 J**
trans-1,2-Dichloroethene	2.2E+05	2.0E+05	2.3E+05	100 {A}	1,500	1.0 U	1.0 U
2-Butanone	2.4E+8 {S}	2.4E+8 {S}	ID {I}	38,000	2,200	25 U	25 U
Acetone	3.1E+07	1.0E+9 {D,S}	1.5E+07	2,100	1,700	25 U	25 U
Benzene	11,000	35,000	68,000 {I}	5 {A}	200 {X}	1.0 U	1.0 U
Chlorobenzene	86,000	4.7E+5 {S}	1.6E+5 {I}	100 {A}	47	1.0 U	1.0 U
Chloroethane	4.4E+05	5.7E+6 {S}	1.1E+05	1,700	ID	1.0 U	1.0 U
Ethylbenzene	1.7E+5 {S}	1.7E+5 {S}	43,000	74 {E}	18	1.0 U	1.0 U
Toluene	5.3E+5 {S}	5.3E+5 {S}	61,000 {I}	790 {E}	140	1.0 U	1.0 U
Trichloroethene	22,000	97,000	ID	5.0 {A}	200 {X}	1.0 U	1.0 U
Vinyl chloride	1,000	13,000	33,000	2.0 {A}	15	**0.59 J**	**0.60 J**
Xylenes, Total	1.9E+5 {S}	1.9E+5 {S}	70,000	280 {E}	35	2.0 U	2.0 U

See Notes on Page 5.

TABLE 4

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-144WT	MW-144WT	MW01-118WT	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT
Date Sampled:	9/15/2004	9/15/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	FS	DUP	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)								
1,1-Dichloroethane	**0.22 J**	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene, Total	2.0 U	2.0 U	5.7 U	2.0 U	**1,700**	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	2.9 U	1.0 U	**1,700 [IDW, GSI]**	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U
2-Butanone	25 U	25 U	72 U	25 UJ	4,200 U	25 UJ	**0.46 J**	25 U
Acetone	25 U	25 U	**9.1 J**	**2.1 J**	4,200 U	**2.1 J**	**3.4 J**	**2.6 J**
Benzene	**0.37 J**	1.0 U	**5.6 [IDW]**	1.0 U	170 U	**0.25 J**	**0.41 J**	**0.26 J**
Chlorobenzene	1.0 U	1.0 U	**82 [GSI]**	1.0 U	**140 J [IDW, GSI]**	1.0 U	1.0 U	1.0 U
Chloroethane	**5.7**	1.0 U	2.9 U	1.0 U	170 U	1.0 U	**1.7**	1.0 U
Ethylbenzene	1.0 U	1.0 U	2.9 U	1.0 U	**110 J [IDW, GSI]**	1.0 U	1.0 U	1.0 U
Toluene	**0.27 J**	1.0 U	2.9 U	1.0 U	**38 J**	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	2.9 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	1.0 U	1.0 U	2.9 U	1.0 U	**8,000 [GCC, IDW, GSI]**	1.0 U	1.0 U	1.0 U
Xylenes, Total	2.0 U	2.0 U	**8.5**	2.0 U	**500 [IDW, GSI]**	2.0 U	2.0 U	2.0 U

See Notes on Page 5.

TABLE 4

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-122S1	MW04-122WT	MW04-123WT	MW04-123S1	MW04-124S1
Date Sampled:	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)					
1,1-Dichloroethane	500 U	22 U	6.7 U	830 U	1.0 U
1,2-Dichloroethene, Total	**6,900**	**540**	**110**	**9,400**	**0.47 J**
cis-1,2-Dichloroethene	6,900 [IDW, GSI]	540 [IDW]	110 [IDW]	9,400 [IDW, GSI]	**0.47 J**
trans-1,2-Dichloroethene	500 U	**3.46**	6.7 U	830 U	1.0 U
2-Butanone	12,000 U	**9.8 J**	170 U	21,000 U	25 U
Acetone	12,000 U	**27 J**	**8.5 J**	21,000 U	25 U
Benzene	500 U	13 J [IDW]	**2.7 J**	830 U	1.0 U
Chlorobenzene	500 U	65 [GSI]	**21**	830 U	1.0 U
Chloroethane	500 U	22 U	6.7 U	830 U	**0.77 J**
Ethylbenzene	700 [IDW, GSI]	22 [GSI]	6.7 U	830 U	1.0 U
Toluene	240 J [GSI]	**6.6 J**	**1.3 J**	830 U	**0.51 J**
Trichloroethene	500 U	22 U	6.7 U	830 U	1.0 U
Vinyl chloride	13,000 [GCC, IGVIA, IDW, GSI]	480 [IDW, GSI]	230 [IDW, GSI]	27,000 [GCC, IGVIA, IDW, GSI]	16 [IDW, GSI]
Xylenes, Total	1,400 [IDW, GSI]	44 [GSI]	**13**	1,700 U	2.0 U

See Notes on Page 5.

TABLE 4

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-124WT	MW97-104S1	MW97-104WT	MW97-105S1	MW97-105WT	MW98-108S1	MW98-109S1
Date Sampled:	9/15/2004	9/16/2004	9/16/2004	9/15/2004	9/15/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)							
1,1-Dichloroethane	1.0 U	110 U	1.0 U	1.0 U	1.0 U	200 U	50 U
1,2-Dichloroethene, Total	2.0 U	**2,400**	**0.72 J**	2.0 U	2.0 U	**5,200**	**180**
cis-1,2-Dichloroethene	1.0 U	2,400 [IDW, GSI]	**0.43 J**	1.0 U	1.0 U	5,200 [IDW, GSI]	180 [IDW]
trans-1,2-Dichloroethene	1.0 U	110 U	**0.29 J**	1.0 U	1.0 U	200 U	50 U
2-Butanone	25 U	2,800 U	25 U	25 U	25 U	5,000 U	1,200 U
Acetone	**1.7 J**	2,800 U	**1.2 J**	**8.0 J**	**7.6 J**	5,000 U	1,200 U
Benzene	**0.24 J**	110 U	**4.9**	**0.25 J**	**1.2**	200 U	50 U
Chlorobenzene	1.0 U	220 [IDW, GSI]	**6**	1.0 U	1.0 U	200 U	79 [GSI]
Chloroethane	**0.60 J**	110 U	1.0 U	**1.7**	**0.73 J**	200 U	50 U
Ethylbenzene	1.0 U	110 U	1.0 U	1.0 U	1.0 U	200 U	50 U
Toluene	**0.50 J**	110 U	1.0 U	**0.32 J**	**0.45 J**	200 U	**12 J**
Trichloroethene	1.0 U	110 U	**0.59 J**	1.0 U	1.0 U	200 U	50 U
Vinyl chloride	**0.27 J**	1,900 [GCC, IDW, GSI]	1.0 U	1.0 U	1.0 U	5,000 [GCC, IDW, GSI]	2,100 [GCC, IDW, GSI]
Xylenes, Total	2.0 U	220 U	**3.1**	2.0 U	**2.9**	400 U	100 U

See Notes on Page 5.

TABLE 4

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
VOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111WT	TW98-108WT	TW98-109WT
Date Sampled:	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds (ug/L)						
1,1-Dichloroethane	420 U	1.0 U	83 U	2.0 U	1.0 U	3.3 U
1,2-Dichloroethene, Total	**13,000**	2.0 U	170 U	4.0 U	2.0 U	6.7 U
cis-1,2-Dichloroethene	**13,000 [IDW, GSI]**	1.0 U	83 U	2.0 U	1.0 U	3.3 U
trans-1,2-Dichloroethene	**110 J [IDW]**	1.0 U	83 U	2.0 U	1.0 U	3.3 U
2-Butanone	10,000 U	**1.6 J**	2,100 U	**2.0 J**	25 U	83 U
Acetone	10,000 U	**7.6 J**	2,100 U	**8.2 J**	**1.9 J**	**5.4 J**
Benzene	420 U	1.0 U	**95 [IDW]**	**13 B [IDW]**	**0.34 J**	**4**
Chlorobenzene	420 U	1.0 U	**200 [IDW, GSI]**	**9.5**	**0.96 J**	**110 [IDW, GSI]**
Chloroethane	420 U	1.0 U	83 U	2.0 U	1.0 U	3.3 U
Ethylbenzene	420 U	1.0 U	**1,700 [IDW, GSI]**	**44 [GSI]**	1.0 U	3.3 U
Toluene	420 U	1.0 U	**810 [IDW, GSI]**	**1.7 J**	1.0 U	**1.2 J**
Trichloroethene	420 U	1.0 U	83 U	2.0 U	1.0 U	3.3 U
Vinyl chloride	**1,400 [GCC, GSI, IDW]**	1.0 U	83 U	**0.88 J**	1.0 U	**2.4 J [IDW]**
Xylenes, Total	830 U	2.0 U	**5,400 [IDW, GSI]**	**150 [GSI]**	2.0 U	**9.8**

Notes:
Data shown for only those Target Compound List volatile organic compounds that were detected in one or more samples.
See Generic Notes pages.

TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MDEQ Criteria			MW-129WT	MW-129WT	MW-144WT	MW-144WT
Date Sampled:				9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	GCC	IDW	GSI	FS	DUP	FS	DUP
Semivolatile Organic Compounds (ug/L)							
1,2-Dichlorobenzene	1.6E+5 {S}	600 {A}	16	10 U	10 U	25 U	25 U
1,4-Dichlorobenzene	6,400	75 {A}	13	10 U	10 U	25 U	25 U
2,4-Dimethylphenol	5.2E+05	1,000	380	10 U	10 U	25 U	25 U
2-Methylnaphthalene	25,000 {S}	750	ID	5.0 U	5.0 U	12 U	12 U
4-Methylphenol	NA	NA	NA	5.0 U	5.0 U	12 U	12 U
bis(2-Chloroisopropyl) ether	NA	NA	NA	4.0 U	4.0 U	10 U	10 U
bis(2-Ethylhexyl)phthalate	32	6 {A}	32	5.0 U	6.7 [IDW]	12 U	12 U
Naphthalene	31,000 {S}	1,500	13	5.0 U	5.0 U	12 U	12 U
Phenol	2.9E+07	13,000	210	5.0 U	5.0 U	5.0 U	5.0 U

See Notes on Page 4.

TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-118WT	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT	MW04-122S1	MW04-122WT
Date Sampled:	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	40 U	10 U	**19 J [GSI]**	10 U	40 U	10 U	40 U	100 U
1,4-Dichlorobenzene	40 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U
2,4-Dimethylphenol	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U
2-Methylnaphthalene	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U
4-Methylphenol	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U
bis(2-Chloroisopropyl) ether	20 U	**6.3**	**12 J**	5.0 U	20 U	5.0 U	**24**	**7.8 J**
bis(2-Ethylhexyl)phthalate	20 U	3.8 U	20 U	5.0 U	20 U	3.8 U	20 U	50 U
Naphthalene	20 U	5.0 U	20 U	5.0 U	20 U	5.0 U	**9.0 J**	50 U
Phenol	5.0 U	20 U	5.0 U	**0.63 J**	5.0 U	5.0 U	5.0 U	5.0 U

See Notes on Page 4.

TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-123WT	MW04-123S1	MW04-124S1	MW04-124WT	MW97-104S1	MW97-104WT	MW97-105S1	MW97-105WT
Date Sampled:	9/16/2004	9/16/2004	9/15/2004	9/15/2004	9/16/2004	9/16/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	**17 [GSI]**	40 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	**13 [GSI]**	40 U	10 U	10 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
4-Methylphenol	5.0 U	**1.3 J #**	5.0 U	5.0 U	5.0 U	20 U	5.0 U	**0.88 J #**
bis(2-Chloroisopropyl) ether	5.0 U	**6.7**	5.0 U	5.0 U	**5.4**	20 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 U	5.0 U	5.0 U
Phenol	20 U	25 U	5.0 U	5.0 U	20 U	20 U	5.0 U	**0.63 J**

See Notes on Page 4.

TABLE 5

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2004
SEMIVOLATILE ORGANIC COMPOUNDS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-108S1	MW98-109S1	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111WT	TW98-108WT	TW98-109WT
Date Sampled:	9/15/2004	9/15/2004	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (ug/L)								
1,2-Dichlorobenzene	10 U	10 U	10 U	10 U	40 U	50 U	10 U	40 U
1,4-Dichlorobenzene	10 U	10 U	10 U	10 U	40 U	50 U	10 U	**4.1 J**
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	**4.5 J**	25 U	5.0 U	20 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	**3.2 J**	25 U	5.0 U	20 U
4-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	20 U	25 U	5.0 U	20 U
bis(2-Chloroisopropyl) ether	**0.92 J**	5.0 U	**1.0 J**	**3.8 J**	**47**	**6.5 J**	**0.98 J**	**4.0 J**
bis(2-Ethylhexyl)phthalate	5.0 U	**1.0 JB**	**1.0 J**	**1.2 J**	6.2 J [IDW]	25 U	11 [IDW]	20 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	88 [GSI]	**5.7 J**	5.0 U	20 U
Phenol	5.0 U	5.0 U	5.0 U	5.0 U	20 U	25 U	5.0 U	20 U

Notes:
Data shown for only those Target Compound List semivolatile organic compounds that were detected in one or more samples.
See Generic Notes pages.

TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID: / Date Sampled: / Sample Type:	MDEQ Criteria Values IDW	GCC	GSI	Site-Specific Background	MW-129WT 9/17/2004 FS	MW-129WT 9/17/2004 DUP	MW-144WT 9/15/2004 FS
Inorganics, Dissolved (ug/L)							
Arsenic	50 {A}	4,300	150 {X}	--	**38**	**37**	**8.3**
Barium	2,000 {A}	1.40E+07	1,800 {G,X}	1,200	**132**	**130**	**110**
Chromium	100 {H}	2.90E+08	11 (Cr VI)	--	2.0 U	2.0 U	**0.24 B**
Copper	1,000 {E}	7.40E+06	27 {G}	--	2.0 U	2.0 U	2.0 U
Iron	300 {E}	5.80E+07	NA	13,000	21,300 J [IDW]	21,300 J [IDW]	14,600 J [IDW]
Lead	4 {L}	ID	41 {G,X}	6	1.0 U	1.0 U	1.0 U
Nickel	100 {A}	7.40E+07	160 {G}	--	**5.5 J**	**5.6 J**	**5.6**
Selenium	50 {A}	9.70E+05	5	--	**2**	**1.4 B**	11 [GSI]
Zinc	5,000 {E}	1.10E+08	360 {G}	2,000	10 U	10 U	10 U
Inorganics, Total (ug/L)				--			
Arsenic	50 {A}	4,300	150 {X}	--	**39**	**38**	**8.3**
Barium	2,000 {A}	1.40E+07	1,800 {G,X}	1,200	**131**	**129**	**111**
Cadmium	5{A}	1.90E+05	5.9 {G,X}	--	0.50 U	0.50 U	0.50 U
Chromium	100 {H}	2.90E+08	11 (Cr VI)	--	**0.27 B**	2.0 U	**0.28 B**
Copper	1,000 {E}	7.40E+06	27 {G}	--	2.0 U	2.0 U	**0.35 B**
Iron	300 {E}	5.80E+07	NA	13,000	21,500 J [IDW]	21,400 J [IDW]	14,600 [IDW]
Lead	4 {L}	ID	41 {G,X}	6	1.0 U	1.0 U	1.0 U
Nickel	100 {A}	7.40E+07	160 {G}	--	**5.4 J**	**5.5 J**	**5.6**
Selenium	50 {A}	9.70E+05	5	--	**2.3**	**1.2 B**	12 [GSI]
Zinc	5,000 {E}	1.10E+08	360 {G}	2,000	**4.1 B**	**4.5 B**	10 U

See Notes on Page 5.

TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID: / Date Sampled: / Sample Type:	MW-144WT 12/21/2004 FS	MW-144WT 9/15/2004 DUP	MW01-118WT 9/16/2004 FS	MW01-119S1 9/16/2004 FS	MW01-119S1 12/22/2004 FS	MW04-118S1 9/16/2004 FS	MW04-119WT 9/16/2004 FS	MW04-119WT 12/22/2004 FS
Inorganics, Dissolved (ug/L)								
Arsenic	--	**8**	**23.2**	**4.6**	--	**3.2**	**4.2**	--
Barium	--	**107**	**93. J**	**1,370 [GSI]**	--	**741 J**	**290**	--
Chromium	--	**0.27 B**	2.0 U	2.0 U	--	2.0 U	2.0 U	--
Copper	--	2.0 U	2.0 U	2.0 U	--	**0.39 B**	2.0 U	--
Iron	--	**14,100 J [IDW]**	**3,540 J**	**3,960 J**	--	**6,600 J**	**15,400 J [IDW]**	--
Lead	--	1.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U	--
Nickel	--	**5.4**	**3.5**	**2.8**	--	**5.2**	**3.1**	--
Selenium	**7.9 [GSI]**	**11 [GSI]**	**1.3 B**	**15.2 [GSI]**	**17.3 [GSI]**	**1.3 B**	**15.3 [GSI]**	**12.9 [GSI]**
Zinc	--	10 U	10. U	**41.1**	--	**20**	**13.6**	
Inorganics, Total (ug/L)								
Arsenic	--	**7.9**	**22**	**4.1**	--	**3.7**	**4.5**	--
Barium	--	**109**	**90.4 J**	**1,340 [GSI]**	--	**920 J**	**307**	--
Cadmium	--	0.50 U	0.50 U	0.50 U	--	0.50 U	0.50 U	--
Chromium	--	**0.26 B**	2.0 U	2.0 U	--	2.0 U	**1.5 B**	--
Copper	--	**0.72 B**	**0.33 B**	**0.37 B**	--	**0.75 B**	**3.9**	--
Iron	--	**14,000 [IDW]**	**3,700 J**	**4,060**	--	**8,880 J**	**16,700 [IDW]**	--
Lead	--	1.0 U	**3.5**	1.0 U	--	**0.24 B**	**2.8**	--
Nickel	--	**5.3**	**3.4**	**2.7**	--	**6.8**	**4**	--
Selenium	**7.8 [GSI]**	**10 [GSI]**	**1.1 B**	**13.8 [GSI]**	**15.9 [GSI]**	2.0 U	**15.5 [GSI]**	**10.6 [GSI]**
Zinc	--	10 U	**5.9 B**	**35.5**	--	**28.4**	**13.6**	--

See Notes on Page 5.

TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-121S1	MW04-121S1	MW04-121WT	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123WT	MW04-123S1	MW04-124S1	MW04-124S1
Date Sampled:	9/16/2004	12/22/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/15/2004	12/21/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)										
Arsenic	6	--	2.9	--	2.5	10.5	6.5	2.9	8	--
Barium	332	--	60.7	--	731	303	129 J	328 J	190 J	--
Chromium	0.31 B	--	2.0 U	--	0.37 B	0.62 B	2.0 U	2.0 U	2.0 U	--
Copper	2.0 U	--	2.0 U	--	0.63 B	0.66 B	0.34 B	0.59 B	0.33 B	--
Iron	8,900 J	--	1,850 J	--	14,200 J [IDW]	4,990 J	5,760 J	6,540 J	7,530 J	--
Lead	1.0 U	--	1.0 U	--	0.29 B	1.0 U	1.0 U	1.0 U	1.0 U	--
Nickel	9.8	--	1.8 B	--	6	5	4.1	5.2	4.9	--
Selenium	16.8 [GSI]	20.2 [GSI]	8.3 [GSI]	10.9 [GSI]	2.0 U	2.0 U	1.3 B	1.5 B	7.3 [GSI]	3.5
Zinc	9.4 B	--	10. U	--	26.8	7.4 B	9.2 B	14.6	14.1	--
Inorganics, Total (ug/L)										
Arsenic	6.3	--	3	--	2.5	11.6	6.5	3.3	8.1	--
Barium	353	--	60.3	--	771	315	132 J	356 J	198 J	--
Cadmium	0.50 U	--	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--
Chromium	0.57 B	--	2.0 U	--	0.76 B	0.96 B	2.0 U	2.0 U	2.0 U	--
Copper	0.48 B	--	2.0 U	--	0.73 B	1.5 B	0.59 B	0.71 B	2.0 U	--
Iron	9,510	--	2,040	--	15,300 [IDW]	5,360	5,780 J	8,000 J	7,830 J	--
Lead	0.30 B	--	1.0 U	--	1.3	0.49 B	1.0 U	0.39 B	1.0 U	--
Nickel	10.3	--	1.8 B	--	6.5	5.1	4	5.6	5.1	--
Selenium	17.1 [GSI]	16.2 [GSI]	8.2 [GSI]	8.8 [GSI]	2.0 U	0.95 B	2.3	0.90 B	6.3 [GSI]	3.3
Zinc	13.8	--	10. U	--	26.4	8.5 B	9.2 B	10.6	7.7 B	--

See Notes on Page 5.

TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-124WT	MW04-124WT	MW97-104S1	MW97-104WT	MW97-105S1	MW97-105S1	MW97-105WT	MW97-105WT	MW98-108S1	MW98-109S1
Date Sampled:	9/15/2004	12/21/2004	9/16/2004	9/16/2004	9/15/2004	12/21/2004	9/15/2004	12/21/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)										
Arsenic	**8.1 J**	--	**0.56 B**	**0.72 J**	**4.5**	--	**9.3**	--	**0.99 B**	**1.3 B**
Barium	**228**	--	**785 J**	**662**	**256**	--	**599**	--	**229 J**	**325 J**
Chromium	2.0 U	--	2.0 U	2.0 U	**0.60 B**	--	**0.71 B**	--	2.0 U	2.0 U
Copper	2.0 UJ	--	**0.29 B**	2.0 UJ	**0.32 BJ**	--	2.0 U	--	2.0 U	2.0 U
Iron	**13,300 J [IDW]**	--	**7,480 J**	**1,950 J**	**7,350 J**	--	**16,200 J [IDW]**	--	**9,180 J**	**5,050 J**
Lead	1.0 U	--	1.0 U	1.0 U	1.0 U	--	1.0 U	--	1.0 U	1.0 U
Nickel	**6.5**	--	**4.4**	**2.2**	**11.8 J**	--	**11.6 J**	--	**5**	**3.7**
Selenium	**9.7 [GSI]**	**5.5 [GSI]**	**1.1 B**	**1.8 B**	**13.6 [GSI]**	**9.8 [GSI]**	**13.7 [GSI]**	**7.0 [GSI]**	**1.8 B**	**1.0 B**
Zinc	**7.2 J**	--	**21.6**	**17.8 J**	**6.1 B**	--	**14.5**	--	10. U	**5.7 B**
Inorganics, Total (ug/L)										
Arsenic	**7.9 J**	--	**0.83 B**	**0.72 B**	**4.5**	--	**8.8**	--	**0.98 B**	**1.6 B**
Barium	**229**	--	**821 J**	**675**	**264**	--	**559**	--	**220 J**	**321 J**
Cadmium	0.50 U	--	0.50 U	0.50 U	0.50 U	--	0.50 U	--	0.50 U	0.50 U
Chromium	**0.19 B**	--	2.0 U	2.0 U	**0.89 B**	--	**0.90 B**	--	2.0 U	2.0 U
Copper	**0.32 J**	--	**0.33 B**	2.0 UJ	**0.48 BJ**	--	**1.1 BJ**	--	2.0 U	2.0 U
Iron	**12,900**	--	**8,140 J**	**2,120**	**7,610 J**	--	**16,300 J [IDW]**	--	**10,100 J**	**5,010 J**
Lead	1.0 U	--	1.0 U	1.0 U	1.0 U	--	**1**	--	1.0 U	1.0 U
Nickel	**6.5**	--	**4.6**	**2.3**	**12.1 J**	--	**11.7 J**	--	**4.9**	**3.4**
Selenium	**9.7 [GSI]**	**5.1 [GSI]**	**2.1**	**2.3**	**13.6 [GSI]**	**9.4 [GSI]**	**11.6 [GSI]**	**8.0 [GSI]**	**1.5 B**	**1.4 B**
Zinc	**16.7 J**	--	**19.4**	**16.9 J**	**12.8**	--	**26.3**	--	10. U	**5.5 B**

See Notes on Page 5.

TABLE 6

GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER AND DECEMBER 2004
INORGANIC CONSTITUENTS

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111WT	TW98-108WT	TW98-109WT
Date Sampled:	9/17/2004	9/17/2004	9/17/2004	9/17/2004	9/15/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved (ug/L)						
Arsenic	**3.6**	**2.8**	**0.89 B**	**1.3 B**	**3.3**	**1.3 B**
Barium	**266**	**291**	**4,920 [IDW, GSI]**	**686**	**489 J**	**467 J**
Chromium	2.0 U	2.0 U	**0.75 B**	**0.18 B**	2.0 U	**0.31 B**
Copper	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron	**5,170 J**	**4,030 J**	**39,400 J [IDW]**	**761 J**	**2,660 J**	**1,420 J**
Lead	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nickel	**3.6 J**	**4.3 J**	**3.9 J**	**4.3 J**	**1.4 B**	**2.4**
Selenium	**4.8**	**1.7 B**	2.0 U	**0.90 B**	**1.2 B**	**2.9**
Zinc	**5.0 B**	**8.6 B**	**135**	**17.6**	**18.2**	**13.8**
Inorganics, Total (ug/L)						
Arsenic	**3.6**	**2.8**	**1.6 B**	**3.4**	**3.4**	**1.5 B**
Barium	**282**	**272**	**4,740 [IDW, GSI]**	**709**	**511 J**	**469 J**
Cadmium	0.50 U	**0.080 B**	0.50 U	0.50 U	0.50 U	0.50 U
Chromium	2.0 U	**0.84 B**	**0.87 B**	**1.3 B**	2.0 U	**0.62 B**
Copper	2.0 U	2.0 U	2.0 U	**4.0 J**	2.0 U	2.0 U
Iron	**5,520 J**	**3,900 J**	**38,000 J [IDW]**	**1,180 J**	**2,710 J**	**1,530 J**
Lead	1.0 U	1.0 U	1.0 U	**0.59 B**	1.0 U	1.0 U
Nickel	**4.0 J**	**4.2 J**	**3.4 J**	**4.5 J**	**1.4 B**	**2.3**
Selenium	**4.8**	**2.1**	**1.4 B**	**1.9 B**	**1.3 B**	**3.3**
Zinc	**6.0 B**	**14**	**116**	**17.6**	**13.4**	**12.3**

Notes:
Data shown for only those inorganic analytes detected in one or more sample(s).
Analyses were also completed for cadmium, silver, and mercury.
GSI criteria were calculated using a hardness of 370 mg/CaCO3/L.
See Generic Notes pages.

TABLE 7

SURFACE WATER ANALYTICAL RESULTS - SEPTEMBER 2004

REALM INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	Rule 57 Water Quality Values				SW04-01
Date Sampled:					9/17/2004
Sample Type:	HNDV	WV	FCV	AMV	FS
Volatile Organic Compounds (ug/L)					
1,1-Dichloroethane	62,000	NA	740	6,600	1.0 U
1,2-Dichloroethene, Total	--	--	--	--	2.0 U
cis-1,2-Dichloroethene	ID	NA	620	5,500	1.0 U
trans-1,2-Dichloroethene	ID	NA	1,500	14,000	1.0 U
2-Butanone	3.8E+06	NA	2,200	20,000	**1.5 J**
Acetone	4.5E+05	NA	1,700	15,000	**7.3 J**
Benzene	510	NA	200	890	1.0 U
Chlorobenzene	3,200	NA	47	420	**0.21 J**
Chloroethane	2.7E+07	NA	1,100	10,000	1.0 U
Ethylbenzene	8,900	NA	18	160	1.0 U
Toluene	51,000	NA	140	840	**0.19 J**
trans-1,3-Dichloropropene	NA	NA	1,500	14,000	1.0 U
Trichloroethene	550	NA	200	1,800	1.0 U
Vinyl chloride	4,400	NA	930	8,400	1.0 U
Xylenes, Total	83,000	NA	35	310	2.0 U
Semivolatile Organic Compounds (ug/L)					
1,2-Dichlorobenzene	11,000	NA	13	120	10 U
1,4-Dichlorobenzene	11,000	NA	16	100	10 U
2,4-Dimethylphenol	8,700	NA	19	130	5.0 U
2-Methylnaphthalene	1,000	NA	ID	ID	5.0 U
4-Methylphenol	45,000	NA	25	230	5.0 U
bis(2-Chloroisopropyl) ether	47,000	NA	ID	ID	5.0 U
bis(2-Ethylhexyl)phthalate	160	NA	ID	285	**0.57 J**
Naphthalene	1,200	NA	13	100	5.0 U
Phenol	1,200	NA	46	290	5.0 U
Inorganics, Total (ug/L)					
Arsenic	280	NA	150	340	**10.2**
Barium	1.6E+05	NA	1,800	5,000	**1,290**
Cadmium	130	NA	5.9	18	**0.20 B**
Chromium	9,400	NA	11 (Cr VI)	16 (Cr VI)	**6**
Copper	64,000	NA	27	46	**18.3 J**
Iron	--	--	--	--	**26,300 J**
Lead	190	NA	41	370	**12.4**
Nickel	2.1E+05	NA	160	1,400	**11. J**
Selenium	2,700	NA	5	62	**9.1 [FCV]**
Zinc	22,000	NA	360	355	**124**
Miscellaneous Parameters					
Hardness, Total (mg/$CaCO_3$/L)					**370**
pH (S.U.)					**8**

Notes:
The surface water sample was analyzed for TCL VOCs, SVOCs, and the 13 inorganics of interest.
Data are shown for those analytes detected in the surface water sample or in one or more of the groundwater samples.
See Generic Notes Pages.

GENERIC NOTES

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

General Notes:

All concentrations in micrograms per liter (ug/L); equivalent to parts per billion (ppb), unless otherwise noted.
Detections are shown in bold, and concentrations above the relevant criteria are shaded.
-- = Sample was not analyzed for the listed constituent.
REALM, INC. = Remediation and Liability Management Company, Inc.

Generic MDEQ Criteria Values, updated December 2004:
- IDW = Industrial Drinking Water Criteria.
- GSI = Groundwater Surface Water Interface Criteria.
- IGVIA = Industrial & Commercial II, III, & IV Groundwater Volatilization to Indoor Air Inhalation Criteria.
- GCC = Groundwater Contact Criteria.
- FESL = Flammability and Explosivity Screening Levels.
- FAV = Rule 57 Surface Water Final Acute Value.
- HNDV = Rule 57 Surface Water Human Non-Drinking Water Value
- WV = Rule 57 Surface Water Wildlife Value
- FCV = Rule 57 Surface Water Final Chronic Value
- AMV = Rule 57 Surface Water Aquatic Maximum Value

Location ID:
- MW = Permanent monitoring wells (Note: 97 indicates the well was installed in 1997, 04 indicates the well was installed in 1998).
- TW = Temporary monitoring wells (Note: 97 indicates the well was installed in 1997, 98 indicates the well was installed in 1998).
- WT = Water table monitoring wells.
- S1 = Well screened at base of sand unit.
- SW = Surface water sampling location.

Sample Type:
- FS = Primary field sample.
- DUP = Duplicate field sample.

Data Qualifiers:

SVOCs[1] = Samples collected during the May 2000 sampling event had select SVOC compounds analyzed under the VOC scan (8260).
- B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect. (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
- D = Concentration is based on a diluted sample analysis.
- E = The compound was quantitated above the calibration range.
- J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
- M = Matrix interference.
- ND = Not detected.
- U = The compound/constituent was analyzed for but not detected. The associated value is the compound/constituent quantitation limit.
- UJ = The compound/constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- # = This value represents a probable combination of 3-methylphenol and 4-methylphenol.

MDEQ Criteria Qualifiers:

{A} Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.

{B} Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

{C} Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than Csat. Concentrations greater than Csat are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.

{D} Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

{E} Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value provided in the following table:

Hazardous Substance	CAS #	Residential Health-Based DWC	Industrial-Commercial Health-Based DWC
Aluminum	7429905	300	4,100
tertiary Amyl methyl ether	994058	910	2,600
Copper	7440508	1,400	4,000
Diethyl ether	60297	3,700	10,000
Ethylbenzene	100414	700	700
Iron	7439896	2,000	5,600
Manganese	7439965	860	2,500
Methyl-tert-butyl ether (MTBE)	1634044	240	690
Toluene	108883	1,000	1,000
1,2,4-Trimethylbenzene	95636	1,000	2,900
1,3,5-Trimethylbenzene	108678	1,000	2,900
Xylenes	1330207	10,000	10,000

{F} Criterion is based on adverse impacts to plant life and phytotoxicity.

{G} Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg CaCO3/L, use 400 mg CaCO3/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

MDEQ Criteria Qualifiers (Cont'd.):

Hazardous Substance	FCV Formula ug/L	FCV Conversion Factor (CF)	WV ug/L	HNDV ug/L
Acetate	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.30E+06
Barium [X]	EXP(1.0629*(LnH)+1.1869)	NA	NA	1.60E+05
Beryllium	EXP(2.5279*(LnH)-10.7689)	NA	NA	1,200
Cadmium [X]	(EXP(0.7852*(LnH)-2.715))*CF	1.101672-((LnH)*(0.041838))	NA	130
Chromium (III) [X]	(EXP(0.819*(LnH)+0.6848))*CF	0.86	NA	9,400
Copper	(EXP(0.8545*(LnH)-1.702)) *CF	0.96	NA	64,000
Lead [X]	(EXP(1.273*(LnH)-3.296))*CF	1.46203-((LnH)*(0.14571))	NA	190
Manganese	EXP(0.8784*(LnH)+3.5199)	NA	NA	59,000
Nickel	(EXP(0.846*(LnH)+0.0584))*CF	0.997	NA	2.10E+05
Pentachlorophenol	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	22,000

Where,

EXP(x) = The base of the natural logarithm raised to power x (e^x).
LnH = The natural logarithm of water hardness in mg $CaCO_3$/L.
* = The multiplication symbol.
[X] = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote (X) for further guidance.

A spreadsheet that may be used to calculate GSI and GSI protection criteria for (G)-footnoted hazardous substances is available on the Department of Environmental Quality (DEQ) internet web site.

{H} Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

{I} Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, Remediation and Redevelopment Division (RRD), 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{J} Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

{K} Hazardous substance may be flammable or explosive, or both.

{L} Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable combinations of site-specific soil and drinking water concentrations are presented in the following table:

Drinking Water Concentration	Soil Concentration
5	386-395
6	376-385
7	376-385
8	366-375
9	356-365
10	346-355
11	336-345
12	336-345
13	326-335
14	316-325
15	306-315

{M} Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

{N} The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

{O} The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.5714 to R 299.5726. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.

{P} Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

{Q} Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

{R} Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{S} Criterion defaults to the hazardous substance-specific water solubility limit.

{T} Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

MDEQ Criteria Qualifiers (Cont'd.):

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential & Commercial I	1,000 ppb, or 10,000 ppb if capped	4,000 ppb
Industrial & Commercial II	1,000 ppb, or 10,000 ppb if capped	16,000 ppb
Commercial III	1,000 ppb, or 10,000 ppb if capped	33,000 ppb
Commercial IV	1,000 ppb, or 10,000 ppb if capped	22,000 ppb

{U} Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{V} Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

{W} Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

{X} The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria for HDV (ug/kg)
Acrylonitrile	107131	2.0 (M); 0.87	100 (M); 17
Alachlor	15972608	3.5	91
Antimony	7440360	2	1,400
Arsenic	7440382	50	23,000
Atrazine	1912249	4.3	86
Barium	7440393	1,900*	*
Benzene	71432	12	240
bis(2-Chloroethyl)ether	111444	1 (M); 0.79	100 (M); 20
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.00E+06
Chloroform	67663	77	1,500
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2 (M); 0.93	200 (M); 40
3,3'-Dichlorobenzidine	91941	0.3 (M); 0.14	2,000 (M); 7.7
1,2-Dichloroethane	107062	6	120
1,1-Dichloroethylene	75354	24	480
1,2-Dichloropropane	78875	9.1	180
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.05 (M); 0.006	20 (M); 1.0
Ethylene glycol	107211	56,000	1.10E+06
Heptachlor	76448	0.01 (M); 0.0017	NLL
beta-Hexachlorocyclohexane	319857	0.024	20 (M)
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.60E+05
Lead	7439921	14*	*
Manganese	7439965	3600	72,000
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Mirex	2385855	0.02 (M); 1.6E-5	NLL
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,1,2-Tetrachloroethane	630206	19	380
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	2,300
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580

{Y} Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion.

MDEQ Criteria Qualifiers (Cont'd.):

Source Size sq. feet or acres	Modifier
400 sq feet	3.17
1000 sq feet	2.2
2000 sq feet	1.76
1/4 acre	1.15
1/2 acre	1
1 acre	0.87
2 acre	0.77
5 acre	0.66
10 acre	0.6
32 acre	0.5
100 acre	0.43

{Z} Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

{AA} Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

{BB} The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.

{CC} Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH_3 in Aqueous Ammonia Solutions for 0-30 °C and pH 6-10

Temp (°F)	Temp (°C)	pH 6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

The generic approach for estimating NH3 assumes a default pH of 8 and default temperatures of 68 F and 85 F for cold water and warm water surface water, respectively. The resulting percent NH3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH3-N) concentration in the groundwater and the resulting NH3 concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

MDEQ Criteria Qualifiers (Cont'd.):

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

{DD} Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.

{EE} The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a
Total dissolved solids (TDS)	5.00E+05	If TDS data are not available, the TDS criterion may Calcium, Chlorides, Iron, Magnesium, Potassium, Sodium, Sulfate.
Dissolved Oxygen (DO):	≥ 7,000	Since a low level of DO can be harmful to aquatic

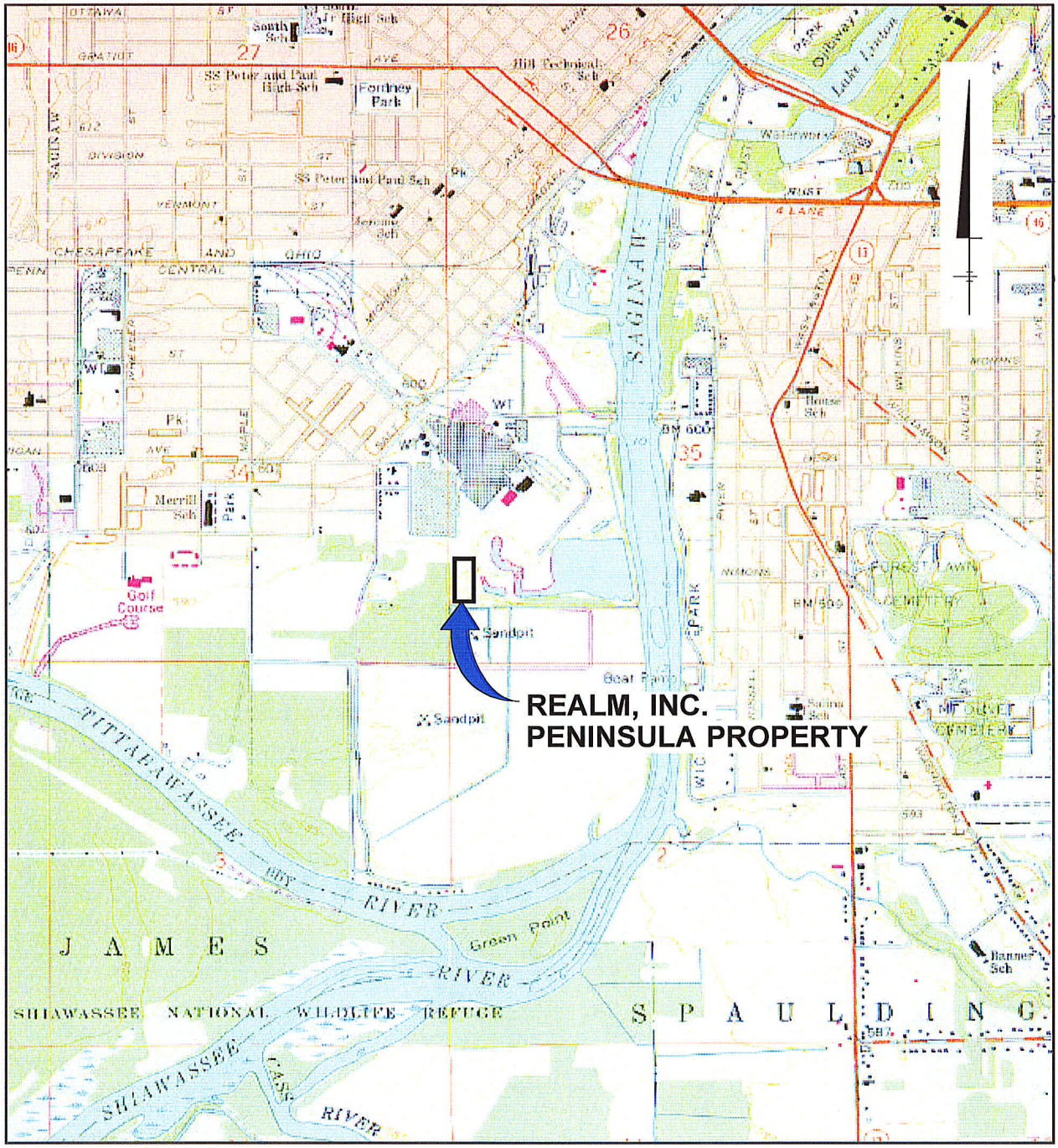
{FF} The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

{GG} Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m3.

ID = Insufficient data to develop criterion.
NA = A criterion or value is not available or, in the case of background and CAS numbers, not applicable.
NLL = Hazardous substance is not likely to leach under most soil conditions.
NLV = Hazardous substance is not likely to volatilize under most conditions.

Figures

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engineers, scientists, economists



NOTES:

1. Base map source: USGS 7.5 Min. Topo. Quad., Saginaw, Mich. (1967, Photorevised 1973).
2. Locations of Green Point Landfill and Drum Remediation Area are approximate.
3. All property boundary lines are approximate.

2,000 0 2,000

APPROX. SCALE 1" = 2,000 Feet



Area Enlargement

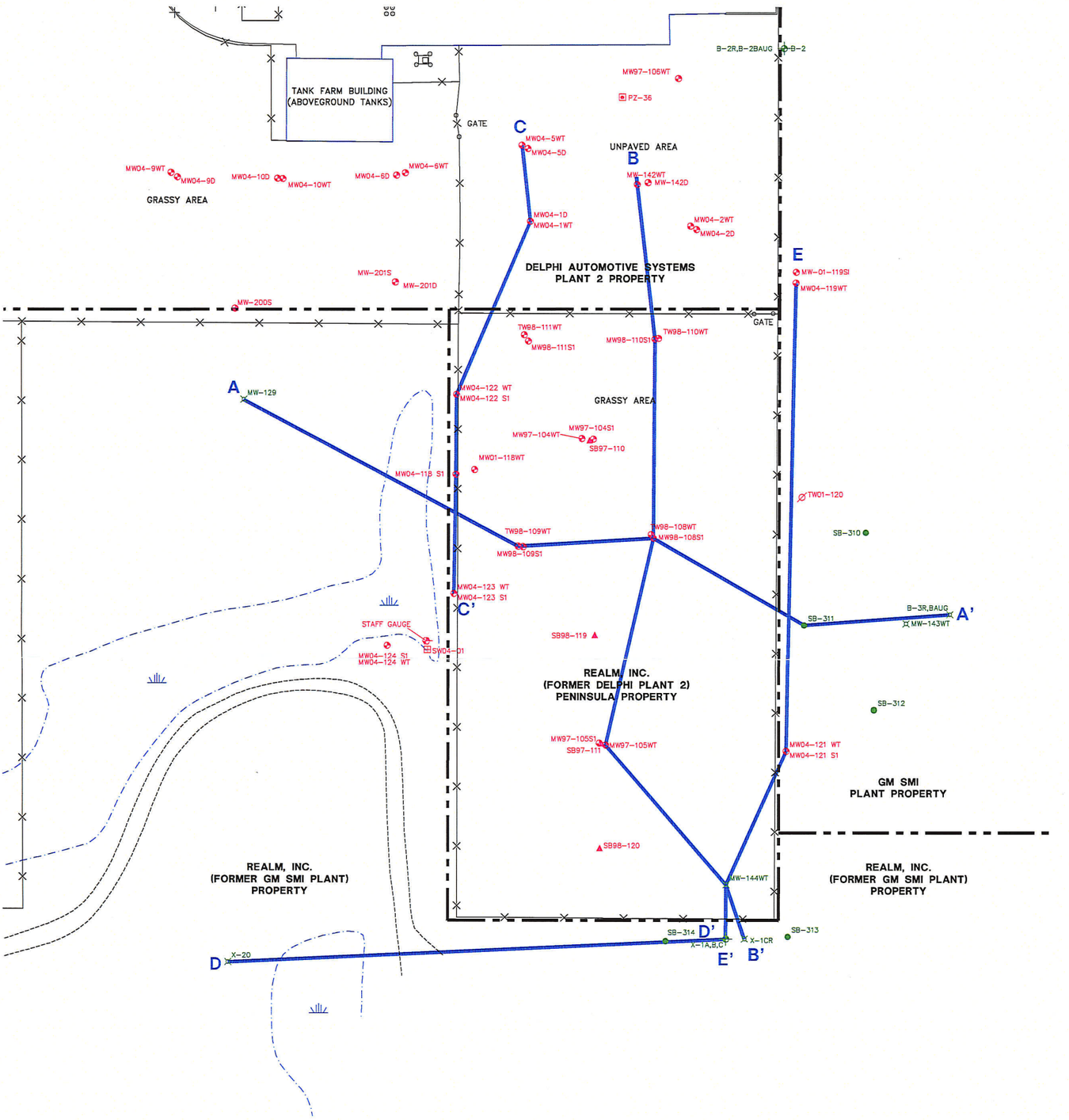
06/19/02 SYR-D54-DJH
86991001/86991n01.CDR

REALM, INC. PENINSULA PROPERTY
SAGINAW, MICHIGAN

SITE LOCATION MAP

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FIGURE 1



LEGEND:

- PROPERTY BOUNDARY
- FENCE LINE
- SURFACE WATER SAMPLE COLLECTION LOCATION
- A—A' CROSS-SECTION LOCATION

GM SMI PLANT PROPERTY RI AND OTHER COMPLETIONS:

- B-2 WATER TABLE MONITORING WELL
- X-1A,B,C MONITORING WELL CLUSTER
- SB-312 SOIL BORINGS

DELPHI PLANT 2 AND PENINSULA PROPERTY RI AND OTHER COMPLETIONS:

- MW-142D MONITORING WELL
- TW98-108WT TEMPORARY WELL
- SB98-120 SOIL BORING
- PZ-36 PIEZOMETER
- TW01-120 GRAB GROUNDWATER SAMPLING LOCATION

NOTES:

1. BASE MAP DEVELOPED FROM THE FOLLOWING: PHOTOGRAMMETRIC BASE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK., AERIAL PHOTOGRAPHY CONDUCTED ON 11/11/94; AND BASE MAP SUPPLIED BY AIR-LAND SURVEYS, INC., AERIAL PHOTOGRAPHY WAS CONDUCTED DURING 11/90.
2. SOME SAMPLE LOCATIONS ARE APPROXIMATE.

0 50' 100'
GRAPHIC SCALE

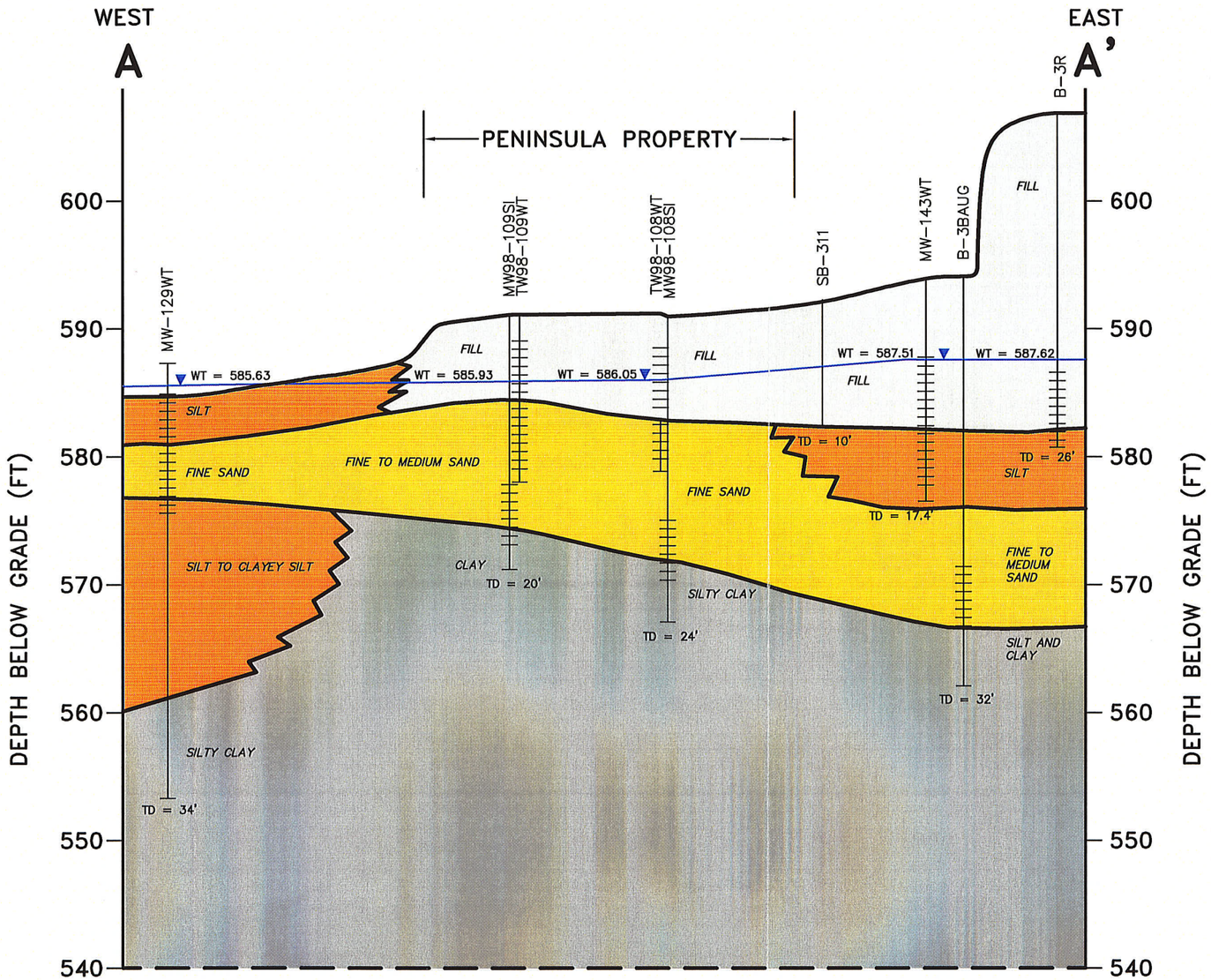
REALM, INC.
PENINSULA PROPERTY
SAGINAW, MICHIGAN

CROSS-SECTION LOCATION MAP

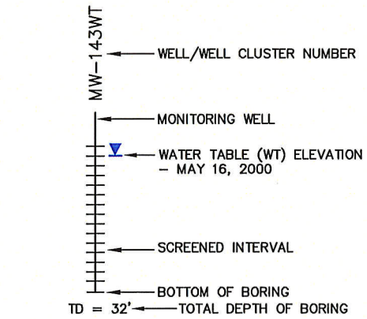
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FIGURE 2

X: 86991X01.DWG
L: ON=*, OFF=REF
P: PAGESET/SYR-DP
8/8/05 SYR-BS-GHS LAF GMS
86991005/GW/86991B01.DWG



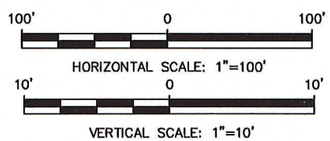
LEGEND



FILL
SAND
SILT
CLAY

NOTES:

1. LITHOLOGIES DEPICTED ARE THOSE DESCRIBED IN SUBSURFACE LOGS PREPARED BY BLASLAND, BOUCK & LEE, INC., (1994,1995,1997).
2. ELEVATIONS RELATIVE TO NGVD OF 1929.
3. SURFACE TOPOGRAPHY FROM SITE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, N.Y., BASED ON 11/11/94 AERIAL PHOTOGRAPHY.



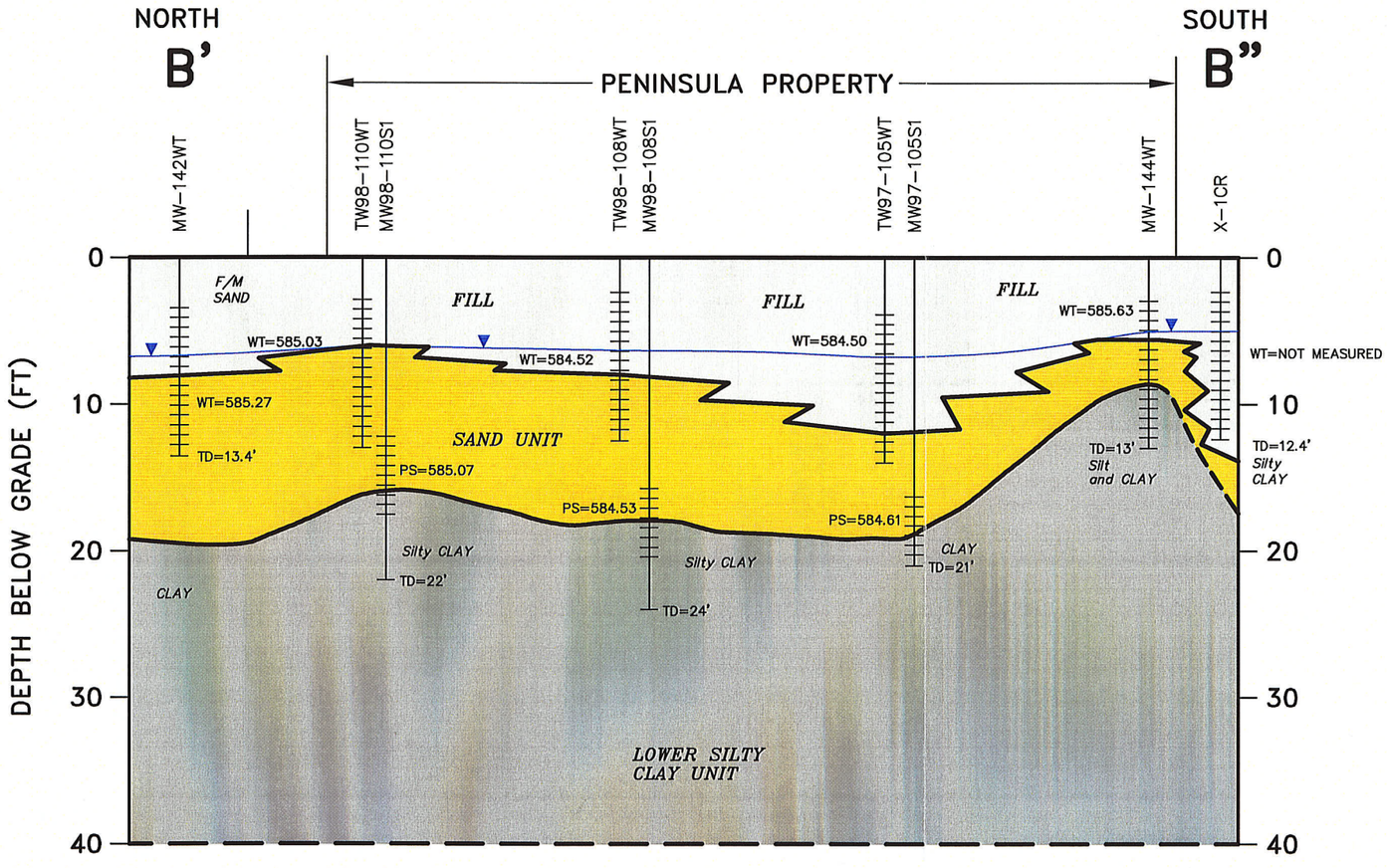
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PENNINSULA PROPERTY
SAGINAW, MICHIGAN

GEOLOGIC CROSS-SECTION A-A'

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FIGURE 3

L: ON=*, OFF=REF
P: PAGESET/SYR-BL
8/8/05 SYR-B5-RCA PGL GMS
86991005/86991V12.DWG



LEGEND

- X-1CR ← WELL/WELL CLUSTER NUMBER
- ← MONITORING WELL
- ← WATER TABLE (NOV. 5–6, 1998)
- ← SCREENED INTERVAL
- ← BOTTOM OF BORING
- TD = 12.4' ← TOTAL DEPTH OF BORING
- FILL
- SAND
- CLAY

NOTES:

1. LITHOLOGIES DEPICTED ARE THOSE DESCRIBED IN SUBSURFACE LOGS PREPARED BY BLASLAND, BOUCK & LEE, INC. (1994,1995,1997) SERVICES, INC.
2. WATER LEVEL DATA COLLECTED BY BLASLAND, BOUCK, & LEE, INC. AS PART OF A PLANT 2 SITE–WIDE GAUGING EVENT.
3. A ZERO DEPTH BELOW GRADE USED IN THIS FIGURE IS APPROXIMATELY 592.5 FT. AMSL.
4. WT = WATER TABLE ELEVATION (FT. AMSL)
   PS = POTENTIOMETRIC SURFACE ELEVATION (FT. AMSL)
5. FILL CONSISTS OF LIGHT BROWN SAND, SILT AND CLAY, SOME CONCRETE, GLASS, WIRE, WITH TRACE GRAVEL, PEBBLES AND SLAG, AND TO THE SOUTH AT X–1, FOUNDRY SAND, SLAG, CINDERS, METAL, WOOD AND "MISCELLANEOUS ORGANICS" (ASSOCIATED WITH THE GREENPOINT LANDFILL).

100' 0 100'

HORIZONTAL SCALE: 1"=100'

10' 0 10'

VERTICAL SCALE: 1"=10'

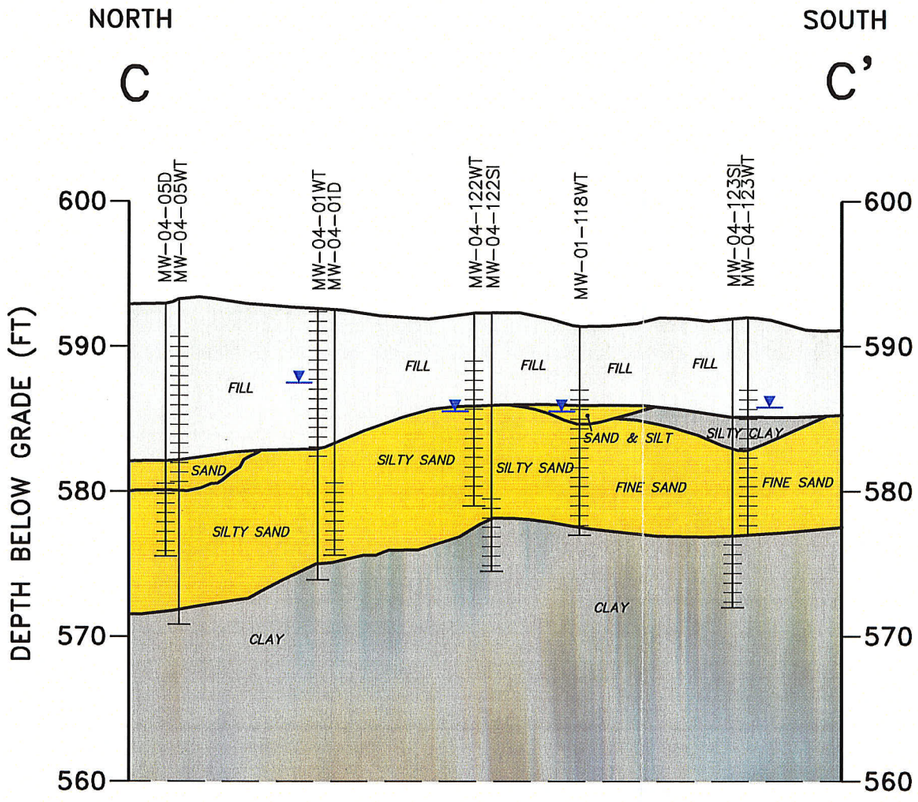
REALM, INC.
PENNINSULA PROPERTY
SAGINAW, MICHIGAN

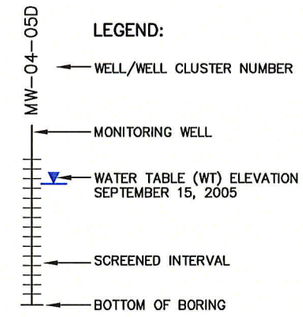
GEOLOGIC CROSS-SECTION B-B'

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FIGURE 4

L: ON=*, OFF=REF
P: PAGESET/SYR-BL
8/8/05 SYR-85-RCA PGL GMS
86991005/86991V13.DWG





NOTES:

1. LITHOLOGIES DEPICTED ARE THOSE DESCRIBED IN SUBSURFACE LOGS PREPARED BY BLASLAND, BOUCK & LEE, INC.
2. WATER LEVEL MEASUREMENTS COLLECTED BY BBL; ELEVATIONS CALCULATED BASED ON DELPHI SURVEY DATA.
3. WT = WATER TABLE ELEVATION (FT. AMSL)
4. FILL CONSISTS OF LIGHT BROWN SAND, SILT AND CLAY, SOME CONCRETE, GLASS, WIRE, WITH TRACE GRAVEL, PEBBLES AND SLAG, AND TO THE SOUTH AT X-1, FOUNDRY SAND, SLAG, CINDERS, METAL, WOOD AND "MISCELLANEOUS ORGANICS" (ASSOCIATED WITH THE GREENPOINT LANDFILL).
5. SURFACE TOPOGRAPHY FROM SITE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, N.Y., BASED ON 11/11/94 AERIAL PHOTOGRAPHY.



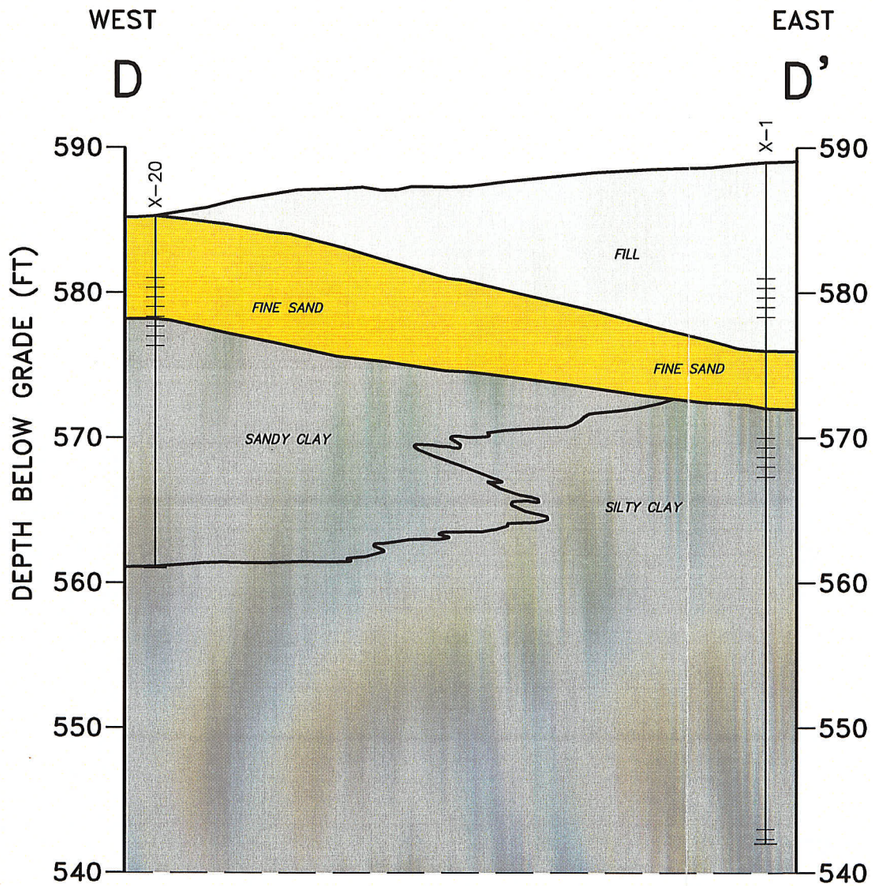
REALM, INC.
PENINSULA PROPERTY
SAGINAW, MICHIGAN

GEOLOGIC CROSS-SECTION C-C'

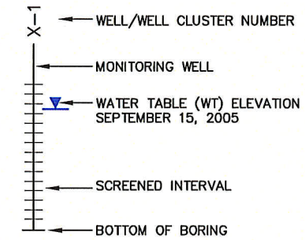
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FIGURE 5

L: ON=*, OFF=REF*
P: PAGESET/SYR-BL
8/8/05 SYR-54-PGL RCA GMS
86991005/86991V09.DWG



LEGEND:



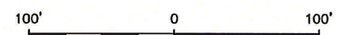
FILL

SAND

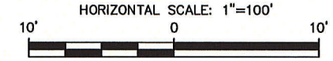
CLAY

NOTES:

1. LITHOLOGIES DEPICTED ARE THOSE DESCRIBED IN SUBSURFACE LOGS PREPARED BY BLASLAND, BOUCK & LEE, INC.
2. FILL CONSISTS OF LIGHT BROWN SAND, SILT AND CLAY, SOME CONCRETE, GLASS, WIRE, WITH TRACE GRAVEL, PEBBLES AND SLAG, AND TO THE SOUTH AT X-1, FOUNDRY SAND, SLAG, CINDERS, METAL, WOOD AND "MISCELLANEOUS ORGANICS" (ASSOCIATED WITH THE GREENPOINT LANDFILL).
3. SURFACE TOPOGRAPHY FROM SITE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, N.Y., BASED ON 11/11/94 AERIAL PHOTOGRAPHY.



HORIZONTAL SCALE: 1"=100'



VERTICAL SCALE: 1"=10'

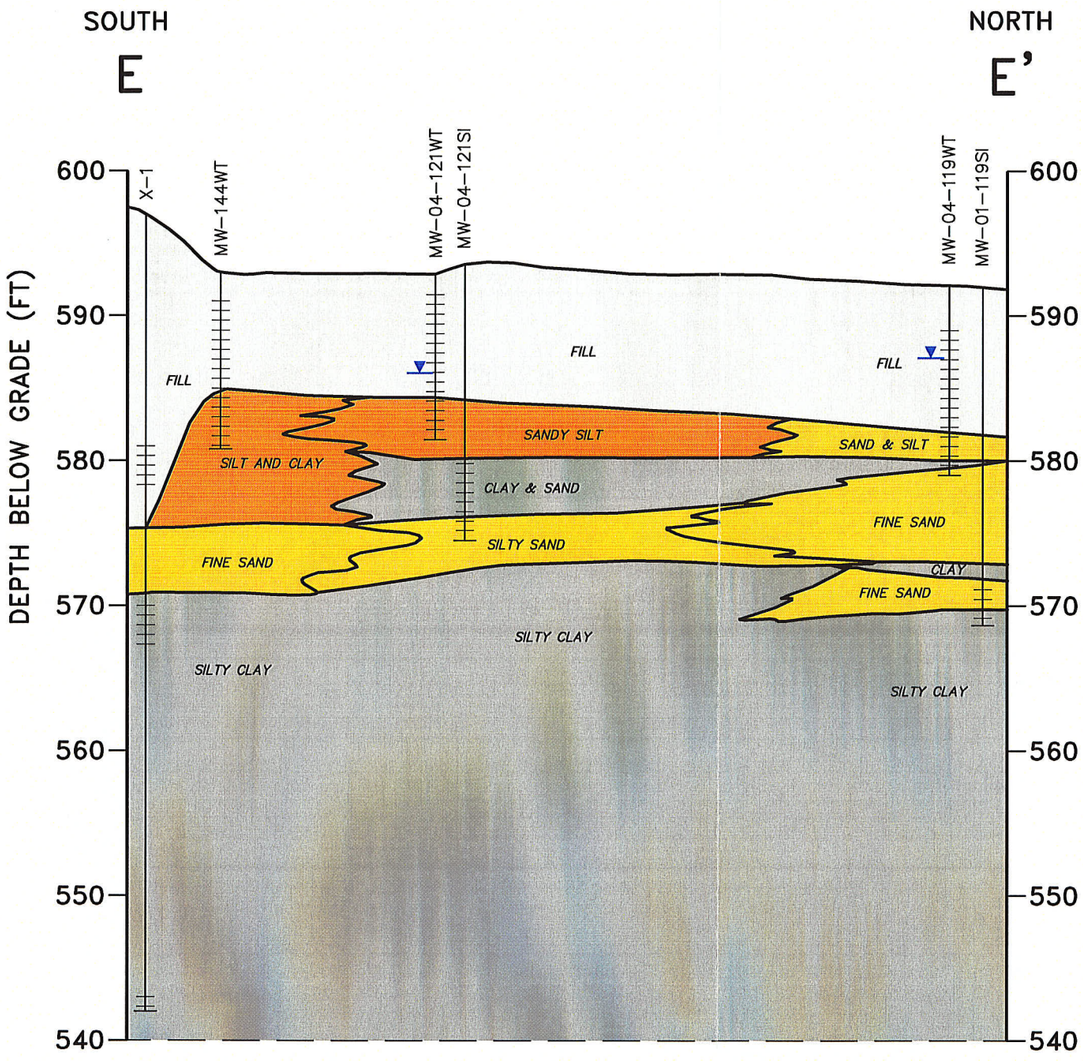
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SAGINAW, MICHIGAN

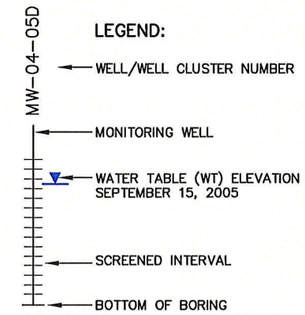
GEOLOGIC CROSS-SECTION D-D'

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FIGURE
6

L: ON=*, OFF=REF*
P: PAGESET/SYR-BL
8/8/05 SYR-B5-GJD RCA GMS
86991005/86991V11.DWG





NOTES:

1. LITHOLOGIES DEPICTED ARE THOSE DESCRIBED IN SUBSURFACE LOGS PREPARED BY BLASLAND, BOUCK & LEE, INC.
2. WATER LEVEL MEASUREMENTS COLLECTED BY BBL; ELEVATIONS CALCULATED BASED ON DELPHI SURVEY DATA.
3. WT = WATER TABLE ELEVATION (FT. AMSL)
4. FILL CONSISTS OF LIGHT BROWN SAND, SILT AND CLAY, SOME CONCRETE, GLASS, WIRE, WITH TRACE GRAVEL, PEBBLES AND SLAG, AND TO THE SOUTH AT X-1, FOUNDRY SAND, SLAG, CINDERS, METAL, WOOD AND "MISCELLANEOUS ORGANICS" (ASSOCIATED WITH THE GREENPOINT LANDFILL).
5. SURFACE TOPOGRAPHY FROM SITE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, N.Y., BASED ON 11/11/94 AERIAL PHOTOGRAPHY.

100' 0 100'

HORIZONTAL SCALE: 1"=100'

10' 0 10'

VERTICAL SCALE: 1"=10'

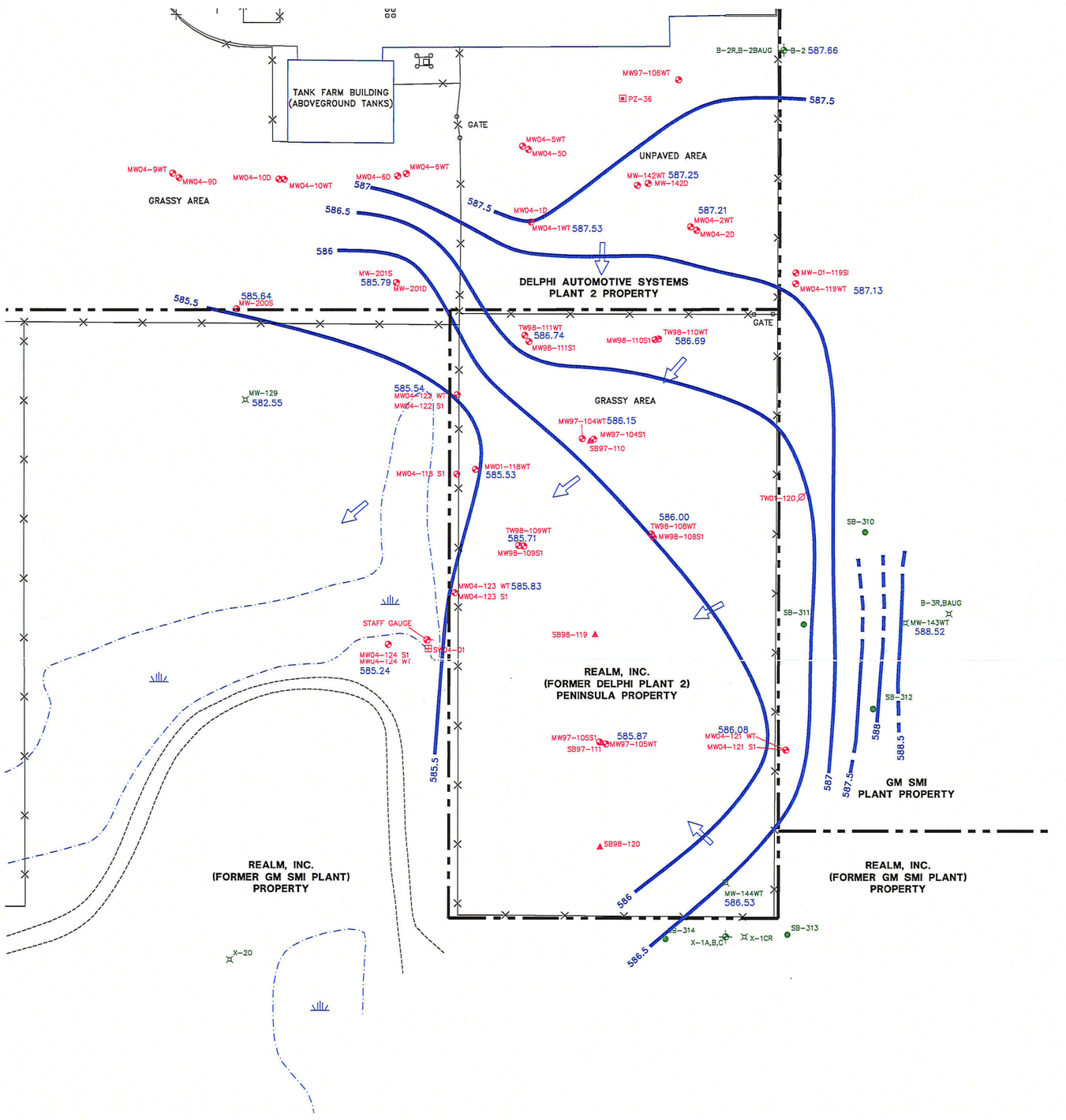
REALM, INC.
PENINSULA PROPERTY
SAGINAW, MICHIGAN

GEOLOGIC CROSS-SECTION E-E'

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FIGURE 7

L: ON=*, OFF=REF*
P: PAGESET/SYR-BL
8/8/05 SYR-B5-GJD RCA GMS
86991005/86991V10.DWG



LEGEND:

- PROPERTY BOUNDARY
- FENCE LINE
- SURFACE WATER SAMPLE COLLECTION LOCATION
- 586 GROUNDWATER CONTOUR
- 586.53 GROUNDWATER ELEVATION
- GENERAL GROUNDWATER FLOW DIRECTION

GM SMI PLANT PROPERTY RI AND OTHER COMPLETIONS:

- B-2 WATER TABLE MONITORING WELL
- X-1A,B,C MONITORING WELL CLUSTER
- SB-312 SOIL BORINGS

DELPHI PLANT 2 AND PENINSULA PROPERTY RI AND OTHER COMPLETIONS:

- MW-142D MONITORING WELL
- TW98-108WT TEMPORARY WELL
- SB98-120 SOIL BORING
- PZ-36 PIEZOMETER
- TW01-120 GRAB GROUNDWATER SAMPLING LOCATION

NOTES:

1. BASE MAP DEVELOPED FROM THE FOLLOWING: PHOTOGRAMMETRIC BASE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK., AERIAL PHOTOGRAPHY CONDUCTED ON 11/11/94; AND BASE MAP SUPPLIED BY AIR-LAND SURVEYS, INC., AERIAL PHOTOGRAPHY WAS CONDUCTED DURING 11/90.
2. SOME SAMPLE LOCATIONS ARE APPROXIMATE.

0 50' 100'
GRAPHIC SCALE

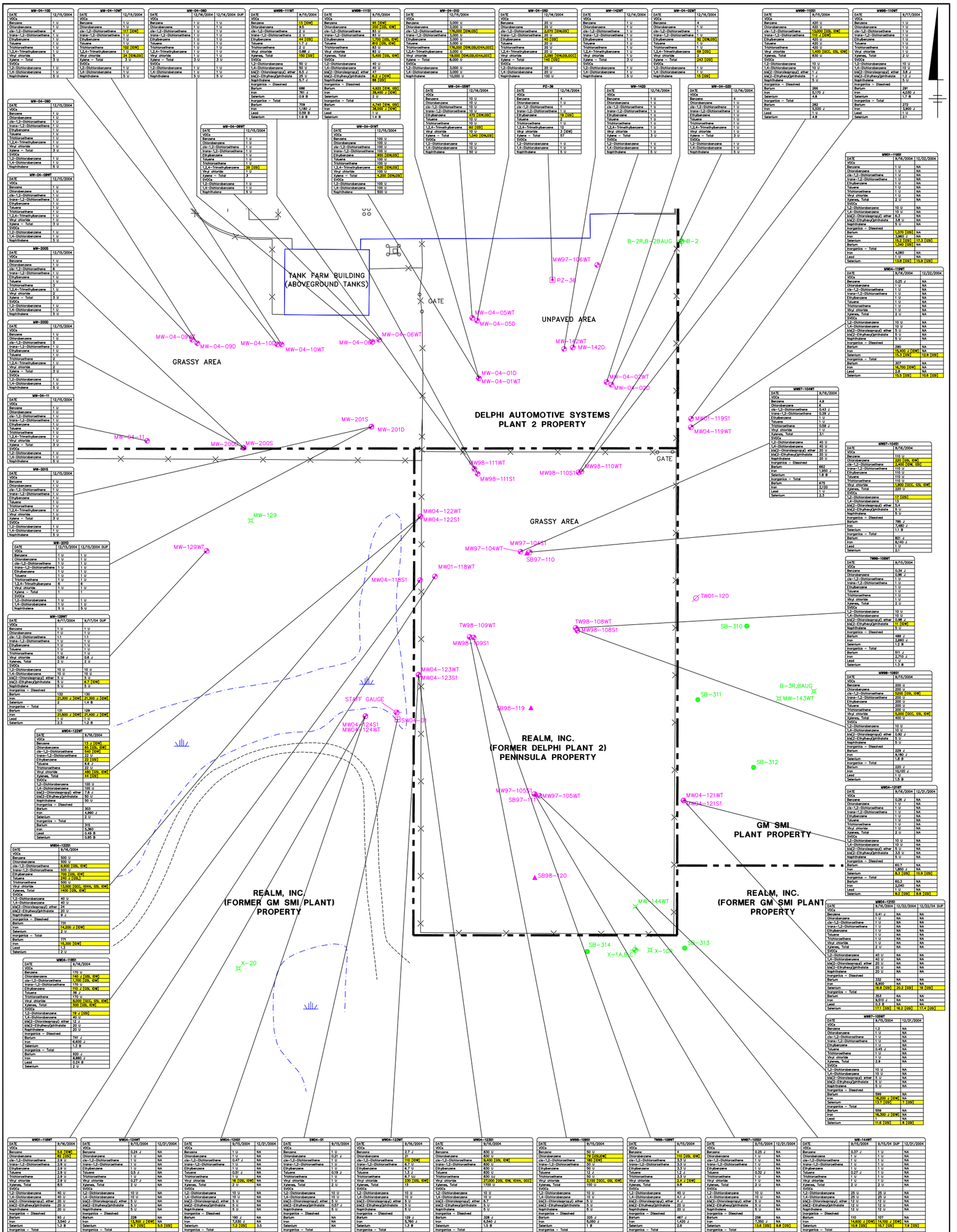
REALM, INC.
PENINSULA PROPERTY
SAGINAW, MICHIGAN

WATER TABLE ELEVATION CONTOUR MAP - SEPTEMBER 15, 2004

BBL BLASLAND, BOUCK & LEE, INC. engineers, scientists, economists

FIGURE 8

X: 86991X01.DWG
L: ON=*, OFF=REF
P: PAGESET/SYR-DP
8/8/05 SYR-BS-GHS LAF GMS
86991005/GW/86991W01.DWG



NOTES:

1. ONLY DATA FOR CONSTITUENTS DETECTED ABOVE GENERIC MDEQ CRITERIA AT ONE OR MORE LOCATIONS ARE SHOWN.
2. BASE MAP DEVELOPED FROM THE FOLLOWING: PHOTOGRAMMETRIC BASE MAP PREPARED BY LOCKWOOD MAPPING, INC. OF ROCHESTER, NEW YORK., AERIAL PHOTOGRAPHY CONDUCTED ON 11/1/94; AND BASE MAP SUPPLIED BY AIR-LAND SURVEYS, INC., AERIAL PHOTOGRAPHY WAS CONDUCTED DURING 11/90.
3. SOME SAMPLE LOCATIONS ARE APPROXIMATE.
4. **GENERIC MDEQ CRITERIA**

   GSI: GROUNDWATER SURFACE WATER INTERFACE

   IDW: INDUSTRIAL DRINKING WATER

   GCC: GROUNDWATER CONTACT CRITERIA

   IGVIA: INDUSTRIAL AND COMMERCIAL GROUNDWATER VOLATILIZATION TO INDOOR AIR INHALATION

   FCV: FINAL CHRONIC VALUE (APPLIES TO SURFACE WATER ONLY)
5. DATA FROM DELPHI PROPERTY WAS COLLECTED BY MACTEC.
6. DUP – DUPLICATE SAMPLE

X: 86991X01.DWG
L: ON=*, OFF=REF
P: PAGESET/SYR-DP
8/8/05 SYR-85-GHS LAF GMS
86991005/GW/86991C01.DWG

LEGEND:

- PROPERTY BOUNDARY
- FENCE LINE
- SURFACE WATER SAMPLE COLLECTION LOCATION

GM SMI PLANT PROPERTY RI AND OTHER COMPLETIONS:

- B-2 WATER TABLE MONITORING WELL
- X-1A,B,C MONITORING WELL CLUSTER
- SB-312 SOIL BORINGS

DELPHI PLANT 2 AND PENINSULA PROPERTY RI AND OTHER COMPLETIONS:

- MW-142D MONITORING WELL
- TW98-108WT TEMPORARY WELL
- SB98-120 SOIL BORING
- PZ-36 PIEZOMETER
- TW01-120 GRAB GROUNDWATER SAMPLING LOCATION

0 50' 100'
GRAPHIC SCALE

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PENINSULA PROPERTY
SAGINAW, MICHIGAN

GROUNDWATER AND SURFACE WATER QUALITY DATA SEPTEMBER AND DECEMBER 2004

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FIGURE 9

Appendices

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Appendix A

Monitoring Well Construction Logs

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A-1
2004 Installations

Date Start/Finish: 8/31/04
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: 2" x 2'

Auger Size: 4'X4" ID
Rig Type: CME 75
Sampling Method: SS
Hammer Weight: 40 lb.

Northing: 691440.67
Easting: 13227388.11
Well Casing: NA

Borehole Depth: 18.0' bgs
Ground Surface: NA

Geologist: W Patterson

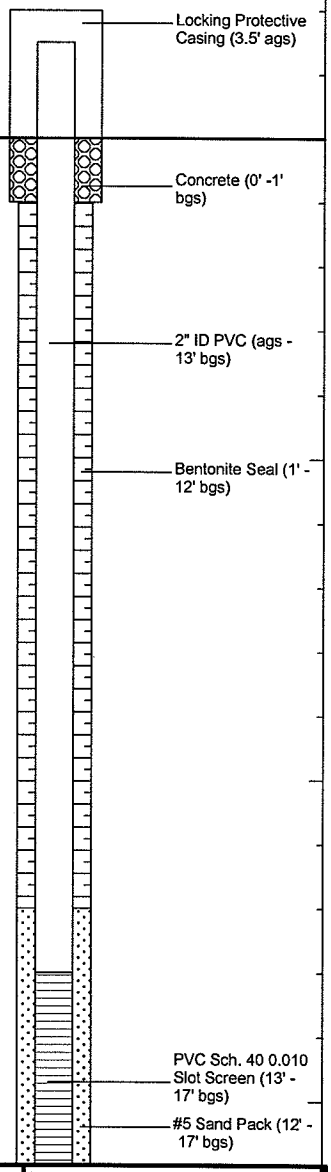
Well No: MW04-118S1

Client: General Motors Corporation

Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 / 0	1-SS	0-2	1 2 3 4	5	1.0	0.0			7.5YR 5/6 Strong brown fine to medium SAND (SP), loose, dry (foundry Sand). [FILL] 1" glass below 1" of Topsoil and Roots. 10YR 2/1 Black fine SAND (SP), little Silt, trace fine Gravel.
	2-SS	2-4	1 1 4 4	5	0.5	0.1			10YR 5/3 Brown fine to medium SAND, little Slag below 3.0' bgs.
5 / -5	3-SS	4-6	5 4 4 6	8	1.0	1.3			Crushed limestone (1") at 5.8' bgs.
	4-SS	6-8	2 2 4 4	6	1.5	0.1			10YR 2/1 Black SANDY CLAY (CL), little fine Gravel, trace Brick, medium stiff, weakly plastic, moist.
	5-SS	8-10	1 2 2 2	4	1.5	0.2			10YR 2/1 Black SILTY SAND (SM), trace Clay, medium dense, saturated. 10YR 5/1 Gray poorly graded SAND (SP), some Shells, little Silt, loose, saturated.
10 / -10	6-SS	10-12	1 1 2 1	3	1.5	0.3			
	7-SS	12-14	1 1 1 1	2	0.5	0.1			
15 / -15	8-SS	14-16	- - 2 3	2	0.5	6.7			

Boring Construction



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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 13' to 17' bgs.

Water Levels

Date	Elev.	Depth

Client:
General Motors Corporation

Site Location:
REALM Peninsula Area
Saginaw, Michigan

Boring ID: MW04-118S1

Borehole Depth: 18.0' bgs

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description	Boring Construction
	9-SS	16-18	2 5 10 12	15	1.5	7.4			10YR 4/1 Dark gray LEAN CLAY with Silt (CL), little fine to medium Sand, trace fine Gravel, stiff, damp. [NATIVE CLAY TILL]	PVC Sch. 40 0.010 Slot Screen (13' - 17' bgs) #5 Sand Pack (12' - 17' bgs)
20-20										
25-25										
30-30										
35-35										

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 13' to 17' bgs.

Water Levels

Date	Elev.	Depth

Date Start/Finish: 9/1/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: 2"x2'

Auger Size: 4'x4" ID
Rig Type: CME 75
Sampling Method: SS
Hammer Weight: 40 lb.

Northing: 691598.00
Easting: 13227676.06
Well Casing: NA

Borehole Depth: 14.0' bgs
Ground Surface: NA

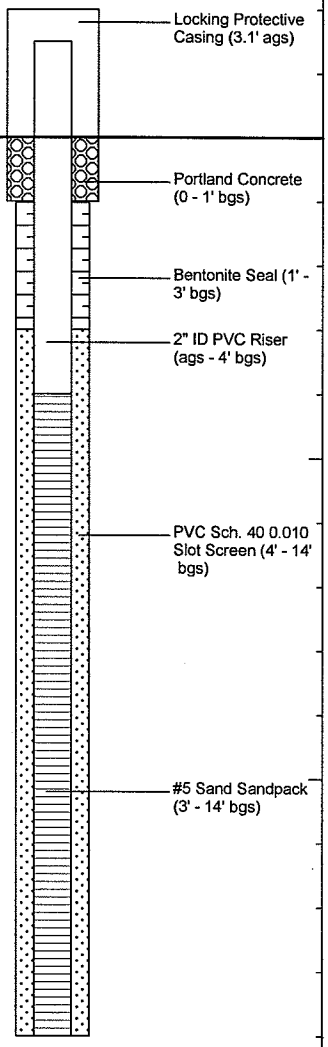
Geologist: W Patterson

Well No: MW04-119WT

Client: General Motors Corporation

Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 - 0									
	1	2-4	6 18 30 13	48	1.0	4.8			10YR 2/1 Black fine SAND (SP), little Silt, trace fine to coarse Gravel, dry to damp. [FILL]
5 - -5	2	5-7	4 5 7 4	12	1.0	0.0			10YR 2/1 Black fine SAND (SP), little Silt, trace fine Gravel, wet. [FILL] Saturated below 6.0' bgs.
									See MW04-119SI for full descriptions.
10 - -10									
15 - -15									



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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 4' to 14' bgs.

Water Levels

Date	Elev.	Depth

Project: 869.91.005 Template: j:\rockware\logplot2001\logfiles\86991\saginaw.ldf
Data File:MW04-119.WT.dat Date: 9/17/04

Date Start/Finish: 9/1/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: 2" ID x 2'

Auger Size: 4'x4" ID
Rig Type: CME 75
Sampling Method: SS
Hammer Weight: 40 lb.

Northing: 691211.04
Easting: 13227664.61
Well Casing: NA

Borehole Depth: 22' bgs
Ground Surface: NA

Geologist: W Patterson

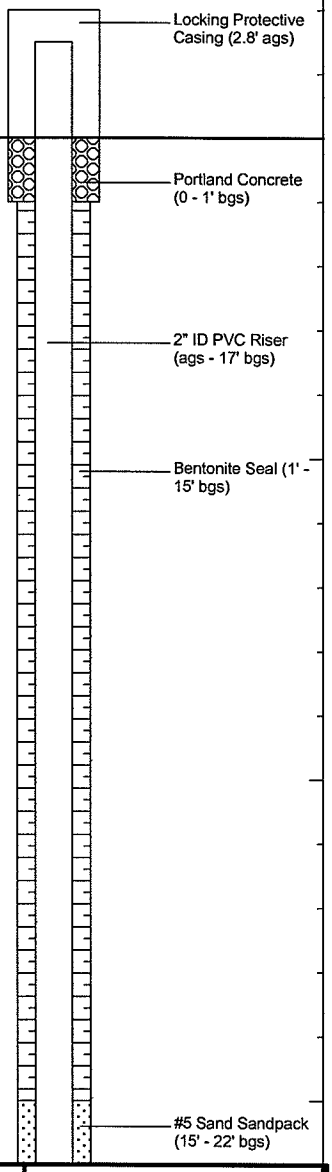
Well No: MW04-121S1

Client: General Motors Corporation

Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 / 0	1-SS	0-2	3, 6, 10, 18	16	1.5	0.1			10YR 2/2 Dark brown TOP SOIL, ROOTS.
									10YR 2/1 Fine SILTY SAND (SP), poorly graded, loose, dry. (foundry sand) [FILL]
	2-SS	2-4	5, 6, 9, 6	15	2.0	0.5			
									Some Slag at 4.0' bgs.
5 / -5	3-SS	4-6	3, 11, 16, 8	27	1.0	57			
	4-SS	6-8	5, 4, 3, 4	7	0.0	NA			
									Fine to coarse SAND, saturated at 8.0' bgs.
	5-SS	8-10	1, 1, 1, 1	2	1.0	12.5			10YR 3/3 Dark brown SANDY SILT (ML), saturated.
10 / -10	6-SS	10-12	1, 1, 1, 1	2	1.0	0.0			Roots at 10.8' bgs.
	7-SS	12-14	1, 1, 1, 3	2	1.0	0.0			10YR 2/1 Fine CLAYEY SAND (SC), Shells, little Silt, medium dense, saturated.
15 / -15	8-SS	14-16	1, 1, 1, 1	2	1.0	0.0			

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 17' to 22' bgs.

Water Levels

Date	Elev.	Depth

Client:
General Motors Corporation

Site Location:
REALM Peninsula Area
Saginaw, Michigan

Boring ID: MW04-121S1

Borehole Depth: 22' bgs

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description	Boring Construction
	9-SS	16-18	1 1 1 1	2	1.0	0.0			10YR 2/1 Fine CLAYEY SAND (SC), Shells, few Silt, dense, saturated.	#5 Sand Sandpack (15' - 22' bgs) PVC Sch. 40 0.010 Slot Screen (17' - 22' bgs)
20-20	10-SS	18-22	3 4 4 5	8	2.0	0.0			10YR 2/1 Gray-brown SILTY SAND (SM), loose, saturated. Some fine Gravel at 21.5' bgs. 10YR 5/2 Dark gray LEAN CLAY with Silt (CL), little fine to medium Sand, trace fine Gravel, stiff. [NATIVE CLAY TILL]	
25-25										
30-30										
35-35										

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 17' to 22' bgs.

Water Levels

Date	Elev.	Depth

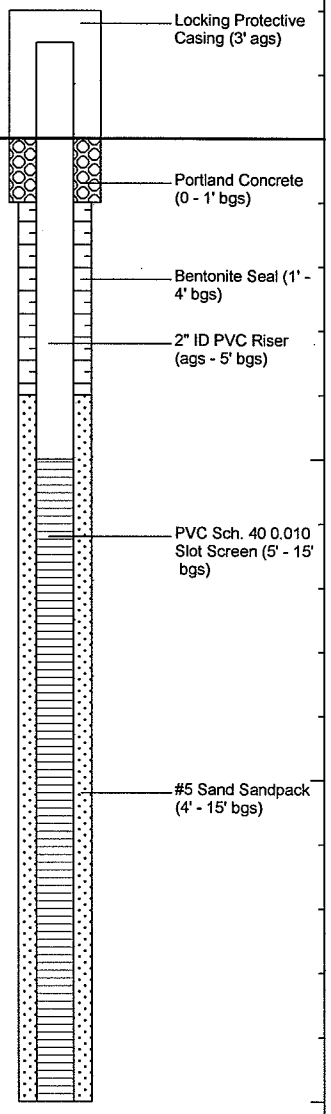
Date Start/Finish: 9/1/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: NA
Auger Size: 4'/4" ID
Rig Type: CME 75
Sampling Method: NA
Hammer Weight: NA

Northing: 691215.85
Easting: 13227664.90
Well Casing: NA
Borehole Depth: 15' bgs.
Ground Surface: NA
Geologist: W Patterson

Well No: MW04-121WT
Client: General Motors Corporation
Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0	0									No soil samples collected- see MW04-121S1
5	-5									
10	-10									
15	-15									

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 5' to 15' bgs.

Water Levels

Date	Elev.	Depth

Project: 869.91.005 Template: j:\rockware\logplot2001\logfiles\86991\saginaw.ldf
Data File:MW04-121.WT.dat Date: 9/14/2004

Date Start/Finish: 8/30/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: 2" ID x 2'

Auger Size: 4'x4" ID
Rig Type: CME 75
Sampling Method: SS
Hammer Weight: 40 lb.

Northing: 691497.87
Easting: 13227387.37
Well Casing: NA

Borehole Depth: 16.5' bgs
Ground Surface: NA

Geologist: W Patterson

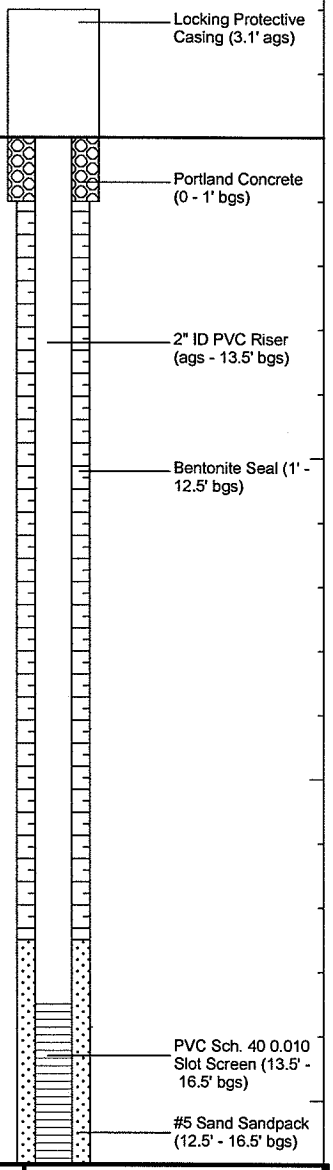
Well No: MW04-122S1

Client: General Motors Corporation

Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 - 0	1-SS	0-2	2 3 3 3	6	1.0	0.0			10YR 2/1 Black and some 7.5YR 5/6 strong brown fine SILTY SAND (SP), some Slag, Glass, foundry Sand, dry. [FILL]
	2-SS	2-4	2 2 4 4	6	1.5	0.1			
5 - 5	3-SS	4-6	11 10 7 7	17	0.3	0.0			
	4-SS	6-8	2 4 6 4	10	1.0	0.0			10YR 2/1 black SANDY CLAY (CL), few bricks, trace foundry Sand, medium stiff, weakly plastic, damp.
	5-SS	8-10	3 4 6 8	10	1.0	0.3			10'YR 4/2 Dark gray to brown fine poorly graded SILTY SAND (SM), trace Clay, loose, saturated.
10 - 10	6-SS	10-12	4 4 4 4	8	1.5	0.5			Color becomes 10YR 51 gray below 9.8' bgs.
	7-SS	12-14	1 1 1 1	2	1.0	0.6			Little Clay below 12.0' bgs.
15 - 15	8-SS	14-16	1 1 1 5	2	1.0	0.7			

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 13.5' to 16.5' bgs.

Water Levels

Date	Elev.	Depth

Client:
General Motors Corporation

Site Location:
REALM Peninsula Area
Saginaw, Michigan

Boring ID: MW04-122S1

Borehole Depth: 16.5' bgs

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description	Boring Construction
	9-SS	16-18	2 6 10 14	16	1.0	0.3			10YR 4/1 Dark gray LEAN CLAY with Silt (CL), little fine to medium Sand, trace fine Gravel, stiff, damp. [NATIVE CLAY TILL]	PVC Sch. 40 0.010 Slot Screen (13.5' - 16.5' bgs) #5 Sand Sandpack (12.5' - 16.5' bgs)
20-20										
25-25										
30-30										
35-35										

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 13.5' to 16.5' bgs.

Water Levels

Date	Elev.	Depth

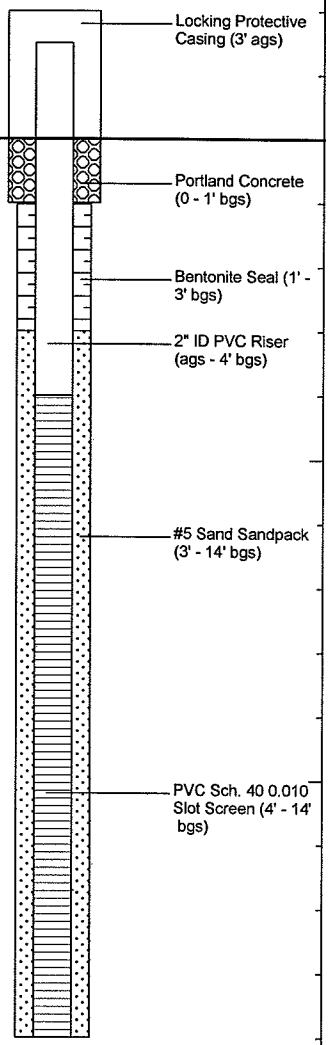
Date Start/Finish: 9/1/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: NA
Auger Size: 4'/4" ID
Rig Type: CME 75
Sampling Method: NA
Hammer Weight: NA

Northing: 691503.82
Easting: 13227387.31
Well Casing: NA
Borehole Depth: 14.0' bgs
Ground Surface: NA
Geologist: W Patterson

Well No: MW04-122WT
Client: General Motors Corporation
Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 0									No soil samples collected- see MW04-122S1 for descriptions.
5 -5									
10 -10									
15 -15									

Boring Construction



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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 4' to 14' bgs.

Water Levels

Date	Elev.	Depth

Project: 869.91.005 Template: j:\rockware\logplot2001\logfiles\86991\saginaw.ldf
Data File:MW04-122.WT.dat Date: 9/14/2004

Date Start/Finish: 8/31/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: 2" ID x 2'

Auger Size: 4' x 4" ID
Rig Type: CME 75
Sampling Method: SS
Hammer Weight: 40 lb.

Northing: 691317.67
Easting: 13227386.85
Well Casing: NA

Borehole Depth: 18.0' bgs
Ground Surface: NA

Geologist: W Patterson

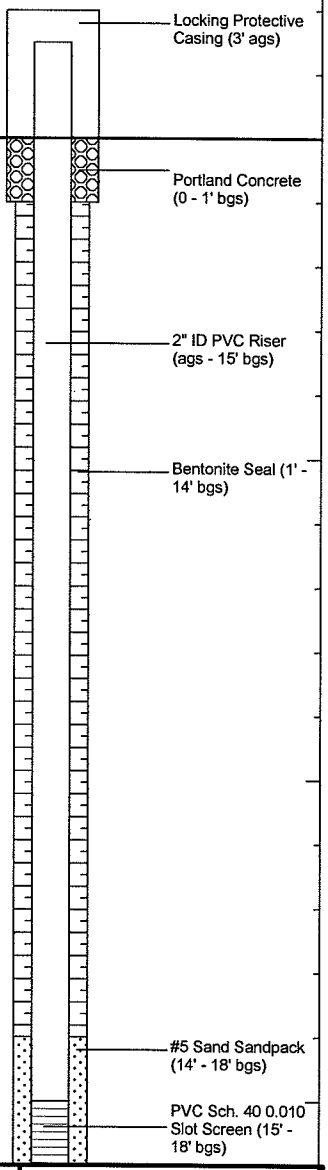
Well No: MW04-123S1

Client: General Motors Corporation

Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 — 0	1-SS	0-2	2 4 8 10	12	1.5	1.2			10YR 2/1 Black SILTY SAND (SM), Roots, dry. [FILL]
									10YR4/1 Dark yellow to brown fine well graded SAND (SW), trace Concrete debris, little Slag, dry. [FILL]
	2-SS	2-4	3 5 1 4	11	1.0	7.3			Some black Sand
5 — -5	3-SS	4-6	6 18 7 7	25	1.0	0.7			Trace Roots 10YR 7/4 Very pale brown crushed limestone 4" thick.
	4-SS	6-8	1 2 2 4	4	1.0	0.3			10YR 2/1 Black fine poorly graded SILTY CLAY (SM), little Clay, medium dense, saturated.
	5-SS	8-10	1 2 2 3	4	1.0	0.3			10YR 2/1 Black fine poorly graded SAND (SP), little Silt, loose, saturated.
10 — -10	6-SS	10-12	1 1 1 1	2	0.75	2.4			Color becoming 10YR 4/1 dark gray.
	7-SS	12-14	1 2 1 1	3	0.5	11.5			
15 — -15	8-SS	14-16	2 3 3 4	6	1.0	19.5			10YR 4/2 Dark gray to brown Silt (ML), saturated.

Boring Construction



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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 15' to 18' bgs.

Water Levels

Date	Elev.	Depth

Client:
General Motors Corporation

Site Location:
REALM Peninsula Area
Saginaw, Michigan

Boring ID: MW04-123S1

Borehole Depth: 18.0' bgs

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description	Boring Construction
			1 4						10YR 4/2 Dark gray to brown Silt (ML), saturated.	PVC Sch. 40 0.010 Slot Screen (15' - 18' bgs) #5 Sand Sandpack (14' - 18' bgs)
	9-SS	16-18	8 10	12	1.0	5.4			10YR 4/1 Dark gray LEAN CLAY with Silt (CL), little fine to medium Sand, trace fine Gravel, stiff, damp. [NATIVE CLAY TILL]	
20-20										
25-25										
30-30										
35-35										

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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 15' to 18' bgs.

Water Levels

Date	Elev.	Depth

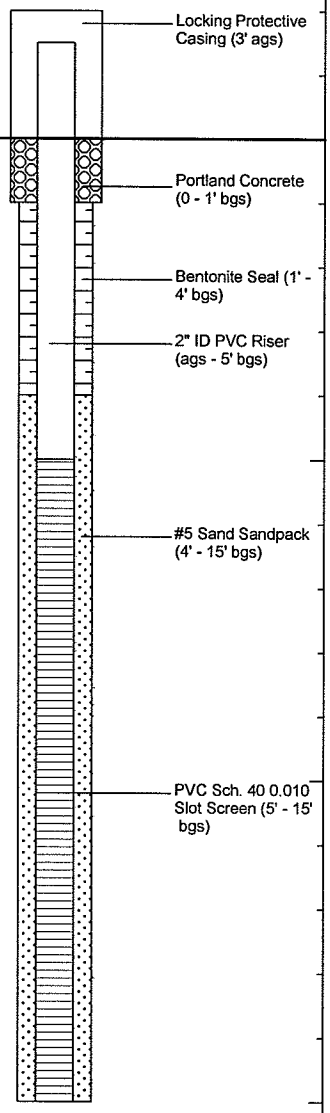
Date Start/Finish: 8/31/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: NA
Auger Size: 4'/4" ID
Rig Type: CME 75
Sampling Method: NA
Hammer Weight: NA

Northing: 691323.01
Easting: 13227386.98
Well Casing: NA
Borehole Depth: 15.0' bgs
Ground Surface: NA
Geologist: W Patterson

Well No: MW04-123WT
Client: General Motors Corporation
Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 0									No soil samples collected- see MW04-123S1 for descriptions.
5 -5									
10 -10									
15 -15									

Boring Construction



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Remarks: bgs = below ground surface;
NA = Not Applicable/Not Available.
Well screen: 5' to 15' bgs.

Water Levels

Date	Elev.	Depth

Project: 869.91.005 Template: j:\rockware\logplot2001\logfiles\86991\saginaw.ldf
Data File:MW04-123.WT.dat Date: 9/17/2004

Date Start/Finish: 8/30/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: 2" ID x 2'

Auger Size: 4'x4" ID
Rig Type: CME 75
Sampling Method: SS
Hammer Weight: 40 lb.

Northing: 691280.55
Easting: 13227341.59
Well Casing: NA

Borehole Depth: 18.0' bgs
Ground Surface: NA

Geologist: W Patterson

Well No: MW04-124S1

Client: General Motors Corporation

Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 / 0	1-SS	0-2	2 3 4 -	7	1	1.4			10TR 2/2 Very dark brown LEAN CLAY with Silt (CL), little fine Sand, little fine Gravel Roots, medium stiff, dry. [FILL]
	2-SS	2-4	- - - -	-	-	-			Concrete debris from 2.0' to 4.0' bgs.
5 / -5	3-SS	4-6	1 2 4 6	6	1.75	1.3			10YR 2/1 Black SILT (MC), some fine Sand, saturated.
	4-SS	6-8	2 2 2 2	4	1.5	2.1			10YR 5/1 Gray poorly graded fine SAND (SP), loose, saturated.
	5-SS	8-10	1 1 1 2	2	1.0	1.1			10YR 3/2 Very dark gray to brown poorly graded SAND (SP), trace Silt, loose, saturated.
10 / -10	6-SS	10-12	1 1 1 1	2	1.0	0.3			10YR 4/1 Dark gray ORGANIC CLAY (OH), Vegetation, Shells, stiff, moderately plastic, wet.
									10YR 2/2 Very dark brown SWAMP SOIL (PT), little fine Sand, Vegetation, soft, weakly plastic, wet.
	7-SS	12-14	0	0	0	-			10YR 4/2 Dark gray to brown fine poorly graded SAND (SP), trace Silt, Very loose, saturated.
15 / -15	8-SS	14-16	0	0	0.1	-			

Boring Construction

- Locking Protective Casing (3' ags)
- Portland Concrete (0 - 1' bgs)
- 2" ID PVC Riser (ags - 13' bgs)
- Bentonite Seal (1' - 12' bgs)
- #5 Sand Sandpack (12' - 18' bgs)
- PVC Sch. 40 0.010 Slot Screen (13' - 18' bgs)

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Remarks: bgs = below ground surface
NA = Not Applicable/Not Available.
Well screen: 13' to 18' bgs.

Water Levels

Date	Elev.	Depth

Client:
General Motors Corporation

Site Location:
REALM Peninsula Area
Saginaw, Michigan

Boring ID: MW04-124S1

Borehole Depth: 18.0' bgs

DEPTH ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description	Boring Construction
	9-SS	16-18	3 4 7 7	11	2	0.5			10YR 4/1 Dark gray LEAN CLAY with Silt (CL), little fine to medium Sand, trace fine Gravel, stiff, weakly plastic, damp. [NATIVE CLAY TILL]	PVC Sch. 40 0.010 Slot Screen (13' - 18' bgs) #5 Sand Sandpack (12' - 18' bgs)
20-20										
25-25										
30-30										
35-35										

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Remarks: bgs = below ground surface
NA = Not Applicable/Not Available.
Well screen: 13' to 18' bgs.

Water Levels

Date	Elev.	Depth

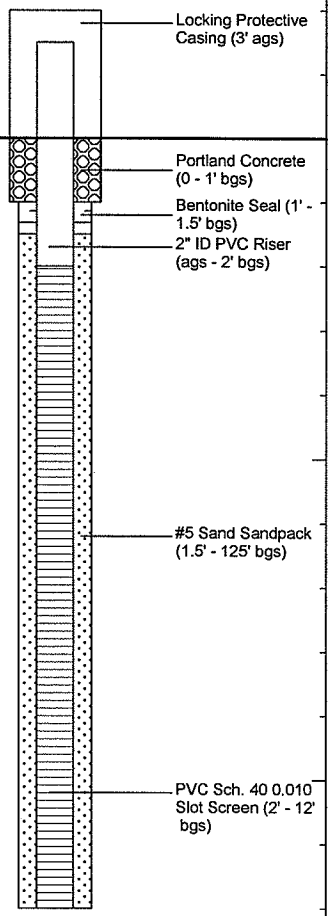
Date Start/Finish: 8/30/2004
Drilling Company: Altech LLC
Driller's Name: Nelson Copeland
Drilling Method: HSA
Sampler Size: NA
Auger Size: 4'/4" ID
Rig Type: CME 75
Sampling Method: NA
Hammer Weight: NA

Northing: 691275.62
Easting: 13227341.91
Well Casing: NA
Borehole Depth: 12.0' bgs
Ground Surface: NA
Geologist: W Patterson

Well No: MW04-124WT
Client: General Motors Corporation
Location:
REALM Peninsula Area
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0 / 0									No soil samples collected- see MW04-124S1 for descriptions.
5 / -5									
10 / -10									
15 / -15									

Boring Construction



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Remarks: bgs = below ground surface
NA = Not Applicable/Not Available.
Well Screen 2.0'-12.0' bgs

Water Levels

Date	Elev.	Depth

A-2
Historical Installations

Date Start/Finish: 01/17/95 / 01/17/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 34 ft.
Ground Surface Elev.: ft.

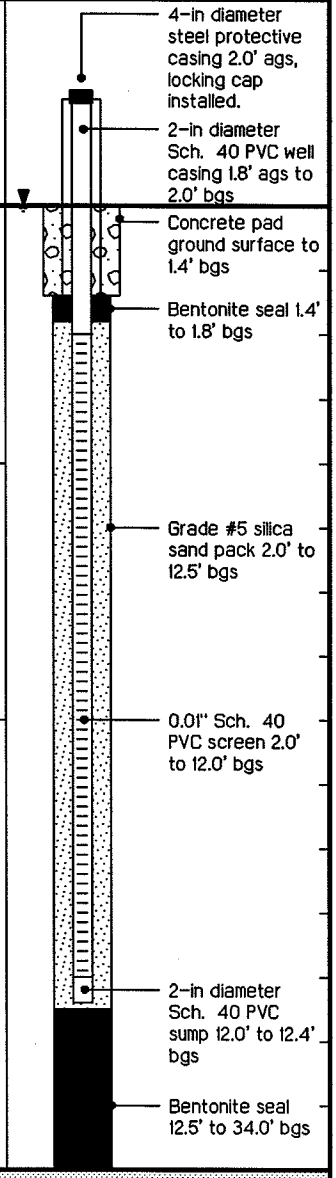
Geologist: Ron Kuhn

Well No. MW-129 WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH ft	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation ft.										**GROUND SURFACE**
		(0-2')		NA	NA	2.0	0.0			Brown SILT, some fine Sand, trace organics (roots), saturated.
		(2-4')		NA	NA	1.4	0.0			
5	-5	(4-6')		0 2 5 8	7	1.5	0.0			Brown fine to medium SAND, trace Silt, saturated.
		(6-8')		3 6 6 7	12	1.5	0.0			Trace fine Gravel and shells.
		(8-10')		3 6 7 7	13	1.1	0.0			Brown SILT, little fine Sand, trace Clay and fine Gravel, dense, moist.
10	-10	(10-12')		2 3 8 10	11	1.9	0.0			Little Clay.
		(12-14')		3 6 10 13	16	1.8	0.0			Trace fine to medium Gravel.
15	-15	(14-16')		3 6	16	1.8	0.0			



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Remarks:
NA - Not Available. WOH - Weight of Hammer.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-129 WT

Total Depth = 34 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	-15	(14-16')		10 13	16	1.8	0.0			Brown SILT, little Clay, trace fine to medium Gravel, dense, moist.	
		(16-18')		3 6 9 11	15	1.6	0.0				
		(18-20')		2 3 6 6	9	2.0	0.0				
20	-20	(20-22')		2 3 4 4	7	2.0	0.0				Bentonite seal 12.5' to 34.0' bgs
		(22-24')		2 3 4 5	7	2.0	0.0			Brown SILT, some Clay, trace fine to medium Gravel, moist.	
25	-25	(24-26')		1 3 3 3	6	2.0	0.0			Brown Silty CLAY, soft, moist, high plasticity.	
		(26-28')		NA	NA	2.0	0.0				
		(28-30')		1 1 1 1	2	2.0	0.0				
30	-30	(30-32')		WOH (24")	0	1.3	0.0				
		(32-34')		WOH (18") 1	0	1.5	0.8				
35	-35									Total depth of boring 34.0 ft. bgs.	

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Remarks:
NA - Not Available. WOH - Weight of Hammer.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 01/19/95 / 01/20/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.

Northing: 692257.1635
Easting: 13227783.5743
Well Casing Elev.: 594.24 ft.
Corehole Depth:
Borehole Depth: 14.5 ft.
Ground Surface Elev.: 591.96 ft.

Geologist: James Saxton

Well No. MW-132 WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.96 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.6' ags, locking cap installed.
590	(0-2')		NA 1 3 4	4	1.5	0.0			Gray concrete. Black and brown fine to medium SAND, trace Silt, moist.	Concrete pad ground surface to 1.0' bgs
	(2-4')		WOH 1 1 1	2	2.0	0.0				2-in diameter Sch. 40 PVC well casing 2.3' ags to 4.0' bgs Bentonite seal 1.0' to 3.0' bgs
5	(4-6')		WOH 1 2 2	3	1.5	0.7				
585	(6-8')		WOH 1 2 2	3	1.5	0.7			Black SILT, some fine Sand, trace roots, moist. Gray fine SAND, trace Silt, wet.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
	(8-10')		WOH 3 5 6	8	1.5	0.3			Gray fine SAND, trace Silt and fine Gravel, wet.	Grade #5 silica sand pack 3.0' to 14.5' bgs
10	(10-12')		WOH 1 2 2	3	1.5	0.4			Trace shells.	
580	(12-14')		WOH 1 (12") 1	1	1.0	0.2				2-in diameter Sch. 40 PVC sump 14.0' to 14.4' bgs
15									Total depth of boring 14.5 ft bgs.	

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ENGINEERS & SCIENTISTS

Remarks:
WOH - Weight of Hammer. Soil descriptions taken from MW-132 S1 boring log.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 01/19/95 / 01/20/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.

Northing: 692264.6975
Easting: 13227789.7252
Well Casing Elev.: 594.18 ft.
Corehole Depth:
Borehole Depth: 38.0 ft.
Ground Surface Elev.: 592.00 ft.

Geologist: James Saxton

Well No. MW-132 SI

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.00 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed.
590	(0-2')		NA 1 3 4	4	1.5	0.0			Gray concrete. Black and brown fine to medium SAND, trace Silt, moist.	Concrete pad ground surface to 2.0' bgs
	(2-4')		WOH 1 1 1	2	2.0	0.0				
5	(4-6')		WOH 1 2 2	3	1.5	0.7				Type I Portland cement/5% bentonite grout 2.0' to 18.0' bgs
585	(6-8')		WOH 1 2 2	3	1.5	0.7			Black SILT, some fine Sand, trace roots, moist. Gray fine SAND, trace Silt, wet.	
	(8-10')		WOH 3 5 6	8	1.5	0.3			Gray fine SAND, trace Silt and fine Gravel, wet.	
10	(10-12')		WOH 1 2 2	3	1.5	0.4			Trace shells.	2-in diameter Sch. 40 PVC well casing 2.2' ags to 22.0' bgs
580	(12-14')		WOH 1 (12") 1	1	1.0	0.2				
15	(14-16')		WOH 1	1	1.0	0.3				

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Remarks:
WOH - Weight of Hammer

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-132 S1

Total Depth = 38.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		(12") 1	1	1.0	0.3			Gray fine SAND, trace Silt, fine Gravel, and shells, wet.	Type 1 Portland cement/5% bentonite grout 2.0' to 18.0' bgs
	575	(16-18')		WOH (18") 1	0	2.0	0.3				2-in diameter Sch. 40 PVC well casing 2.2' ags to 22.0' bgs
		(18-20')		WOH 1 (12") 1	1	2.0	0.1				Bentonite seal 18.0' to 20.0' bgs
20		(20-22')		WOH 1 1 1	2	2.0	0.4				
	570	(22-24')		WOH 1 2 1	3	1.5	0.8			Brown to black PEAT, some Silt, moist.	0.01" Sch. 40 PVC screen 22.0' to 27.0' bgs
										Gray CLAY and SILT, moist.	
		(24-26')		WOH 2 2 3	4	1.5	0.4			Brown fine to medium SAND, some Silt, wet.	
25										Gray CLAY and SILT, moist.	Grade #5 silica sand pack 20.0' to 28.0' bgs
	565	(26-28')		1 4 5 7	9	1.7	0.2			Brown fine to medium SAND, some Silt, wet.	
										Brown CLAY, some SILT, trace fine Gravel, moist.	2-in diameter Sch. 40 PVC sump 27.0' to 27.4' bgs
		(28-30')		2 6 9 14	15	1.5	0.3				
30		(30-32')		2 8 15 15	23	1.0	0.4				Bentonite seal 28.0' to 38.0' bgs.
	560	(32-34')		3 9 11 13	20	1.5	2.7				
35		(34-36')		3 5	12	2.0	0.6				

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-132 S1

Total Depth = 38.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(34-36')		7 7	12	2.0	0.6			Brown CLAY, some SILT, trace fine Gravel, moist.	Bentonite seal 28.0' to 38.0' bgs.
	555	(36-38')		4 5 7 8	12	2.0	7.8				
										Total depth of boring 38.0 ft bgs.	
40											
	550										
45											
	545										
50											
	540										
55											

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ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 02/24/95 / 02/24/95
Drilling Company: Mateco
Driller's Name:
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size :** ID 4.25
Rig Type: CME 95
Spoon Size: 2-in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 23.3 ft.
Ground Surface Elev.: 598.37 ft.

Geologist: Ron Kuhn

Well No. MW-139 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 598.37 ft.										**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed
		(0-2')		– – 5 13	5	0.7	0.0			Black ASPHALT.	Concrete pad ground surface to 1.0' bgs
										Wood.	
										Gray and brown mottled SILT, damp.	
	595	(2-4')		3 3 3 3	6	1.2	0.1			Black fine to medium SAND, damp.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 13.0' bgs
5		(4-6')		3 9 12 14	21	1.7	0.0			Brown and gray mottled CLAY, some Silt, trace coarse Sand and fine Gravel, occasional vertical fractures, moist.	Type 1 Portland cement/5% bentonite grout 1.0' to 9.0' bgs
		(6-8')		5 10 12 14	22	1.8	0.0				
	590	(8-10')		4 6 9 10	15	1.5	0.2				
10		(10-12')		4 6 8 8	14	1.6	0.1			Fewer fractures.	Bentonite seal 9.0' to 11.0' bgs
		(12-14')		5 5 6 8	11	1.8	0.0			No mottling, Clay becomes wetter.	Grade #5 silica sand pack 11.0' to 23.3' bgs
	585	(14-16')		2 3	6	2.0	0.1				0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs
15											

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Remarks:
Soil descriptions taken from 139 boring log.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-139 WT

Total Depth = 23.3 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		3 3	6	2.0	0.1			Brown CLAY, some Silt, little fine Sand, trace fine Gravel, wet.	0.01" Sch. 40 PVC screen 13.0' to 23.0' bgs
		(16-18')		3 3 3 4	6	1.2	0.0			Trace coarse Sand.	
	580	(18-20')								Obtained shelby tube sample 18.0' to 20.0'.	Grade #5 silica sand pack 11.0' to 23.3' bgs
20		(20-22')								Cone penetrometer tests 20.0' to 25.0'.	
	575	(22-24')								Total depth of boring 23.3 ft. bgs.	2-in diameter Sch. 40 PVC sump 23.0' to 23.2' bgs
25											
	570										
30											
	565										
35											

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Remarks:
Soil descriptions taken from 139 boring log. Shelby tube sample taken 18.0'-20.0' bgs. Cone penetrometer tests from 20.0'- 25.0' bgs.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 02/08/95 / 02/08/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size** : ID 4.25
Rig Type: CME 75
Spoon Size: 2-in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 13.4 ft.
Ground Surface Elev.: ft.

Geologist: Hillary Hollister-Hinge

Well No. MW-142 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed Concrete pad ground surface to 1.5' bgs
	(0-2')		8 8 6 14	14	1.4	2.0			Light brown fine to medium SAND, medium dense, dry.	
	(2-4')		16 28 17 8	45	1.5	14.8			Dark brown fine to coarse SAND, trace fine Gravel and slag, dry. Dark brown fine to coarse SAND, trace fine to medium Gravel and slag, slight odor, dry. Becomes moist, no medium Gravel.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 3.0' bgs Bentonite seal 1.5' to 2.5' bgs Grade #5 silica sand pack 2.5' to 13.4' bgs
5	(4-6')		1 4 10 7	14	1.6	18.2				
	(6-8')		6 3 1 1	4	0.8	27.1			Black SILT, some fine to medium Sand, loose, wet.	0.01" Sch. 40 PVC screen 3.0' to 13.0' bgs
	(8-10')		1 1 (12") 1	1	1.8	15.6			Black fine to medium SAND, trace Silt, very loose, wet.	
10	(10-12')		WOH 1 2 3	3	1.5	15.9			Sand becomes grayish brown, trace shell fragments.	
	(12-14')		WOH 1 1 1	2	1.0	5.2				2-in diameter Sch. 40 PVC sump 13.0' to 13.4' bgs
									Total depth of boring 13.4 ft bgs.	
15										

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: BBL-well
Date: 02/03/05

Date Start/Finish: 06/07/95 / 06/07/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: -1-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing: -1
Easting: -1
Well Casing Elev.: -1 ft.
Corehole Depth: -1 ft.
Borehole Depth: 13 ft.
Ground Surface Elev.: -1 ft.

Geologist: Ron D. Kuhn

Well No. MW-144 NT

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation -1 ft.										**GROUND SURFACE**	4-in diameter steel protective casing 2.5' ags, locking cap installed; Concrete pad ground surface to 1.0' bgs
		(0-2')		9 14 9 9	23	2.0				Black/brown fine to medium SAND, little Silt, trace fine Gravel, wood, and organic material, medium dense, damp.	2-in diameter Sch. 40 PVC well casing 2.1' ags to 1.0' bgs; Bentonite seal 1.0' to 1.5' bgs
		(2-4')		4 31 18 7	49	1.6				Brown SILT and CLAY, trace fine Sand and fine Gravel, stiff, damp.	
-5										Black/brown fine to medium SAND, little Silt, medium dense, damp.	Grade #5 silica sand pack 1.5' to 13.0' bgs
5		(4-6')		2 3 7 7	10	0.6				Gray concrete/brick material.	
		(6-8')		1 WOH 1 WOH	1	1.0				Black fine to medium SAND, little fine to medium Gravel, trace glass, loose, saturated, slight odor, no sheen.	
										No glass, very loose.	
-10		(8-10')		2 3 5 4	8	1.0				Gray SILT and CLAY, litte fine to medium Gravel, medium stiff, wet.	0.01" Sch. 40 PVC screen 2.0' to 12.0' bgs
10		(10-12')		2 3 3 4	6	2.0					
		(12-13')								Augered from 12.0' to 13.0' bgs.	2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs
-15										Total depth of boring 13.0 ft. bgs.	
15											

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:
WOH = Weight of Hammer; bgs = Below Ground Surface; ags = Above Ground Surface

Saturated Zones

Date / Time	Elevation	Depth
		-1
		-1
		-1

Project: 276.06
Script: bbl-well
Date: 02/03/05

Date Start/Finish: 06/06/95 / 06/06/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 17.4 ft.
Ground Surface Elev.: ft.

Geologist: Ron D. Kuhn

Well No. MW-143WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.											
0										**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed
		(0-2')								Black fine to medium SAND, moist.	Concrete ground surface to 2.0' bgs
		(2-4')									Bentonite seal 2.0' to 4.0' bgs
5	-5	(4-6')								Orange fine to medium SAND, some Silt, slightly cohesive, moist.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 6.0' bgs
		(6-8')									
		(8-10')									Grade #5 silica sand pack 4.0' to 16.4' bgs
10	-10	(10-12')									0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(12-14')								Black SILT, soft, wet.	
		(14-16')									
15	-15										

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Remarks:
Augered continuously to 17.4'. Soil descriptions taken from boring log B-3B (AUG).

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-143WT

Total Depth = 17.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
15	-15	(14-16')								Dark gray SILT, little to some Clay, trace fine Sand, moist.	2-in diameter Sch. 40 PVC sump 16.0' to 16.4'bgs
		(16-17.4')								Gray SILT, little Clay, trace fine Sand, soft, moist.	Bentonite seal 16.4' to 17.4' bgs
										Total depth of boring 17.4 ft. bgs.	
20	-20										
25	-25										
30	-30										
35	-35										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:
Augered continuously to 17.4'. Soil descriptions taken from boring log B-3B (AUG).

Saturated Zones

Date / Time	Elevation	Depth
		▼
		▽
		▽

Date Start/Finish: 06/07/95 / 06/07/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: -1-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing: -1
Easting: -1
Well Casing Elev.: -1 ft.
Corehole Depth: -1 ft.
Borehole Depth: 13 ft.
Ground Surface Elev.: -1 ft.

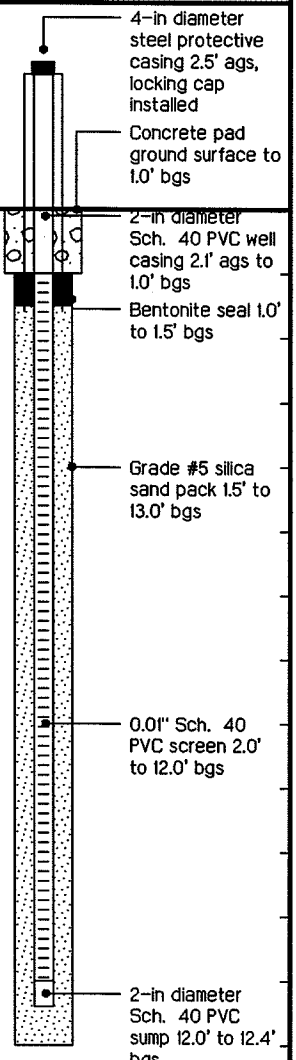
Geologist: Ron D. Kuhn

Well No. MW-144 WT

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
gs elevation -1 ft.										**GROUND SURFACE**
		(0-2')		9 14 9 9	23	2.0				Black/brown fine to medium SAND, little Silt, trace fine Gravel, wood, and organic material, medium dense, damp.
		(2-4')		4 31 18 7	49	1.6				Brown SILT and CLAY, trace fine Sand and fine Gravel, stiff, damp.
-5										Black/brown fine to medium SAND, little Silt, medium dense, damp.
5		(4-6')		2 3 7 7	10	0.6				Gray concrete/brick material.
		(6-8')		1 WOH 1 WOH	1	1.0				Black fine to medium SAND, little fine to medium Gravel, trace glass, loose, saturated, slight odor, no sheen.
										No glass, very loose.
-10		(8-10')		2 3 5 4	8	1.0				Gray SILT and CLAY, litte fine to medium Gravel, medium stiff, wet.
10		(10-12')		2 3 3 4	6	2.0				
		(12-13')								Augered from 12.0' to 13.0' bgs.
-15										Total depth of boring 13.0 ft. bgs.
15										



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Remarks:
WOH - Weight of Hammer; bgs - Below Ground Surface; ags - Above Ground Surface

Saturated Zones

Date / Time	Elevation	Depth
		-1
		-1
		-1

Date Start/Finish: 06/14/95 / 06/14/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing: 692420.4507
Easting: 13227550.4189
Well Casing Elev.: 592.07 ft.
Corehole Depth:
Borehole Depth: 15.4 ft.
Ground Surface Elev.: 592.35 ft.

Geologist: Ronald D. Kuhn

Well No. MW-147WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.35 ft.									**GROUND SURFACE**	9-in diameter steel protective curb box with sand drain, locking well cap
	(0-2')								Concrete pavement and subbase.	Concrete pad
									Black fine SAND, medium dense, dry.	Grade #5 silica sand drain 0.4' to 1.0' bgs
590	(2-4')								Black fine SAND and SILT, loose, moist.	Bentonite seal 1.0' to 3.0' bgs
5	(4-6')								Medium dense.	2-in diameter Sch. 40 PVC well casing 0.3' to 5.0' bgs
585	(6-8')								Dark gray SILT, soft, wet.	
	(8-10')									Grade #5 silica sand pack 3.0' to 15.4' bgs
10	(10-12')									0.01" Sch. 40 PVC screen 5.0' to 15.0' bgs
									Dark gray Clayey SILT, very soft, wet.	
580	(12-14')								Dark gray SILT, soft, wet.	
15									No sample taken from TW-239WT15 below 14.0' bgs.	

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Remarks:
Augered continuously to 15.4' bgs. Soil descriptions were taken from temporary well log TW-239WT15.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-147WT

Total Depth = 15.4 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Total depth of boring 15.4 ft. bgs.	2-in diameter Sch. 40 PVC sump 15.0' to 15.4' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 06/14/95 / 06/14/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size** : ID 4.25
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing: 13227519.6520
Easting: 692358.5536
Well Casing Elev.: 592.02 ft.
Corehole Depth:
Borehole Depth: 16 ft.
Ground Surface Elev.: 592.29 ft.

Geologist: Ronald D. Kuhn

Well No. MW-148 WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.29 ft.										9-in diameter steel protective curb box with sand drain, locking well cap
									GROUND SURFACE	
	(0-2')		23 14 8 9	22	1.8	16.6			Gray fine to medium GRAVEL, little Silt and fine to medium Sand, medium dense, dry.	Concrete pad
590										Grade #5 silica sand drain 0.4' to 1.0' bgs
	(2-4')		3 5 25 10	30	1.6	114			Dark brown fine to medium SAND, little Silt, trace fine Gravel, medium dense, damp.	Bentonite seal 1.0' to 3.0' bgs
5	(4-6')		2 2 3 1	5	1.4	52.8			Black fine SAND and SILT, trace fine Gravel, stiff, damp. Trace charred material and slag.	2-in diameter Sch. 40 PVC well casing 0.3' to 5.0' bgs
585	(6-8')		2 1 1 1	2	1.8	23.7			Dark brown fine to coarse SAND and SILT, trace fine Gravel, loose, moist.	
	(8-10')		1 WOH 1 1	1	1.8	26.1			Brown SILT, trace fine Sand and organic material, soft, wet. Grades to gray fine to medium SAND, little Silt, loose, saturated, sheen, odor.	0.01" slotted Sch. 40 PVC screen 5.0' to 15.0' bgs
10	(10-12')		1 WOH 1 WOH	1	1.5	10.6				
580	(12-14')		WOH (24")	0	1.8	7.7			Grades to gray fine SAND and SILT, loose, wet to saturated, slight sheen.	Grade #5 silica sand pack 3.0' to 16.0' bgs
15	(14-16')		WOH 1	5	1.8	3.7			Gray fine to medium SAND, little	

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Remarks:
WOH - Weight of Hammer

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-148 WT

Total Depth = 16 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		4 6	5	1.8	3.7			to trace fine Gravel, trace Silt, loose, saturated.	2-in diameter Sch. 40 PVC sump 15.0' to 15.4' bgs
									Gray SILT and CLAY, trace fine Gravel, very stiff, moist.	
575									Total depth of boring 16.0 ft. bgs.	
20										
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 09/22/95 / 09/22/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.

Northing: 692138.5655
Easting: 13227715.7693
Well Casing Elev.: 591.31 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.34 ft.

Geologist: Ronald D. Kuhn

Well No. MW-151WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.34 ft.										**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
		(0-2')								Black and brown fine to coarse SAND and fine to medium GRAVEL, trace Silt, loose, dry.	Concrete pad
	590									Red Slag.	Grade #5 silica sand drain 0.5' to 1.5' bgs
		(2-4')								Brown SILT, some coal pieces, medium hard, dry. Grades with little Clay.	Bentonite seal 1.5' to 4.0' bgs
5		(4-6')									2-in diameter Sch. 40 PVC well casing 1.0' to 6.0' bgs
	585	(6-8')								Black fine to coarse SAND, trace fine Gravel, loose, dry.	
		(8-10')								Brown fine SAND and SILT, loose, wet. Trace Shells.	
10		(10-12')									0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	580	(12-14')									Grade #5 silica sand pack 4.0' to 16.5' bgs
15		(14-16')									

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Remarks:
The boring was continuously augered to 16.5' bgs. Soil descriptions were taken from boring log SB-334. A sheen was observed during well development.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-151WT

Total Depth = 16.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Brown fine SAND and SILT, loose, wet.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs; 2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
575									Total depth of boring 16.5 ft. bgs.	
20										
570										
25										
565										
30										
560										
35										

BLASLAND, BOUCK & LEE
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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 09/22/95 / 09/22/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 750 ATV
Spoon Size: 2-in.

Northing: 692199.6795
Easting: 13227751.2135
Well Casing Elev.: 591.88 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.32 ft.

Geologist: Ronald D. Kuhn

Well No. MW-152WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.32 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
									The boring was continuously augered to 16.5' bgs. Refer to boring log SB-330 for closest lithologic description.	Concrete pad
590										Grade #5 silica sand drain 0.4' to 1.5' bgs
										Bentonite seal 1.5' to 4.0' bgs
5										2-in diameter Sch. 40 PVC well casing 0.4' to 6.0' bgs
585										
10										0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
580										
15										Grade #5 silica sand pack 4.0' to 16.5' bgs

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring log SB-330 for closest lithologic description.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-152WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										The boring was continuously augered to 16.5' bgs. Refer to boring log SB-330 for closest lithologic description.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	575									Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
20											
	570										
25											
	565										
30											
	560										
35											

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 09/27/95 / 09/27/95
Drilling Company: Mateco
Driller's Name: Steve Rempalski
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size** : ID 4.25
Rig Type: CME 750 ATV
Spoon Size: 2-in.

Northing: 13227562.6543
Easting: 692257.6342
Well Casing Elev.: 591.87 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.27 ft.

Geologist: Ronald D. Kuhn

Well No. MW-154WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.27 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
590 / 5 / 585 / 10 / 580 / 15									The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description. Based on auger cuttings, soils at the screened interval appeared to be dark brown SILT, little fine Sand, wet. No evidence of LNAPL was detected.	Concrete pad Grade #5 silica sand drain 0.5' to 1.5' bgs Bentonite seal 1.5' to 4.0' bgs 2-in diameter Sch. 40 PVC well casing 0.4' to 6.0' bgs 0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs Grade #5 silica sand pack 4.0' to 16.5' bgs

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-154WT

Total Depth = 16.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
575									Based on auger cuttings, soils at the screened interval appeared to be dark brown SILT, little fine Sand, wet. No evidence of LNAPL was detected.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
20									Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
570										
25										
565										
30										
560										
35										

BBL
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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 09/29/95 / 09/29/95
Drilling Company: Mateco
Driller's Name: Steve Rapulski
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size** : ID 4.25
Rig Type: CME 750 ATV
Spoon Size: 2-in.

Northing: 13227505.5388
Easting: 692206.9702
Well Casing Elev.: 592.21 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.56 ft.

Geologist: Ronald D. Kuhn

Well No. MW-155WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.56 ft.										**GROUND SURFACE**	8-in diameter steel protective curb box with sand drain, locking well cap
		(0-2')								Concrete.	Concrete pad
										Brown fine SAND and SILT, trace fine Gravel, medium dense, damp.	Grade #5 silica sand drain 0.5' to 1.5' bgs
	590	(2-4')									Bentonite seal 1.5' to 4.0' bgs
5		(4-6')									2-in diameter Sch. 40 PVC well casing 0.3' to 6.0' bgs
		(6-8')									
	585									Dark gray fine SAND, trace Silt, very loose.	
		(8-10')								Wet, no sheen.	
10										Gray, little Silt, saturated, no sheen.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(10-12')									
	580										
		(12-14')									Grade #5 silica sand pack 4.0' to 16.5' bgs
										Gray CLAY and SILT, very soft, moist to wet.	
15		(14-16')									

BBL
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engineers & scientists

Remarks:
The boring was continuously augered to 16.5' bgs. Soil descriptions were taken from boring log SB-335. A sheen was noticed on auger cuttings during MW-155WT installation.

Water Levels

Date / Time	Elevation	Depth

Project: 276.08
Script: BBL-well
Date: 02/03/05

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-155WT

Total Depth = 16.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
575	(14-16')								Dark brown SILT and PEAT, little fine Sand, very soft.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
20									Gray fine SAND, little Silt, trace shells, very loose, wet.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
570									Total depth of boring 16.5 ft bgs.	
25										
565										
30										
560										
35										

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engineers & scientists

Remarks:
Well MW-155WT was abandoned and replaced on 01/18/96. No sheen was noticed on groundwater during well development, nor during the replacement well development.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 09/27/95 / 09/27/95
Drilling Company: Mateco
Driller's Name: Steve Rempalski
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size :** ID 4.25
Rig Type: CME 750 ATV
Spoon Size: 2-in.

Northing: 13227466.1920
Easting: 692280.6148
Well Casing Elev.: 592.30 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.60 ft.

Geologist: Ronald D. Kuhn

Well No. MW-156WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.60 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
590									The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description.	Concrete pad
5										Grade #5 silica sand drain 0.4' to 1.5' bgs
585										Bentonite seal 1.5' to 4.0' bgs
10										2-in diameter Sch. 40 PVC well casing 0.3' to 6.0' bgs
580										0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
15										Grade #5 silica sand pack 4.0' to 16.5' bgs

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Remarks:
The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description. A sheen was noticed on groundwater during well development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-156WT

Total Depth = 16.5 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
575 / 20 / 570 / 25 / 565 / 30 / 560 / 35									The boring was continuously augered to 16.5' bgs. Refer to boring log SB-328 for closest lithologic description. Total depth of boring 16.5 ft. bgs.	Grade #5 silica sand pack 4.0' to 16.5' bgs 2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 1/18/96 / 1/18/96
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.

Northing: 692378.1233
Easting: 13227611.3971
Well Casing Elev.: 591.72 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.19 ft.

Geologist: Ronald D. Kuhn

Well No. MW-157WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.19 ft.									**GROUND SURFACE**	8-in diameter steel protective curb box with sand drain, locking well cap
	(0-2')		NA	NA	NA	NA			Concrete.	Concrete pad
590	(2-4')		16 18 31 15	49	1.8	13.2			Black fine SAND, damp. Trace fine Gravel. Gray.	Grade #5 silica sand drain 0.6' to 1.5' bgs Bentonite seal 1.5' to 4.0' bgs
5	(4-6')		3 2 6 3	8	1.6	8.2			Dark brown fine SAND, trace fine Gravel, trace Slag, damp. At 5.1-5.6', a layer of brown to orange fine SAND.	2-in diameter Sch. 40 PVC well casing 0.5' to 6.0' bgs
585	(6-8')		1 1 1 2	2	1.7	10.6			Gray fine SAND, little Silt, trace natural organics (roots), moist to wet, NAPL evident in soil at tip of spoon.	
	(8-10')		2 2 3 4	5	2.0	5.4			Little to some Silt, NAPL evident on inside of spoon.	
10	(10-12')		1 1 1 2	2	2.0	5.7			Saturated, NAPL not as evident.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
580	(12-14')		WOH (24")	0	NR	NA			No recovery.	Grade #5 silica sand pack 4.0' to 16.5' bgs
15	(14-16')		1 1	2	2.0	1.8			Gray Silty CLAY, trace fine Sand, trace Shells, moist.	

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Remarks:
NA - Not Available. NR - No recovery. WOH - Weight of Hammer. Soil samples submitted for grain size analyses were obtained from 8-10' bgs and 14-16' bgs.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-157WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1 1	2	2.0	1.8			Gray Silty CLAY, trace fine Sand, trace Shells, moist.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(16-16.5')		3	3	0.5	1.2				2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575									Total depth of boring 16.5 ft. bgs.	
20											
	570										
25											
	565										
30											
	560										
35											

BLASLAND, BOUCK & LEE
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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 1/18/96 / 1/18/96
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 55
Spoon Size: 2-in.

Northing: 692278.1505
Easting: 13227724.6530
Well Casing Elev.: 591.78 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.17 ft.

Geologist: Ronald D. Kuhn

Well No. MW-158WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.17 ft.										8-in diameter steel protective curb box with sand drain, locking well cap
									GROUND SURFACE	Concrete pad
590									Based on auger cuttings, black foundry SAND from 0.0-10.0' bgs.	Grade #5 silica sand drain 0.6' to 1.5' bgs
										Bentonite seal 1.5' to 4.0' bgs
5										2-in diameter Sch. 40 PVC well casing 0.4' to 6.0' bgs
585										
10									Based on auger cuttings, soils below 10.0' bgs, within the screened interval, appeared to be gray fine SAND, trace Silt, trace shell fragments. A sheen was noticed on the auger cuttings.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
580										Grade #5 silica sand pack 4.0' to 16.5' bgs
15										

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Remarks:
The boring was continously augered to 16.5' bgs. A sheen was noticed on groundwater during development.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-158WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
										Based on auger cuttings, soils below 10.0' bgs, within the screened interval, appeared to be gray fine SAND, trace Silt, trace shell fragments. A sheen was noticed on the auger cuttings.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
	575									Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
Soil samples submitted for grain size analyses were obtained from native material auger cuttings.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 1/18/96 / 1/18/96
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size :** ID 4.25
Rig Type: CME 55
Spoon Size: 2-in.

Northing: 13227636.9788
Easting: 692202.1145
Well Casing Elev.: 594.63 ft.
Corehole Depth:
Borehole Depth: 16.5 ft.
Ground Surface Elev.: 592.25 ft.

Geologist: Ronald D. Kuhn

Well No. MW-159WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.25 ft.									**GROUND SURFACE**	Steel protective casing 3.0' ags, locking cap installed
590	(0-2')		NA	NA	2.0	NA			Medium GRAVEL.	Concrete pad ground surface to 1.5' bgs
	(2-4')		3 7 9 9	16	2.0	2.4			Black fine SAND, damp.	Bentonite seal 1.5' to 4.0' bgs
5	(4-6')		REF	NA	NR	NA			Refusal of split spoon, augered 4.0-6.0' bgs.	2-in diameter Sch. 40 PVC well casing 2.4' to 6.0' bgs
585	(6-8')		6 4 4 5	8	1.6	85.7			Black fine SAND, moist. Gray fine SAND, trace natural organics (roots), slight odor, wet.	
	(8-10')		5 4 4 5	8	1.2	44.0			Gray fine SAND, little Silt, trace shell fragments, trace sheen, slight odor, saturated.	
10	(10-12')		5 3 2 2	5	1.6	5.1			No sheen.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
580	(12-14')		1 1 1 1	2	1.4	3.6				Grade #5 silica sand pack 4.0' to 16.5' bgs
15	(14-16')		WOH (18")	1	2.0	3.2			No shell fragments.	

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engineers & scientists

Remarks:
NA - Not Available. NR - No Recovery. WOH - Weight of Hammer. REF - Refusal. A sheen was noticed on groundwater during development.

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-159WT

Total Depth = 16.5 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 in.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		1	1	2.0	3.2			Gray fine SAND, little Silt, slight odor, saturated.	0.01" Sch. 40 PVC screen 6.0' to 16.0' bgs
		(16-16.5')		1	1	0.5	7.8			Total depth of boring 16.5 ft. bgs.	2-in diameter Sch. 40 PVC sump 16.0' to 16.5' bgs
	575										
20											
	570										
25											
	565										
30											
	560										
35											

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Remarks:
A soil sample submitted for grain size analysis was obtained from 10-12' bgs.

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 4/24/96 / 4/24/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.

Northing: 692196.8989
Easting: 13227699.4627
Well Casing Elev.: 592.00 ft.
Corehole Depth:
Borehole Depth: 16.0 ft.
Ground Surface Elev.: 592.31 ft.

Geologist: Scott A. Powlin

Well No. MW-163WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.31 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
590	(0-2')		8 22 14 15	36	2.0	7.1			Gray fine to coarse SAND, some fine Gravel, loose, dry.	Concrete pad
									Black fine SAND and SILT, trace metal pieces, brown staining, loose, dry.	Grade #5 silica sand drain 1.0' to 2.5' bgs
	(2-4')		5 6 5 8	11	NR	NA			No Recovery.	Bentonite seal 2.5' to 3.5' bgs
5	(4-6')		5 4 2 4	6	1.2	7.0			Black fine SAND and SILT, orange and brown mottling, loose, damp.	2-in diameter Sch. 40 PVC well casing 0.3' to 4.0' bgs
585	(6-8')		3 1 3 4	4	0.3	7.1				0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
	(8-10')		6 3 5 6	8	1.0	5.9			Moist. Tan to gray fine SAND, medium dense, wet.	
10	(10-12')		3 3 2 3	5	2.0	8.5			Abundant shell fragments.	Grade #5 silica sand pack 3.5' to 16.0' bgs
580	(12-14')		2 1 1 2	2	2.0	8.3			Loose.	
15	(14-16')		1 1	2	2.0	7.9				2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

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ENGINEERS & SCIENTISTS

Remarks:
NR - No Recovery. NA - Not Available.

Saturated Zones

Date / Time	Elevation	Depth
4/30/96/1807		7.22 ▼

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-163WT

Total Depth = 16.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		1 1	2	2.0	7.9			Grades to trace shell fragments.	Grade #5 silica sand pack 3.5' to 16.0' bgs
									Total depth of boring 16.0 ft. bgs.	

575
20
570
25
565
30
560
35

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ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
4/30/96/1807		7.22 ▼

Date Start/Finish: 4/24/96 / 4/25/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.

Northing: 692279.7059
Easting: 13227663.3629
Well Casing Elev.: 592.23 ft.
Corehole Depth:
Borehole Depth: 16.0 ft.
Ground Surface Elev.: 592.58 ft.

Geologist: Scott A. Powlin

Well No. MW-164WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.58 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
590	(0-2')								The boring was continuously augered to to 8.0' bgs. See boring log SB-325 for nearest stratigraphic description.	Concrete pad
	(2-4')									Grade #5 silica sand drain 0.5' to 1.5' bgs
5	(4-6')									Bentonite seal 1.5' to 2.5' bgs
	(6-8')									2-in diameter Sch. 40 PVC well casing 0.4' to 4.0' bgs
585	(8-10')		4 3 3 5	6	0.3	32.5			Black fine SAND and SILT, some medium to coarse Sand, loose, damp.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
10	(10-12')		4 2 2 3	4	1.5	32.8			Tan fine SAND and SILT, medium dense, wet.	Grade #5 silica sand pack 2.5' to 16.0' bgs
580	(12-14')		2 1 1 2	2	2.0	26.1			Trace shell fragments, loose.	
15	(14-16')		1 1	3	2.0	18.2				2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

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Remarks:
Geotechnical soil sample from 14-16' bgs was submitted for grain size, moisture content, and bulk density analyses.

Saturated Zones

Date / Time	Elevation	Depth
4/30/96/1810		8.38

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-164WT

Total Depth = 16.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 1	3	2.0	18.2			Tan fine SAND and SILT, trace shell fragments, loose, wet.	Grade #5 silica sand pack 2.5' to 16.0' bgs
									Total depth of boring 16.0 ft. bgs.	

575
20
570
25
565
30
560
35

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth
4/30/96/1810		8.38 ▼

Date Start/Finish: 4/25/96 / 4/25/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 45C
Spoon Size: 2-in.

Northing: 692520.9185
Easting: 13227509.4799
Well Casing Elev.: 591.83 ft.
Corehole Depth:
Borehole Depth: 16.0 ft.
Ground Surface Elev.: 592.19 ft.

Geologist: Scott A. Powlin

Well No. MW-165WT

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.19 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap
590	(0-2')								The boring was continuously augered to to 8.0' bgs. See boring log SB-333 for nearest stratigraphic description.	Concrete pad
	(2-4')									Grade #5 silica sand drain 0.5' to 1.5' bgs
5	(4-6')									Bentonite seal 1.5' to 2.5' bgs
585	(6-8')									2-in diameter Sch. 40 PVC well casing 0.4' to 4.0' bgs
	(8-10')		3 9 3 4	12	1.3	17.5			Black fine SAND and SILT, loose, moist. Wet.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
10	(10-12')		7 5 4 4	9	1.1	27.5			Fine to coarse GRAVEL, angular, wet.	Grade #5 silica sand pack 2.5' to 16.0' bgs
580	(12-14')		3 6 8 11	14	1.2	24.7			Brown SILT, trace medium Sand, gray mottling, hard, moist. Light brown to gray SILT, some Clay and fine to coarse Gravel, damp.	
15	(14-16')		6 6	14	1.0	21.2				2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:
Geotechnical soil sample from 14-16' bgs was submitted for grain size, moisture content, and bulk density analyses.

Saturated Zones

Date / Time	Elevation	Depth
4/30/96/1817		8.30 ▼

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. MW-165WT

Total Depth = 16.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		8 12	14	1.0	21.2			Light brown to gray SILT, some Clay and fine to coarse Gravel, damp.	Grade #5 silica sand pack 2.5' to 16.0' bgs
									Total depth of boring 16.0 ft. bgs.	
575										
20										
570										
25										
565										
30										
560										
35										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth
4/30/96/1817		8.30 ▼

Date Start/Finish: 4/25/96 / 4/25/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size :** ID 4.25
Rig Type: CME 45C
Spoon Size: 2-in.

Northing: 13227512.3649
Easting: 682420.3458
Well Casing Elev.: 592.33 ft.
Corehole Depth:
Borehole Depth: 16.0 ft.
Ground Surface Elev.: 592.59 ft.

Geologist: Scott A. Powlin

Well No. MW-166WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.59 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap; Concrete pad
	(0-2')		5 7 8 9	15	1.3	13.2			Gray fine to coarse GRAVEL, some fine to coarse Sand, loose, dry.	2-in diameter Sch. 40 PVC well casing 0.3' to 4.0' bgs
590	(2-4')		5 8 7 5	15	1.5	25.1			Brown fine SAND, medium dense, damp.	Grade #5 silica sand drain 1.0' to 2.5' bgs
5	(4-6')		2 2 2 3	4	0.2	29.2			Black fine SAND and SILT, medium dense, damp.	Bentonite seal 2.5' to 3.5' bgs
	(6-8')		1 1 1 1	2	1.0	26.3			Brown fine to coarse GRAVEL, some fine to medium Sand, loose, wet.	
585	(8-10')		1 1 1 1	2	1.3	25.3			Black fine SAND and SILT, some metal debris, medium dense, dry.	0.01" Sch. 40 PVC screen 4.0' to 14.0' bgs
10	(10-12')		WOH (12") 1 1	1	1.0	26.0			Loose, moist.	Grade #5 silica sand pack 3.5' to 16.0' bgs
580	(12-14')		1 1 1 4	2	2.0	27.0			Medium dense, wet.	
	(14-16')		3 3	9	1.0	27.6			Olive brown SILT, some Clay and root fibers, soft, wet.	2-in diameter Sch. 40 PVC sump 14.0' to 14.5' bgs
15									Olive brown fine SAND and SILT, medium dense, wet.	
									Loose, wet.	
									Some shell fragments, medium dense.	
									Some black mottling.	
									Brown SILT and CLAY, hard.	

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Remarks:
WOH - Weight of Hammer. Sheen was observed during drilling.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1813		8.65 ▼

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-166WT

Total Depth = 16.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		6 6	9	1.0	27.6			Brown SILT and CLAY, hard.	Grade #5 silica sand pack 3.5' to 16.0' bgs
									Total depth of boring is 16.0' bgs.	

575
20
570
25
565
30
560
35

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engineers & scientists

Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1813		8.65 ▼

Date Start/Finish: 5/02/96 / 5/02/96
Drilling Company: Mateco
Driller's Name: Richard Fair
Drilling Method: Hollow Stem Auger
Bit Size: N/A **Auger Size :** ID 4.25
Rig Type: CME 45C
Spoon Size: 2-in.

Northing: 13227545.9929
Easting: 692285.7432
Well Casing Elev.: 591.92 ft.
Corehole Depth:
Borehole Depth: 16.0 ft.
Ground Surface Elev.: 592.31 ft.

Geologist: Ronald D. Kuhn

Well No. MW-167WT

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.31 ft.									**GROUND SURFACE**	7-in diameter steel protective curb box with sand drain, locking well cap.
	(0-2')		8 9 4 4	13	1.4	9.0			Gray fine to coarse SAND and fine to medium GRAVEL, little Silt, damp.	Concrete pad.
590									Dark gray fine SAND, little Silt, trace fine Gravel, moist.	Grade #5 silica sand drain 0.4' to 1.5' bgs.
	(2-4')		1 1 2 1	3	1.4	2.0			Dark gray fine SAND and SILT, trace coarse Sand, damp.	Bentonite seal 1.5' to 3.0' bgs.
5	(4-6')		1 2 2 1	4	1.6	1.2			Brown fine to medium SAND, trace Silt, damp.	2-in diameter Sch. 40 PVC well casing 0.4' to 5.2' bgs.
585	(6-8')		1 1 1 1	2	1.0	0.9			Dark gray fine SAND and SILT, moist to wet at tip of spoon.	
	(8-10')		2 1 1 2	2	1.4	11.4			Odor, wet.	0.01" Sch. 40 PVC screen 5.2' to 14.7' bgs.
10	(10-12')		2 1 2 1	3	1.8	1.2				Grade #5 silica sand pack 3.0' to 16.0' bgs.
580	(12-14')		2 1 1 2	2	2.0	1.3			Dark gray SILT, trace fine Sand and shells, very soft, moist.	
15	(14-16')		2 1	3	2.0	0.7			Dark gray Silty CLAY, trace fine	2-in diameter Sch. 40 PVC sump 14.7' to 15.0' bgs.

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Remarks:
Analytical soil samples taken at 8-10' and 14-16' bgs were submitted for TCL VOCs, TCL SVOCs, TCL PCBs, and TAL metals analysis. A sheen was observed during drilling.

Water Levels

Date / Time	Elevation	Depth
4/30/96/1825		8.25 !

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. MW-167WT

Total Depth = 16.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')		2 1	3	2.0	0.7			Sand, very soft, slight odor, moist.	Grade #5 silica sand pack 3.0' to 16.0' bgs.
									Total depth of boring 16.0 ft. bgs.	
575										
20										
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth
4/30/96/1825		8.25 ▼

Date Start/Finish: 11-18-97 / 11-18-97
Drilling Company: Rau Drilling
Driller's Name: Rick Rau
Drilling Method: Hollow Stem Auger
Bit Size: -1-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 45-B
Spoon Size: 3-in.

Northing: 691199.209
Easting: 13227510.282
Well Casing Elev.: 593.87 ft.
Corehole Depth: -1 ft.
Borehole Depth: 14.0 ft.
Ground Surface Elev.: 591.30 ft.

Geologist: Matthew Erbe

Well No. MW97-105WT

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.30 ft.										**GROUND SURFACE**	4-in diameter steel protective casing; Concrete pad
	590	(0-2)	S-1 3" sp.	2 5 6 8	11	1.0	<1.0/<1.0			Topsoil, 0 to 0.5'bgs, then Yellow-brown Silty SAND, little concrete, medium to coarse Sand, rootlets, medium dense, dry. (FILL)	Type I Portland Cement/ 5% Bentonite grout (0.7' to 2.5' bgs)
		(2-4)	S-2 3" sp.	6 15 20 45	35	2.0	5.0/64.0				2-in diameter Sch. 40 PVC well casing (approx. 2.0' ags to 4.0' bgs)
5		(4-6)	S-3 3" sp.	15 12 7 8	19	1.1	2.1/62.0			Black fine to medium SAND, trace slag, rootlets, odor, dry. (FILL) Light brown to tan fine SAND, medium dense. CONCRETE at 4.2'bgs.	Hydrated bentonite seal (2.5' to 3.0' bgs)
	585	(6-8)	S-4 3" sp.	11 10 12 15	22	0.3	<1.0/ 100.0			Black fine to medium SAND, slag, glass, dry. (FILL) As above with color change to dark brown. Becomes wet, metal debris on augers, odor.	2-in diameter Sch. 40 PVC 0.01-in slot well screen (4.0' to 14.0' bgs)
		(8-10)	S-5 3" sp.	6 6 6 7	12	1.2	<1.0/32.0			Black fine to coarse SAND, little Silt. (FILL)	
10		(10-12)	S-6 3" sp.	5 8 8 9	16	1.0	<1.0/2.0			Black to dark gray fine SAND, little Silt, trace copper electrical wire pieces, odor. (FILL)	Global #5 sand pack (3.0' to 14.0' bgs)
	580	(12-14)	S-7 3" sp.	7 7 6 8	13	0.5	<1.0/7.2			Gray fine SAND, trace shell fragments, decomposed organics, medium dense.	
15										**End of soil description from SB97-111 at 14.0' bgs. SB97-111 actually terminated at 20.0' bgs.**	

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Remarks:
bgs - Below Ground Surface. NA - Not Available. Well installed adjacent to pilot hole **SB97-111.**

Saturated Zones

Date / Time	Elevation	Depth
		-1
		-1
		-1

Date Start/Finish: 05/19/95 / 05/19/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : 8.25-in.
Rig Type: CME 850 ATV
Spoon Size: -in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 13.4 ft.
Ground Surface Elev.: ft.

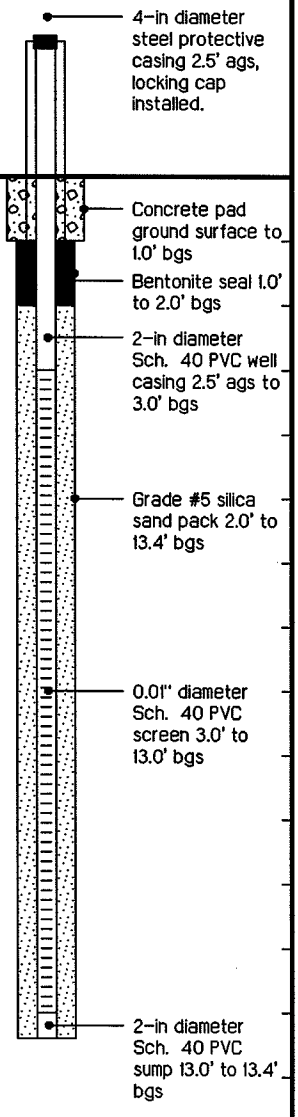
Geologist: Ronald D. Kuhn

Well No. B-2R

Client:
General Moters Coprporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.											
0										GROUND SURFACE	
5	-5										
10	-10										
15	-15										



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Remarks:
Soil descriptions from 0.0' to 30.0' bgs are given on boring log B-2 by Residuals Management Technology, Inc. on November 28, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 01/14/95 / 01/14/95
Drilling Company: Mateco
Driller's Name: Bob Dreyer
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 75
Spoon Size: 2-in.

Northing: 691794.1715
Easting: 13227679.8298
Well Casing Elev.: 594.97 ft.
Corehole Depth:
Borehole Depth: 28 ft.
Ground Surface Elev.: 592.85 ft.

Geologist: Steve French

Well No. B-2B (Aug)

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.85 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking cap installed.
	(0-2')		4 6 12 20	18	1.2	4.3			Orange brown to black fine to medium SAND, medium dense, moist. Trace medium Gravel.	Concrete pad ground surface to 2.0' bgs
590	(2-4')		11 12 5 4	17	0.1	NA				
5	(4-6')		4 5 5 6	10	0.0	NA				Type 1 Portland cement/5% bentonite grout 2.0' to 16.0' bgs
	(6-8')		6 7 4 4	11	1.3	3.5			Black to brown fine to medium SAND, medium dense, moist.	
585	(8-10')		4 5 4 4	9	1.3	5.0			Brown fine to medium SAND, trace shells, loose, wet.	
10	(10-12')		1 1 2 2	3	0.9	2.7			Gray fine to medium SAND, loose, wet.	2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
580	(12-14')		4 4 4 4	8	1.3	2.5			Gray to brown fine to medium SAND, loose, wet.	
15	(14-16')		3 3	5	1.3	3.4			Gray fine to medium SAND, loose, wet.	

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Remarks:
NA - Not Available.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. B-2B (Aug)

Total Depth = 28 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description
		(14-16')		2 1	5	1.3	3.4			Gray fine to medium SAND, little Silt, very loose, wet.
	575	(16-18')		WOH (12") 1 1	1	1.4	3.9			
		(18-20')		1 1 1 1	2	1.2	3.5			Trace Silt, very loose, wet.
20		(20-22')		1 2 2 2	4	1.5	3.4			Loose, wet.
	570	(22-24')		5 6 7 8	13	0.2	NA			
25		(24-26')		4 5 7 8	12	1.2	2.0			Gray to brown CLAY, some Silt, little fine to medium Sand, firm, wet.
		(26-28')		5 6 7 7	13	1.5	1.0			Brown CLAY, trace coarse Sand, some mottling, medium stiff, moist.
	565									Total depth of boring 28.0 ft bgs.
30										
	560									
35										

Well Construction

- Type I Portland cement/5% bentonite grout 2.0' to 16.0' bgs
- Bentonite seal 16.0' to 18.0' bgs
- 2-in diameter Sch. 40 PVC well casing 1.8' ags to 20.0' bgs
- 0.01" Sch. 40 PVC screen 20.0' to 25.0' bgs
- Grade #5 silica sand pack 18.0' to 25.2' bgs
- 2-in diameter Sch. 40 PVC sump 25.0' to 25.2' bgs
- Bentonite seal 25.2' to 28.0' bgs

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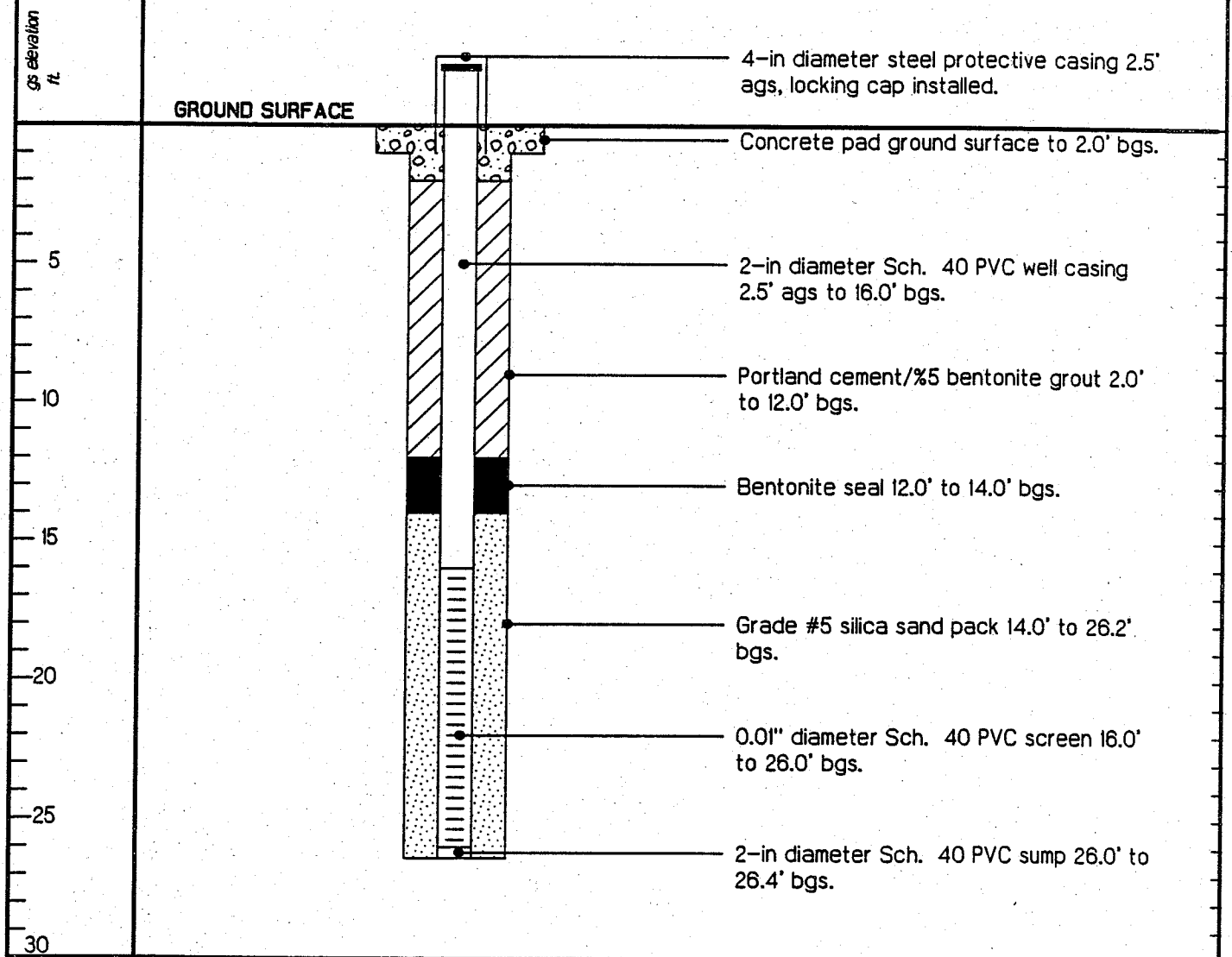
Remarks:
NA - Not Available. WOH - Weight of Hammer.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 05/22/95 – 05/22/95 **Drilling Company:** Stearns **Driller's Name:** Rich Bennett **Drilling Method:** Hollow Stem Auger **Auger Size:** 8.25–in. **Rig Type:** CME 850 ATV	**Borehole Depth:** 26.4 ft. **Geologist:** Ronald D. Kuhn	**Well No. B–3R (replacement)** **Client:** General Moters Coprporation **Location:** Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Well Construction Details



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Remarks:

Soil descriptions from 0.0' to 30.0' bgs are given on boring log B–3 by Residuals Management Technology, Inc. on November 28, 1979.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 01/24/95 - 01/25/95
Drilling Company: Mateco
Driller's Name: Norm Forner
Drilling Method: Hollow Stem Auger
Auger Size: ID 4.25
Rig Type: CME 850 ATV
Spoon Size: 2
Hammer Weight: 140-lb
Height of Fall: 30-in.

Borehole Depth: 18 ft.

Descriptions by: Sabrina Hesford

Boring No. B-3 (Aug) - Boring only

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
gs elevation ft											
0										GROUND SURFACE	
		(0-2')		1 2 2 2	4	1.7	3.4			Black fine to medium SAND, trace slag, moist.	
		(2-4')		5 10 14 17	24	1.5	7.6				
5	-5	(4-6')		4 2 2 6	4	1.4	3.6			Orange fine to medium SAND, some Silt, slightly cohesive, moist.	
		(6-8')		3 4 5 5	9	0.8	4.2			Trace black, green and red glass.	Type 1 Portland cement/5% bentonite grout 0' to 18.0' bgs
		(8-10')		7 10 4 4	14	1.0	48.9			Sheen noticed.	
10	-10	(10-12')		1 3 2 2	5	1.5	28.2				
		(12-14')		1 1 1 1	2	1.0	3.4			Black SILT, soft, wet, trace sheen.	
15	-15	(14-16')		1 2	4	0.5	16.3				

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Remarks:
Due to the fact that a significant sheen was noticed during drilling, the boring was terminated at 18.0' bgs and the boring was grouted to grade. No well was installed.

Saturated Zones

Date / Time	Elevation	Depth
01/24/95		9.0

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Boring No. B-3 (Aug) – Boring c

Total Depth = 18 ft.

DEPTH	ELEVATION	Sample Interval	Spoon Size (in,OD)	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	USCS Code	Geologic Column	Stratigraphic Description	Boring Construction
		(14–16')		2 2	4	0.5	16.3			Dark gray SILT, little to some Clay, trace fine Sand, moist.	
		(16–18')		1 1 2 2	3	2.0	4.5			Gray SILT, little Clay, trace fine Sand, soft, moist.	Type 1 Portland cement/5% bentonite grout 0' to 18.0' bgs
										Total depth of boring 18.0 ft bgs.	
20	-20										
25	-25										
30	-30										
35	-35										

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Remarks:
Apparent Conductivity graph is off-scale from 3.2 to 7.9 feet.

Saturated Zones

Date / Time	Elevation	Depth
01/24/95		9.0 ▼
		▽
		▽

Date Start/Finish: 05/30/95 / 05/30/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 850 ATV
Spoon Size: 2-in.

Northing: 691312.9822
Easting: 13227780.1380
Well Casing Elev.: 596.54 ft.
Corehole Depth:
Borehole Depth: 32 ft.
Ground Surface Elev.: 594.02 ft.

Geologist: Ronald D. Kuhn

Well No. B-3B (Aug)

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	gs elevation 594.02 ft.									**GROUND SURFACE**	4-in diameter steel protective casing 2.0' ags, locking well cap installed
		(0-2')		1 2 2 2	4	1.7	3.4			Black fine to medium SAND, trace slag, moist.	10-in diameter Sch. 40 PVC surface seal casing ground surface to 16.0' bgs
		(2-4')		5 10 14 17	24	1.5	7.6				
	590									Orange fine to medium SAND, some Silt, slightly cohesive, moist.	
5		(4-6')		4 2 2 6	4	1.4	3.6				
		(6-8')		3 4 5 5	9	0.8	4.2			Trace black, green and red glass.	Type 1 portland cement/5% bentonite grout 1.0' to 18.0' bgs
	585	(8-10')		7 10 4 4	14	1.0	48.9				
10		(10-12')		1 3 2 2	5	1.5	28.2				2-in diameter Sch. 40 PVC casing 1.8' ags to 22.2' bgs
		(12-14')		1 1 1 1	2	1.0	3.4			Black SILT, soft, wet.	
	580										
15		(14-16')		1 2	4	0.5	16.3				

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Remarks:
Soil descriptions from 0-18' bgs were taken from boring log B-3 (Aug). Apparent Conductivity graph is off-scale from 3.2 to 7.9 feet.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. B-3B (Aug)

Total Depth = 32 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')		2 2	4	0.5	16.3			Dark gray SILT, little to some Clay, trace fine Sand, moist.	Type I portland cement/5% bentonite grout 1.0' to 18.0' bgs
		(16-18')		1 1 2 2	3	2.0	4.5			Gray SILT, little Clay, trace fine Sand, soft, moist.	2-in diameter Sch. 40 PVC casing 1.8' ags to 22.2' bgs
	575	(18-20')		9 2 1 2	3	1.6	0.0			Brown fine SAND, trace Silt, very loose, wet.	Bentonite seal 18.0' to 20.0' bgs
20		(20-22')		2 2 1 1	3	1.6	0.0				Grade #5 silica sand pack 20.0' to 28.0' bgs
		(22-24')		1 1 1 5	2	1.8	0.0			Brown SILT, little Clay, soft, moist.	
	570	(24-26')		9 4 5 9	9	2.0	0.0			Brown fine to medium SAND, trace fine Gravel, loose, saturated.	0.01" Sch. 40 PVC screen 22.2' to 27.2' bgs
25		(26-28')		5 5 4 5	9	2.0	0.0				
	565	(28-30')		2 6 10 12	16	2.0	0.0			Brown SILT and CLAY, trace fine Gravel, hard, moist.	2-in diameter Sch. 40 PVC sump 27.2' ags to 27.6' bgs
30		(30-32')		2 5 8 11	13	2.0	0.0				Bentonite seal 28.0' to 32.0' bgs
	560									Total depth of boring 32.0 ft bgs.	
35											

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 9-21-98 / 9-21-98
Drilling Company: Rau Drilling
Driller's Name: Rodd Chaperon
Drilling Method: Hollow Stem Auger
Bit Size: -1-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 45-B
Spoon Size: 3-in.

Northing: 27551.31
Easting: 91376.98
Well Casing Elev.: 594.23 ft.
Corehole Depth: -1 ft.
Borehole Depth: 24.0 ft.
Ground Surface Elev.: 590.88 ft.

Geologist: Gordon Hotchkiss

Well No. MW98-108S1

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 590.88 ft.										**GROUND SURFACE**	Riser stick-up (2.5' ags).
	590	(0-2)		7 17 17 20	34	1.5	0.7			Brown to light brown silty CLAY (FILL), very dry with little Sand, trace gravel, dense, crumbles.	Concrete pad.
		(2-4)		14 11 9 7	20	1.2	1.7				Bentonite/cement slurry (0.5 to 12' bgs).
5		(4-6)		5 7 6 5	13	1.0	2.0				
	585	(6-8)		2 1 1 1	2	0.0	NA			No sample recovered - attempt to collect second sample from 6-8 feet, but spoon sinks to eight feet bgs under the weight of spoon and rod. So collect 8-10' sample (see below).	2-in diameter Sch. 40 PVC well casing (2.5' ags to 21.2' bgs).
		(8-10)		3 2 3 2	5	1.2	1.4			Black fine-grained SAND, trace silt, moist to saturated, poorly graded, loose (SP).	
10	580	(10-12)		3 5 5 4	10	1.2	3.5			Gray to dark gray fine-grained SAND, saturated, poorly graded, rope/ hair folicles at 10.2 and 1/8" silty clay seam at 10.8' (SP).	
		(12-14)		2 1 2 2	3	1.5	3.4			As above with 10-20% calcareous shell fragments, increasing silt and clay toward tip (SP).	Hydrated bentonite seal (12.0' to 14.0' bgs).
15		(14-16)		1 2	4	1.2	5.6			As above with trace to little silt and clay (SM).	

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ENGINEERS & SCIENTISTS

Remarks:
bgs - Below Ground Surface. NA - Not Available. ags - Above Ground Surface.

Saturated Zones

Date / Time	Elevation	Depth
9/25/98	584.44	6.44 ▼
11/5/98	584.53	6.35 ▽
		-1 ▽

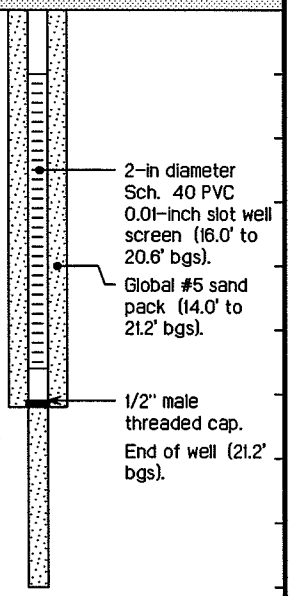
Client:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

Site:
REALM, Inc.

Well No. MW98-108S1

Total Depth = 24.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	575	(14-16)		2 2	4	1.2	5.6			As above with trace to little silt and clay (SM).	
		(16-18)		1 2 3 4	5	1.2	27.0				
		(18-20)		1 2 4 3	6	1.0	230.0			Dark brown highly fiberous wood fragments or peat, dry to moist from 18.2 to 18.8.	
20	570	(20-22)		1 4 5 4	9	1.0	122.0			Dark gray silty CLAY, dry to moist, highly plastic, medium stiff (CL). As above with trace to little fine sand and shell fragments (CL).	
		(22-24)		3 4 5 6	9	1.7	31.4			Gray, stiff, silty CLAY, low to medium plasticity, dry, trace gravel and rootlets (CL).	
25	565									End of boring at 24.0' bgs.	
30	560										
35											



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Remarks:

Saturated Zones

Date / Time	Elevation	Depth
9/25/98	584.44	6.44 ▼
11/5/98	584.53	6.35 ▽
		-1 ▽

Date Start/Finish: 9-21-98 / 9-21-98
Drilling Company: Rau Drilling
Driller's Name: Rodd Chaperon
Drilling Method: Hollow Stem Auger

Auger Size: ID 4.25 in.
Rig Type: CME 45-B
Spoon Size: 3 in.

Northing: 91369.57
Easting: 27439.68
Well Casing: 593.21 feet

Borehole Depth: 13.0 ft.
Ground Surface: 591.00 feet

Geologist: Gordon Hotchkiss

Well No: TW98-109WT

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.00 ft.										**GROUND SURFACE**	Temporary well construction.
	590	(0-2)		NA	NA	1.5	104			Brown, tan to red, fine to medium SAND, well graded, dry, trace gravel.	Native soil (0.0 to 1.0' bgs).
		(2-4)		6 20 8 4	28	1.0	5.2			Brown mottled silty CLAY, very stiff, dry, hard to medium plasticity, trace brick fragments. Concrete fragments from 2.6 to 2.9' bgs.	Bentonite seal (1.0 to 1.5' bgs). 2-in diameter Sch. 40 PVC well casing (2.0' ags to 12' bgs).
5		(4-6)		2 3 4 5	7	1.2	3.6			Dark brown-red fine to medium SAND, little clay, little to some brick fragments 5.1 to 5.2' bgs.	
	585	(6-8)		3 1 2 4	3	1.0	0.0			Brown mottled silty CLAY, dry, highly plastic to non-plastic. 1/8" sand and gravel seam at 6.3', moist to saturated.	2-in diameter Sch. 40 PVC 0.01-inch slot well screen (2.0' to 12.0' bgs).
		(8-10)		2 1 2 6	3	1.5	9.2			Dark brown/black fine SAND, poorly graded moist to saturated, trace clay. Gray fine to medium SAND, poorly graded, saturated, trace clay and silt, very loose.	Global #5 sand pack (1.5' to 12.0' bgs).
10	580	(10-12)		O/WOH 1 2 4	3	1.5	3.2			As above with darker shades of gray.	
		(12-13)		O/WOH 3	3	1.2	43.7			As above, dark gray with trace calcareous shell fragments (<5%) from 12.0 to 12.6 and decreasing to absent in tip. Trace to little clay, saturated.	End of well (12' bgs).
15										End of boring at 13.0' bgs.	

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Remarks:
bgs - Below Ground Surface. ags - Above Ground Surface. NA - Not Available. No sampling performed. Soil and sampling descriptions are from MW98-109S1.

Saturated Zones

Date / Time	Elevation	Depth
9/25/98	585.15	5.85 ▼
11/5/98	584.36	6.64 ▽

Date Start/Finish: 9-23-98 / 9-23-98
Drilling Company: Rau Drilling
Driller's Name: Rodd Chaperon
Drilling Method: Hollow Stem Auger
Bit Size: -1-in. **Auger Size :** ID 4.25-in.
Rig Type: CME 45-B
Spoon Size: 3-in.

Northing: 27435.36
Easting: 91370.09
Well Casing Elev.: 593.13 ft.
Corehole Depth: -1 ft.
Borehole Depth: 20.0 ft.
Ground Surface Elev.: 591.03 ft.

Geologist: Gordon Hotchkiss

Well No. MW98-109S1

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.03 ft.										**GROUND SURFACE**	Riser stick-up (2' ags).
	590	(0-2)		NA	NA	1.5	104			Brown, tan to red, fine to medium SAND, well graded, dry, trace gravel. (FILL)	Concrete pad.
		(2-4)		6 20 8 4	28	1.0	5.2			Brown mottled silty CLAY, very stiff, dry, hard to medium plasticity, trace brick fragments. Concrete fragments from 2.6 to 2.9' bgs. (FILL)	Bentonite grout (0.0 to 10' bgs).
5		(4-6)		2 3 4 5	7	1.2	3.6			Dark brown-red fine to medium SAND, little clay, little to some brick fragments 5.1 to 5.2' bgs. (FILL)	
	585	(6-8)		3 1 2 4	3	1.0	0.0			Brown mottled silty CLAY, dry, highly plastic to non-plastic. 1/8" sand and gravel seam at 6.3', moist to saturated. (CL)	
		(8-10)		2 1 2 6	3	1.5	9.2			Dark brown/black fine SAND, poorly graded moist to saturated, trace clay. (SP)	2-in diameter Sch. 40 PVC well casing (approx. 2.0' ags to 18' bgs).
10										Gray fine to medium SAND, poorly graded, saturated, trace clay and silt, very loose. (SP)	
	580	(10-12)		O/WOH 1 2 4	3	1.5	3.2			As above with darker shades of gray.	Hydrated bentonite seal (10' to 11.5' bgs).
		(12-14)		O/WOH 3 1 1	4	1.2	43.7			As above, dark gray with trace calcareous shell fragments (<5%) from 12.0 to 12.6 and decreasing to absent in tip. Trace to little clay, saturated.	
15		(14-16)		2 3	6	1.5	35.5			Dark gray fine to medium SAND, some to trace Clay, 1/2" sandy clay at 14.5' bgs, with calcareous shells from 14 to 14.5' bgs, saturated.	2-in diameter Sch. 40 PVC 0.01-inch slot well screen (13.0' to 18.0' bgs).

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Remarks:
bgs - Below Ground Surface. NA - Not Available. WOH - Weight of Hammer. Driller's note 1 foot of heave in hole.

Saturated Zones

Date / Time	Elevation	Depth
9/25/98	584.19	6.84 ▼
11/5/98	584.36	6.67 ▽
		-1 ▽

Client:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

Site:
REALM, Inc.

Well No. MW98-109S1

Total Depth = 20.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16)		3 5	6	1.5	35.5			Dark gray fine to medium SAND, some to trace Clay.	
	575										
		(16-18)		5 3 6 9	9	1.5	134			Dark gray silty CLAY, dry, medium plasticity. (CL)	Global #5 sand pack (11.5' to 18.0' bgs).
		(18-20)		4 10 14 20	24	2.0	167				End of well (18' bgs).
20										End of boring at 20.0' bgs.	
	570										
25											
	565										
30											
	560										
35											

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth
9/25/98	584.19	6.84 ▼
11/5/98	584.36	6.67 ▽
		-1 ▽

Date Start/Finish: 11-18-97 / 11-18-97
Drilling Company: Rau Drilling
Driller's Name: Rick Rau
Drilling Method: Hollow Stem Auger
Bit Size: -1-in. **Auger Size** : ID 4.25-in.
Rig Type: CME 45-B
Spoon Size: 3-in.

Northing: 691200.936
Easting: 13227514.626
Well Casing Elev.: 593.50 ft.
Corehole Depth: -1 ft.
Borehole Depth: 21.0 ft.
Ground Surface Elev.: 591.40 ft.

Geologist: Matthew Erbe

Well No. MW97-105S1

Client:
REALM, Inc.

Location:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 591.40 ft.									**GROUND SURFACE**	4-in diameter steel protective casing
590	(0-2)	S-1 3" sp.	2 5 6 8	11	1.0	<1.0/<1.0			Topsoil, 0 to 0.5'bgs, then Yellow-brown Silty SAND, little concrete, medium to coarse Sand, rootlets, medium dense, dry. (FILL)	Concrete pad to 1.0' bgs
	(2-4)	S-2 3" sp.	6 15 20 45	35	2.0	5.0/64.0			Black fine to medium SAND, trace slag, rootlets, odor, dry. (FILL) Light brown to tan fine SAND, medium dense. CONCRETE at 4.2'bgs.	
5	(4-6)	S-3 3" sp.	15 12 7 8	19	1.1	2.1/62.0			Black fine to medium SAND, slag, glass, dry. (FILL)	Type I Portland Cement/ 5% Bentonite grout (1.0' to 12.0' bgs)
585	(6-8)	S-4 3" sp.	11 10 12 15	22	0.3	<1.0/ 100.0			As above with color change to dark brown. Becomes wet, metal debris on augers, odor.	
	(8-10)	S-5 3" sp.	6 6 6 7	12	1.2	<1.0/32.0			Black fine to coarse SAND, little Silt. (FILL)	2-in diameter Sch. 40 PVC well casing (approx. 2.0' ags to 16.0' bgs)
10	(10-12)	S-6 3" sp.	5 8 8 9	16	1.0	<1.0/2.0			Black to dark gray fine SAND, little Silt, trace copper electrical wire pieces, odor. (FILL)	
580	(12-14)	S-7 3" sp.	7 7 6 8	13	0.5	<1.0/7.2			Gray fine SAND, trace shell fragments, decomposed organics, medium dense.	Hydrated bentonite seal (12.0' to 14.0' bgs)
15	(14-16)	S-8 3" sp.	5 6	11	1.1	<1.0/<1.0				

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Remarks:
bgs - Below Ground Surface. NA - Not Available Well installed adjacent to pilot hole **SB97-111.**

Saturated Zones

Date / Time	Elevation	Depth
		-1
		-1
		-1

Client:
Former Delphi Plant 2 Peninsula Property, Saginaw, Michigan

Site:
REALM, Inc.

Well No. MW97-105S1

Total Depth = 21.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16)	S-8 3" sp.	5 4	11	1.1	<1.0/<1.0			Gray fine SAND, trace shell fragments, decomposed organics, medium dense.	2-in diameter Sch. 40 PVC 0.01-inch slot well screen (16.0' to 21.0' bgs)
	575	(16-18)	S-9 3" sp.	2 4 6 6	10	1.7	<1.0/<1.0				Global #5 sand pack (16.0' to 21.0' bgs)
		(18-20)	S-10 3" sp.	2 4 4 6	8	1.2	<1.0/<1.0			Many shell fragments.	
20		(20-22)	S-11 3" sp.	2 4 6 6	10	1.5	<1.0/<1.0			Gray CLAY, medium to high plasticity, trace fine to coarse subrounded Sand, rootlets, stiff.	
	570									Gray silty SAND, little to trace Clay, shell fragments.	
										End of soil descriptions from SB97-111 at 21.0' bgs. SB97-111 actually terminated at 26.0' bgs.	
25											
	565										
30											
	560										
35											

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth
		-1 ▼
		-1 ▽
		-1 ▽

Date Start/Finish: 11/5/01
Drilling Company: Rau Drilling
Driller's Name: Rod Chaperon, Greg Stokes
Drilling Method: HSA
Sampler Size: 2" ID x 2'

Auger Size: 4 1/4" ID
Rig Type: CME 550 ATV
Sampling Method: split-spoons
Hammer Weight: 140 lb.

Northing: 691434.24
Easting: 13227398.62
Well Casing: 593.06

Borehole Depth: 14.0 feet
Ground Surface: 590.53

Geologist: Ron Kuhn

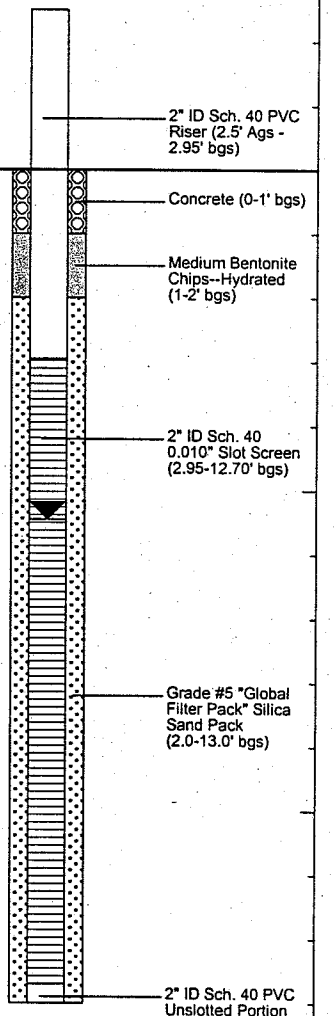
Well No: MW01-118WT

Client: General Motors

Location:
REALM, Inc.
Peninsula Area Property
Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows / 6 Inches	N - Value	Recovery (feet)	PID Headspace (ppm)	Analytical Test	Geologic Column	Stratigraphic Description
0	590	1	0-2	2 8 10 15	18	1.7	0.2			Black fine SAND, little Silt, trace Organics. (Foundry Sand) (Fill) Brown fine SAND, little medium to coarse Sand, little Silt, trace Brick, trace fine Gravel, damp. (Fill)
		2	2-4	6 6 6 20	12	1.0	1.9			Black fine SAND, little Silt interbedded with brown fine Sand, little medium to coarse Sand, trace Brick, damp 1-2" sequencing. (Fill)
5	585	3	4-6	8 6 5 5	11	1.2	2.4			Wet at tip of spoon. Dark brown fine SAND and SILT, trace Organics, saturated. (Native)
		4	6-8	1 1 3 3	4	2.0	2.4			Very gray fine SAND, little Silt, saturated. (Native) Trace Shells.
		5	8-10	6 6 5 4	11	1.6	3.1			
10	580	6	10-12	1 2 3 2	5	1.3	1.7			
		7	12-14	1 1 3 3	4	1.6	3.4			
15	575									

Boring Construction



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Remarks: ags/bgs = above/below ground surface;
NA = Not Applicable/Not Available.
Analytical soil sample for TCI VOCs, SVOCs, PCBs, TAL Inorganics to STL Ohio.

Water Levels

Date	Elev.	Depth
11/6/01		5.45

Project: 86991.001 Template: j:\rockware\logplot2001\logfiles\86991\saginaw.ldf
Data File:MW01-118WT.dat Date: 2/4/02

Date Start/Finish: 06/24/96 / 06/24/96
Drilling Company: Raymer
Driller's Name: Rich Bloom and Mike Kats
Drilling Method: Water-rotary
Bit Size: OD 28-in. **Auger Size** : -in.
Rig Type: Ingersoll Rand TH-60
Spoon Size: -in.

Northing: 692341.8559
Easting: 13227657.8766
Well Casing Elev.: 591.61 ft.
Corehole Depth:
Borehole Depth: 21.0 ft.
Ground Surface Elev.: 592.18 ft.

Geologist: Ronald D. Kuhn

Well No. RW-1

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.18 ft.									**GROUND SURFACE**	
	(0-2')								Brown fine to medium SAND.	Concrete pad 0.0'to 1.0' bgs
590	(2-4')									Topsoil 1.0' to 3.0' bgs
	(4-6')									18-in diameter steel riser 0.6' to 5.0' bgs
5										Filter fabric on top of gravel fill 3.0' bgs
585	(6-8')									
	(8-10')									18-in diameter steel vertical slot screen, slots are 0.25-in wide with 7 to 8-in vertical spacings and 5.5-in horizontal spacings, 5.0' to 15.0' bgs
10	(10-12')									
580	(12-14')									Fine to medium angular gravel 3.0' to 15.0' bgs
15	(14-16')									

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Remarks:
Slight sheen observed on soil cuttings.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. RW-1

Total Depth = 21.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
	(14-16')								Driller indicates CLAY.	
575	(16-18')									
	(18-20')									
20	(20-21')									
									Total depth of boring 21.0 ft bgs.	
570										
25										
565										
30										
560										
35										

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Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 06/19/96 / 06/19/96
Drilling Company: Raymer
Driller's Name: Rich Bloom and Mike Kats
Drilling Method: Water-rotary
Bit Size: OD 28-in. **Auger Size** : -in.
Rig Type: Ingersoll Rand TH-60
Spoon Size: -in.

Northing: 692269.0042
Easting: 13227641.2556
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 23.0 ft.
Ground Surface Elev.: 592.32 ft.

Geologist: Ronald D. Kuhn

Well No. RW-3

Client:
General Motors Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.32 ft.										**GROUND SURFACE**	
		(0-2')								Concrete slab.	
	590	(2-4')								Black fine foundry SAND.	18-in diameter steel riser 0.0' to 5.0' bgs
5		(4-6')									
	585	(6-8')									18-in diameter, 0.040-in galvanized wire wound Johnson slot screen 5.0' to 15.0' bgs
		(8-10')									
10		(10-12')								Gray fine SAND.	
	580	(12-14')									Fine to medium pea gravel 20.0' bgs up to grade
15		(14-16')									

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Remarks:
Sheens evidenced on soil cuttings throughout drilling Black fine foundry SAND 0.5' to 10.0' bgs
Gray fine SAND 10.0' to 20.0' bgs

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Motors Corporation

Well No. RW-3

Total Depth = 23.0 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
		(14-16')									
	575	(16-18')									18-in diameter steel sump 15.0' to 20.0' bgs
		(18-20')									
20		(20-22')								Gray SILT and CLAY.	
	570	(22-23')									Fine to medium pea gravel and cave-in 20.0' to 23.0'bgs
										Total depth of boring 23.0 ft bgs.	
25											
	565										
30											
	560										
35											

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Remarks:
Gray SILT and CLAY 20.0' to 23.0' bgs

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 06/24/96 / 06/24/96
Drilling Company: Raymer
Driller's Name: Rich Bloom and Mike Kats
Drilling Method: Water-rotary
Bit Size: OD 28 **Auger Size :**
Rig Type: Ingersoll Rand TH-60
Spoon Size: -in.

Northing: 13227520.4702
Easting: 692351.2166
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 21.0 ft.
Ground Surface Elev.: 592.27 ft.

Geologist: Ronald D. Kuhn

Well No. RW-4

Client:
General Motors Corporation

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation 592.27 ft.									**GROUND SURFACE**	
590	(0-2')								Brown fine to medium SAND.	18-in diameter steel riser 0.0' to 5.0' bgs
	(2-4')									
5	(4-6')									
585	(6-8')									
	(8-10')									18-in diameter, 0.040-in galvanized wire wound Johnson slot screen 5.0' to 15.0' bgs
10	(10-12')									
580	(12-14')									Fine to medium pea gravel 0.5' to 21.0' bgs
15	(14-16')									

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Remarks:
Slight sheen observed on soil cuttings. Brown fine to medium SAND 0.0' to 14.0' bgs Driller indicates CLAY 14.0 to 21.0' bgs

Water Levels

Date / Time	Elevation	Depth

Site:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Client:
General Motors Corporation

Well No. RW-4

Total Depth = 21.0 ft.

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
575	(14–16')								Driller indicates CLAY.	18-in diameter steel sump 15.0' to 20.0' bgs
	(16–18')									
20	(18–20')									
	(20–21')								Total depth of boring 21.0 ft bgs.	
570										
25										
565										
30										
560										
35										

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Remarks:

Water Levels

Date / Time	Elevation	Depth

Date Start/Finish: 11/07/95 / 11/07/95 **Excavating Company:** Mateco (Backhoe) **Operator's Name:** Vince Bennett, Jim Page **Backhoe:**	**Northing:** **Easting:** **Completion Depth:** ft. **Ground Surface Elev.:** 0.0 ft. **Field Person (s) :** Ray A. Wagner	**Test Pit No. TP-1&2** **Client:** Saginaw Malleable Iron Plant Property **Location:** General Motors Corporation

DEPTH	ELEVATION	Sample	Sample/Int/Type	PID (ppm) Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Notes
gs elevation 0.0 ft.								
0							**GROUND SURFACE**	
		(0-2')		0.0			Black/green CINDERS and SAND (FILL).	Test pit south of Secondary Settling Pond.
							Layer of very dense SLAG at 4" bgl (FILL).	
		(2-4')		0.0			Black fine to coarse SAND, cinders, brick fragments, and metal gears (FILL).	Test pit dimensions: Surface: 21'x4.0' Base: 21'x3.0' Final Depth: 4.5'
		(4-4.5')		0.0			Layer of gray SLAG at 2.5' bgl (FILL).	Background PID was 0.2 ppm.
5	-5						Terminated test pit at 4.5' bgl.	Water encountered at 4.0' bgl.
								Backfilled 4.5' bgl to surface.
10	-10							* 6' long layer of slag in the center of the test pit continued as anomaly. Slag layer varies between 0.5-1.2' thick.
15	-15							

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Remarks:
Photos on film roll 1:01-07. bgl=below ground level.

TABLE II

SUMMARY OF WELL CONSTRUCTION DATA

WELL #	TOP OF PVC PIPE ELEVATION	TOP OF UPPER BENTONITE SEAL/ GROUND SURFACE	BOTTOM OF UPPER BENTONITE SEAL ELEVATION	TOP OF LOWER BENTONITE SEAL ELEVATION	BOTTOM OF LOWER BENTONITE SEAL ELEVATION	TOP OF WELL POINT ELEVATION	BOTTOM OF WELL POINT ELEVATION	BOTTOM BORING ELEVATI
X1A	592.52	590.7	588.7	-	-	581	578	577
X1B	592.82	590.7	588.7	575	573	570	567	566
X1C	592.88	590.7	588.7	550	548	545	542	541
X2A	594.24	592.1	590.1	-	-	583.5	580.5	580
X2B	594.21	592.1	590.1	577	575	570	567	562
X2C	594.25	592.1	590.1	552	550	549	546	545
X3A	594.89	594 (approx.)	592	-	-	577	574	573
X3B	595.12	594 (approx.)	592	565	563	560	557	556
X4A	584.12	584.2	582.2	-	-	578	575	574
X4B	584.59	584.2	582.2	551	549	547	544	543
X5A	597.68	595.9	593.9	-	-	587	584	583
X5B	597.20	595.9	593.9	584.5	582.5	580.5	577.5	577
X5C	597.48	595.9	593.9	558	556	554.5	551.5	551
X6	647.53	645.9	642	-	-	639	566	566

TABLE II (cont'd)

SUMMARY OF WELL CONSTRUCTION DATA

WELL #	TOP OF PVC PIPE ELEVATION	TOP OF UPPER BENTONITE SEAL/ GROUND SURFACE	BOTTOM OF UPPER BENTONITE SEAL ELEVATION	TOP OF LOWER BENTONITE SEAL ELEVATION	BOTTOM OF LOWER BENTONITE SEAL ELEVATION	TOP OF WELL POINT ELEVATION	BOTTOM OF WELL POINT ELEVATION	BOTTOM OF BORING ELEVATION
X13A	583.08	581.9	580	-	-	576	573	572
X13B	583.10	581.9	580	566	564	562	559	542
X14A	583.68	582.3	580	-	-	579.5	576.5	576
X14B	583.72	582.3	580	565	563	561	558	557
X15A	585.79	583.8	582	582	580	578	575	574
X15B	585.86	583.8	582	552	550	548	545	544
X16A	589.61	585.8	585	582	581	580	577	575
X16B	588.83	585.9	585	567	566	565.5	562.5	561
X17	589.2	585.8	585	583	582	581.2	578.2	561
X18	590.12	586.2	585	584	583	582	579	561
X19A	588.58	586.7	586	582	581	580.5	577.5	575
X19B	589.88	586.2	585	567	566	565.5	562.5	564
X20	590.48	586.4	585	584	583	581.7	578.7	561

1016X-7300

LOG OF TEST BORING

RESIDUALS MANAGEMENT TECHNOLOGY, INC.
PROJECT: G.M. Central Foundry Division
LOCATION: Saginaw , Michigan
DRILLED BY: Soil & Materials Engineers

JOB NO.: 1016X-7300
BORING NO.: X1
SURFACE ELEV.: 590.7
SHEET NO.: 1/2

SAMPLE No.	Type	Recovery	Moisture	N	Depth	VISUAL CLASSIFICATION and Remarks
1	SS	X	M	11		Black & Brown, Loose to Medium Dense, Mixed FILL, Foundry Sand, Slag, Cinders, Metal, Wood, Miscellaneous Organics
2	SS	X	M	6	5	
3	SS	X	M	5	10	
* 4	SS	X	W	4	15	OK Brown, Loose to Medium Dense, Fine SAND, Trace Silt (SP)
5	SS	X	W	9	20	
6	SS	X	M	44	25	Brown, Hard, Silty CLAY, Trace Sand and Gravel (CL)
7	SS	X	M	25	30	
8	SS	X	M	9	35	Brown, Stiff, Silty CLAY, Trace Sand and Gravel (CL)
9	SS	X	M	9	40	(CONTINUED)

GENERAL NOTES

START: 6-2-80
COMPLETE: 6-2-80
RIG: 35
CREW CHIEF: J.H.
DRILLING METHOD: HSA 0-50'

WATER LEVEL OBSERVATIONS

WHILE DRILLING: 10'
UPON COMPLETION: 30'
TIME AFTER DRILLING:
DEPTH OF WATER:
DEPTH OF CAVE-IN:

Date Start/Finish: 01/10/95 / 01/10/95
Drilling Company: Stearns
Driller's Name: Bryan Marshall
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : 8.25-in.
Rig Type: CME 850 ATV
Spoon Size: -in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 12.4 ft.
Ground Surface Elev.: ft.

Geologist: James I. Saxton

Well No. X-1CR (replacement)

Client:
General Moters Corporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft. 0										GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed.
											2-in diameter Sch. 40 PVC well casing 2.5' ags to 2.0' bgs.
											Concrete pad ground surface to 1.0' bgs.
											Bentonite seal 1.0' to 1.5' bgs.
5	-5										Grade #5 silica sand pack 1.5' to 12.4' bgs.
10	-10										0.01" diameter Sch. 40 PVC screen 2.0' to 12.0' bgs.
15	-15										2-in diameter Sch. 40 PVC sump 12.0' to 12.4' bgs.

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-1 by Residuals Management Technology, Inc. on June 02, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Date Start/Finish: 05/26/95 / 05/26/95
Drilling Company: Stearns
Driller's Name: Rich Bennett
Drilling Method: Hollow Stem Auger
Bit Size: N/A-in. **Auger Size** : 8.25-in.
Rig Type: CME 850 ATV
Spoon Size: -in.

Northing:
Easting:
Well Casing Elev.: ft.
Corehole Depth:
Borehole Depth: 49.1 ft.
Ground Surface Elev.: ft.

Geologist: Ronald D. Kuhn

Well No. X-1CR2 (replacement)

Client:
General Moters Coprporation

Location:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
gs elevation ft.											
0										GROUND SURFACE	4-in diameter steel protective casing 2.5' ags, locking cap installed.
											Concrete pad ground surface to 2.0' bgs.
5	-5										
10	-10										2-in diameter Sch. 40 PVC well casing 2.5' ags to 43.7' bgs.
15	-15										

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:
Soil descriptions from 0.0' to 50.0' bgs are given on boring log X-1 by Residuals Management Technology, Inc. on June 02, 1980.

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green
Pt. Landfill and Drum Remediation Area

Site:
General Moters Coprporation

Well No. X-1CR2 (replacement)

Total Depth = 49.1 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
0	-5										
20	-20										Portland cement/%5 bentonite grout 2.0' to 38.5' bgs.
25	-25										
30	-30										2-in diameter Sch. 40 PVC well casing 2.5' ags to 43.7' bgs.
35	-35										Portland Cement/%5 bentonite grout 38.5' to 49.1' bgs.

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth

Client:
Malleable Iron Plant Property, Green Pt. Landfill and Drum Remediation Area

Site:
General Moters Coprporation

Well No. X-1CR2 (replacement)

Total Depth = 49.1 ft.

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Blows/6 In.	N	Recovery (ft.)	Headspace	Geotechnical Test	Geologic Column	Stratigraphic Description	Well Construction
40	-40										Bentonite seal 38.5' to 41.5' bgs.
45	-45										Grade #5 silica sand pack 41.5' to 49.1' bgs.
50	-50										0.01" diameter Sch. 40 PVC screen 43.7' to 48.7' bgs.
55	-55										2-in diameter Sch. 40 PVC sump 48.7' to 49.1' bgs.

BLASLAND, BOUCK & LEE
ENGINEERS & SCIENTISTS

Remarks:

Saturated Zones

Date / Time	Elevation	Depth

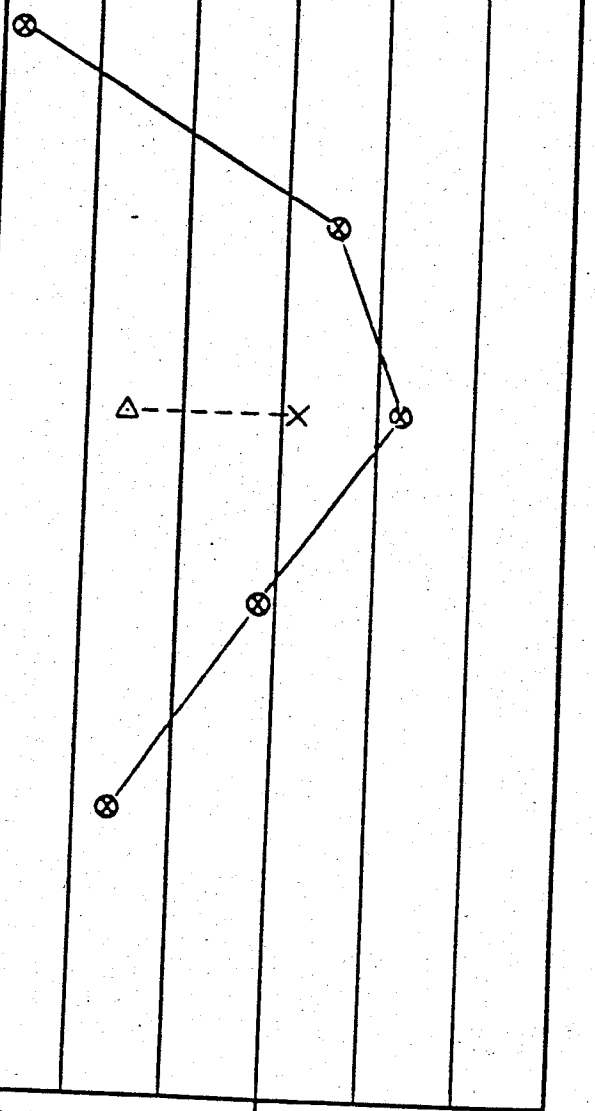
BORING LOG NO. X-20

OWNER General Motors Corporation	ARCHITECT / ENGINEER Residual Management Technology
LOCATION Saginaw, Michigan	PROJECT NAME G.M. Central Foundry Landfill

SAMPLE NUMBER	SAMPLE TYPE	SAMPLE DISTANCE	DEPTH IN FEET	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS/FT³
				SURFACE ELEVATION 586.4	
1	SS		5	Fine Sand-Trace Silt-Trace Clay-Occ. Shell Fragments-w/Layers of Black Silt & Organic Material-Wet - Loose (SM)	
2	SS		10		
3	SS		15	Sandy Clay - Some Silt - Occ. Gravel - Brown Changing to Gray @ 20' (CL)	
4	SS		20		
5	SS		25	END OF BORING	

LEGEND
- STANDARD PENETRATION, "N" (BLOWS/FT.)
- NATURAL WATER CONTENT, %
- ATTERBERG LIMITS P.L.% L.L.%
- UNCONFINED COMPRESSIVE STRENGTH (tsf)
- CALIBRATED HAND PENETROMETER STRENGTH (tsf)

SCALE
- ○ ○ 1 2 3 4 5 tsf
- ● ⊗ 10 20 30 40 50 %, N



NOTE: The indicated stratification lines are approximate. In situ, the transition between materials may be gradual.

MINERAL WELL PERMIT NO. 581-782-173

WATER LEVEL OBSERVATIONS

1.5' WHILE SAMPLING OR WHILE DRILLING
1.5' IMMEDIATELY AFTER COMPLETION
— — AFTER COMPLETION

BORING STARTED	2/21/79
BORING COMPLETED	2/21/79
RIG: BOMB	DRAWN BY: LE
FOREMAN: JH	APPROVED: HB/RH
JOB: BC/5434	SHEET: 1 of 1

SME soil and materials engineers, inc

Appendix B

Groundwater and Surface Water Sampling Logs – September and December 2004

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80°F, CLEAR, LIGHT WIND

Well ID. MW97-104WT
Date: 9/16/04
Time In: 1315 Time Out: 1630

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	9.29		
Total Depth	(feet)	16.47		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION Pump on @ 1329

Length of Water Column:	(feet)	7.18
Volume of Water in Well:	(gal)	1.17
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		40
Total Volume Removed:	(gal)	1.05

Conversion Factors

gallons per foot of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐
Sample ID: MW97-104WT(09160
Sample Time: 1405
MS/MSD: Yes ☑ No ☐
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: 21

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐	____
Tubing Used:	Teflon ☐	Polyethylene ☑			
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐	____
Did well go dry?	Yes ☐	No ☑	Water Quality Meter Type:	YSI 556 & HACH TURBIDIMETER	

Time / Parameter	1 Initial	2	3	4	5	6	7	8	9
	1338	1343	1348	1353	1358	1403	1408		
Volume Purged ~~(gal)~~ L	1.00	1.50	2.00	2.50	3.00	3.50	4.00		
Depth to Water (ft. TIC)	9.53	9.54	9.54	9.54	9.54	9.54	9.54		
Temperature (°C)	16.52	16.31	16.20	16.18	16.05	16.08	16.02		
pH	7.66	7.52	7.49	7.43	7.38	7.34	7.32		
Conductance (mS/cm)	1.835	1.791	1.771	1.760	1.754	1.751	1.754		
Dissolved Oxygen mg/L)	0.38	0.20	0.12	0.09	0.05	0.05	0.03		
Turbidity (NTU)	4.76	4.19	3.10	2.25	2.12	1.95	1.76		
ORP (mV)	-157.3	-157.7	-159.3	-158.4	-158.3	-156.8	-156.1		

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: Federal Express ☑ Other: ____
Sample was: shipped day of sampling ☑ sent on ____
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80°F, CLEAR, LIGHT WIND

Well ID. MW97-1043I
Date: 9/16/04
Time In: 1315 Time Out: 1630

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	8.83		
Total Depth	(feet)	21.75		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION — PUMP ON @ 1329

Length of Water Column:	(feet)	12.92
Volume of Water in Well:	(gal)	2.10
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	—
Minutes of Pumping:		43
Total Volume Removed:	(gal)	1.13

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☐
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW97-1043I (09160404)
Sample Time: 1414
MS/MSD: Yes ☑ No ☐
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: 21

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 w/ HACH TURBIDIMETER

Time / Parameter	1 Initial	2	3	4	5	6	7	8	9
	1339	1344	1349	1354	1359	1404	1409	1414	
Volume Purged ~~(gal)~~ L	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
Depth to Water (ft. TIC)	9.19	9.19	9.19	9.19	9.19	9.19	9.19	9.19	
Temperature (°C)	15.74	15.66	15.59	15.61	15.48	15.39	15.17	15.43	
pH	6.99	6.84	6.85	6.90	6.94	6.98	7.00	7.02	
Conductance (mS/cm)	4.377	4.401	4.374	4.347	4.316	4.297	4.252	4.273	
Dissolved Oxygen mg/L)	2.38	0.98	0.74	0.58	0.44	0.34	0.33	0.30	
Turbidity (NTU)	3.02	2.17	1.55	1.31	1.32	1.45	1.30	1.52	
ORP (mV)	-121.5	-120.2	-120.3	-121.0	-121.7	-124.7	-129.0	-131.3	

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☑ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site* — September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 85°F, CLEAR, MODERATE WIND.

Well ID. MW97-1055I
Date: 9/15/04
Time In: 1300 Time Out: 1500

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	9.06		
Total Depth	(feet)	23.01		

check where appropriate
Well Type: Flushmount [ ] Stick-Up [✓]
Well Locked: Yes [✓] No [ ]
Measuring Point Marked: Yes [✓] No [ ]
Well Diameter: 1" [ ] 2" [✓] Other: ____

WELL WATER INFORMATION PUMP ON @ 1320

Length of Water Column:	(feet)	13.95
Volume of Water in Well:	(gal)	2.27
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		31
Total Volume Removed:	(gal)	.90

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs x 3 [✓]
TCL SVOCs x 2 [✓]
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, x 1 Pb, Hg, Ni, Se, Ag, Zn) [✓]
Dissolved Site Metals (As, Ba, Cd, Cr, x 1 Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) [✓]
Sample ID: MW97-1055I (091
Sample Time: 1351
MS/MSD: Yes [ ] No [✓]
Duplicate: Yes [ ] No [✓]
Duplicate ID: —
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer [ ] Peristaltic [✓] Grudfos [ ] Other Pump [ ] ____
Tubing Used: Teflon [ ] Polyethylene [✓]
Sampling Method: Bailer [ ] Peristaltic [✓] Grudfos [ ] Other Pump [ ] ____
Did well go dry? Yes [ ] No [✓]
Water Quality Meter Type: YSI 556 w/ HACH

Time / Parameter	1 1331 Initial	2 1336	3 1341	4 1346	5 1351	6	7	8	9
Volume Purged (gal)	1.00	1.50	2.00	2.50	3.00				
Depth to Water (ft. TIC)	9.35	9.35	9.35	9.35	9.35				
Temperature (°C)	16.15	16.03	16.02	16.11	15.67				
pH	6.57	6.54	6.56	6.56	6.56				
Conductance (mS/cm)	2.660	2.656	2.653	2.652	2.656				
Dissolved Oxygen mg/L)	0.45	0.26	0.20	0.18	0.17				
Turbidity (NTU)	3.72	3.54	3.12	2.90	2.71				
ORP (mV)	-86.6	-91.4	-93.4	-95.5	-97.6				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MFK

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: [✓] Federal Express [ ] Other: ____
Sample was [ ] shipped day of sampling [✓] sent on 9/16
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 85°F, CLEAR, ~~LIGHT~~ MFK MODERATE WIND

Well ID. MW97-105WT
Date: 9/15/04
Time In: 1305 Time Out: 1500

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	9.55		
Total Depth	(feet)	16.40		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION Pump on @ 1320

Length of Water Column:	(feet)	6.85
Volume of Water in Well:	(gal)	1.12
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	mL/~~MW (GPM)~~	100
Minutes of Pumping:		35
Total Volume Removed:	(gal)	.95

Conversion Factors

gallons per foot of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW97-105WT 09/15
Sample Time: 1355
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 w/ HACH TURBIDITY METER

Time / Parameter	1	2	3	4	5	6	7	8	9
	1330 initial	1335	1340	1345	1350	1355			
Volume Purged ~~(gal)~~ L	1.00	1.50	2.00	2.50	3.00	3.50			
Depth to Water (ft. TIC)	9.90	9.91	9.91	9.91	9.91	9.91			
Temperature (°C)	17.46	~~17.52~~ MFK 17.22	17.44	17.46	17.15	17.10			
pH	7.05	6.87	6.85	6.71	6.63	6.61			
Conductance (mS/cm)	2.464	2.567	2.631	2.661	2.653	2.635			
Dissolved Oxygen mg/L)	1.61	1.14	1.15	1.09	1.24	1.28			
Turbidity (NTU)	5.69	6.01	5.51	5.10	4.89	4.63			
ORP (mV)	-145.0	-141.5	-137.5	-132.1	-124.3	-122.5			

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

MFK

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☑ sent on 9/16
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80°F, CLEAR, MODERATE WIND.

Well ID: ~~MW~~ TW98-108WT
Date: 9/15/04
Time In: 1725 Time Out: 1930

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	8.95		
Total Depth	(feet)	15.00		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION Pump on @ 1740

Length of Water Column:	(feet)	6.05
Volume of Water in Well:	(gal)	0.968
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	—
Minutes of Pumping:		31
Total Volume Removed:	(gal)	0.81

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 & HACH TURBIDITY METER

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: TW98-108WT
Sample Time: 1811
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: —
Total Bottles: 7

Time / Parameter	1 1751 Initial	2 1756	3 1801	4 1806	5 1811	6	7	8	9
Volume Purged (gal)	1.0	1.5	2.0	2.5	3.0				
Depth to Water (ft. TIC)	9.09	9.09	9.09	9.09	9.09				
Temperature (°C)	17.20	16.62	16.60	16.81	16.93				
pH	7.01	7.11	7.11	7.11	7.11				
Conductance (mS/cm)	0.858	0.857	0.857	0.856	0.857				
Dissolved Oxygen mg/L)	0.42	0.19	0.17	0.12	0.11				
Turbidity (NTU)	5.58	5.11	4.07	4.01	3.47				
ORP (mV)	-143.3	-150.3	-150.7	-151.2	-152.9				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☐ shipped day of sampling ☑ sent on 9/16
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80°F, CLEAR, MODERATE WIND

Well ID. MW98-108S1
Date: 9/15/04
Time In: 1725 Time Out: 1930

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	9.72		
Total Depth	(feet)	24.95		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION Pump on @ 1740

Length of Water Column:	(feet)	15.23
Volume of Water in Well:	(gal)	2.44
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	—
Minutes of Pumping:		35
Total Volume Removed:	(gal)	0.97

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: YSI 556 & HACH TURBIDITY

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW98-108S1 (091504)
Sample Time: 1815
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: —
Total Bottles: 7

Time / Parameter	1 Initial	2	3	4	5	6	7	8	9
	1750	1755	1800	1805	1810	1815			
Volume Purged (gal)	1.0	1.5	2.0	2.5	3.0	3.5			
Depth to Water (ft. TIC)	10.00	10.00	10.01	10.01	10.02	10.02			
Temperature (°C)	16.78	16.06	15.99	16.19	16.12	15.96			
pH	7.08	6.78	6.75	6.75	6.73	6.70		MFK	
Conductance (mS/cm)	2.649	3.104	3.111	3.115	3.130	3.143			
Dissolved Oxygen mg/L)	3.65	0.85	0.73	0.62	0.55	0.52			
Turbidity (NTU)	4.25	3.34	1.99	1.77	2.04	1.95			
ORP (mV)	-151.8	-108.4	-105.2	-103.2	-101.7	-101.9			

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)		MFK	
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: _____
Sample was ☐ shipped day of sampling ☑ sent on 9/16
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 85°F, CLEAR, MODERATE WIND

Well ID. TW98-109WT
Date: 9/15/04
Time In: 1505 Time Out: 1715

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	8.92		
Total Depth	(feet)	15.00		

check where appropriate
Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" ☐ 2" ☑ Other: ___

WELL WATER INFORMATION — Pump on @ 1520

Length of Water Column:	(feet)	6.08
Volume of Water in Well:	(gal)	0.97
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	—
Minutes of Pumping:		37
Total Volume Removed:	(gal)	0.97

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: TW98-109WT(091504
Sample Time: 1557
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: —
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		
Tubing Used:	Teflon ☐	Polyethylene ☑				
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: YSI 561 w/ HACH TURBIDIMETER

Time / Parameter	1 1532 Initial	2 1537	3 1542	4 1547	5 1552	6 1557	7	8	9
Volume Purged (gal)	1.0	1.5	2.0	2.5	3.0	3.5			
Depth to Water (ft. TIC)	9.07	9.07	9.07	9.07	9.07	9.07			
Temperature (°C)	16.67	16.95	16.91	17.04	16.99	16.86			
pH	6.666	6.69	6.76	6.87	6.89	6.87			
Conductance (mS/cm)	2.505	2.511	2.552	2.560	2.565	2.598			
Dissolved Oxygen mg/L)	0.67	0.53	0.43	0.40	0.36	0.34			
Turbidity (NTU)	15.5	12.3	6.94	5.08	5.34	6.18			
ORP (mV)	-107.5	-110.3	-115.1	-120.4	-121.1	-121.0			

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ___
Sample was ☐ shipped day of sampling ☑ sent on 9/16
Chain of Custody Signed By: MF

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 85° F, CLEAR, MODERATE WIND.

Well ID. MW98-1095I
Date: 9/15/04
Time In: 1505 Time Out: 1715

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	8.35		
Total Depth	(feet)	20.15		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION — PUMP ON @ 1520

Length of Water Column:	(feet)	11.3
Volume of Water in Well:	(gal)	1.80
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	—
Minutes of Pumping:		30
Total Volume Removed:	(gal)	0.79

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW98-1095I(0915)
Sample Time: 1550
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐	____
Tubing Used:	Teflon ☐	Polyethylene ☑			
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐	____

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: YSI 556 w/ HACH TURBIDIMETER

Time / Parameter	1 1530 Initial	2 1535	3 1540	4 1545	5 1550	6	7	8	9
Volume Purged (gal)	1.0	1.5	2.0	2.5	3.0				
Depth to Water (ft. TIC)	9.41	9.30	9.30	9.30	9.30				
Temperature (°C)	15.05	15.49	15.82	15.86	15.82				
pH	6.85	6.84	6.83	6.80	6.79				
Conductance (mS/cm)	3.903	3.889	3.887	3.868	3.845				
Dissolved Oxygen mg/L)	0.38	0.26	0.21	0.19	0.17				
Turbidity (NTU)	2.14	2.08	2.32	1.99	1.76				
ORP (mV)	-130.8	-130.7	-130.1	-128.1	-128.9				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

1530 REDUCED FLOW RATE FROM 200 mL/MIN TO 100 mL/MIN.

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: Federal Express ☑ Other: ____
Sample was shipped day of sampling ☐ sent on 9/16 ☑
Chain of Custody Signed By: MTK

REALM Peninsula Area Property, Saginaw, MI
Site

September 2004
Event

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 60F Cloudy

Well ID. MW 98-110 WT (091704)
Date: 9-17-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	8.49 (feet)			
Total Depth	15.05 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION

Length of Water Column:	6.56 (feet)	
Volume of Water in Well:	1.06 (gal)	
Pumping Rate of Pump:	(mL/min)	
Pumping Rate of Pump:	100 (GPM)	
Minutes of Pumping:	20	
Total Volume Removed:	2.0 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑ 3
TCL SVOCs ☑ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW 98/110 WT (091
Sample Time: 1130
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: ____

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: ____

Time / Parameter	1 1100 Initial	2 1105	3 1110	4 1115	5 1120	6	7	8	9
Volume Purged (gal)	Initial	0.5L	1.0L	1.5L	2.0L				
Depth to Water (ft. TIC)	8.60	8.60	8.60	8.60	8.60				
Temperature (°C)	15.47	15.58	15.48	15.68	15.57				
pH	7.33	7.33	7.32	7.32	7.31				
Conductance (mS/cm)	1.826	1.801	1.785	1.761	1.739				
Dissolved Oxygen mg/L)	0.47	0.50	0.48	0.34	0.31				
Turbidity (NTU)	10.3	6.48	4.37	4.78	5.94				
ORP (mV)	-131.1	-133.4	-134.8	-136.3	-137.4				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: ____
Shipped Via: ☐ Federal Express ☐ Other: ____
Sample was ☐ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: ____

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 55° Cloudy

Well ID. ~~MW98-111~~ MW98-111 Dup
Date: 9-18-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	8.52 (feet)			
Total Depth	15.20 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column:	6.46 (feet)	
Volume of Water in Well:	1.05 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	20	
Total Volume Removed:	2.0 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW98-111 Dup (EB)
Sample Time: 0915
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: _____

Time / Parameter	1 0850 Initial	2 0855	3 0900	4 0905	5 0910	6 ~~0915~~	7	8	9
Volume Purged (gal)	Initial	0.5 L	1.0 L	1.5 L	2.0 L	~~2.5 L~~			
Depth to Water (ft. TIC)	8.60	8.60	8.60	8.60	8.60	~~8.60~~			
Temperature (°C)	14.02	14.11	14.43	14.60	14.64	~~14.66~~			
pH	8.33	8.29	8.29	8.31	8.31	~~6.95~~			
Conductance (mS/cm)	3.059	3.061	3.047	3.049	3.047	~~3.055~~			
Dissolved Oxygen mg/L)	1.15	0.38	0.25	0.18	0.23				
Turbidity (NTU)	14.4	9.82	7.35	6.92	6.94				
ORP (mV)	-149.5	~~-138~~	-118.0	-114.5	-106.2				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: _____
Shipped Via: ☐ Federal Express ☐ Other: _____

Sample was ☐ shipped day of sampling ☐ sent on _____

Chain of Custody Signed By: _____

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 55°F Cloudy

Well ID. MW98-111SE
Date: 9-17-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	8.30 (feet)			
Total Depth	19.95 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column:	11.65 (feet)	
Volume of Water in Well:	1.81 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	40	
Total Volume Removed:	4.0L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW98-111SE0917
Sample Time: 0935
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Did well go dry? Yes ☐ No ☑ Water Quality Meter Type:

Time / Parameter	1 0850 Initial	2 0855	3 0900	4 0905	5 0910	6 0915	7 0920	8 0925	9 0930
Volume Purged (gal)	Initial	0.5 L	1.0 L	1.5 L	2.0 L	2.5	3.0	3.5	4.0 L
Depth to Water (ft. TIC)	9.20	9.20	9.20	9.20	9.20	9.20	9.20	9.20	9.20
Temperature (°C)	13.71	13.82	13.90	13.94	14.00	14.02	14.0	13.98	14.01
pH	7.00	6.99	6.98	6.96	6.96	6.93	6.86	6.84	6.83
Conductance (mS/cm)	4.136	4.117	4.104	4.086	4.079	4.140	4.299	4.410	4.464
Dissolved Oxygen mg/L)	0.97	0.50	0.35	0.23	0.18	0.18	0.16	0.16	0.16
Turbidity (NTU)	51.6	31.1	25.2	21.2	17.7	14.1	11.8	9.89	9.98
ORP (mV)	-130.7	-135.4	-135.0	-134.1	-134.1	-134.2	-131.5	-130.5	-130.0

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory:
Shipped Via: ☐ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☐ sent on
Chain of Custody Signed By:

REALM Peninsula Area Property, Saginaw, MI — Site

September 2004 — Event

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 60F Cloudy

Well ID: MW 98-110 SE
Date: 9-17-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	7.55 (feet)			
Total Depth	20.10 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column:	12.55 (feet)	
Volume of Water in Well:	2.04 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	20	
Total Volume Removed:	2.0L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW 98-110 SE 091
Sample Time: 1125
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles:

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type:

Time / Parameter	1 11:00 Initial	2 1105	3 1110	4 1115	5 1120	6	7	8	9
Volume Purged (gal)	Initial	0.5L	@ 1.0L	1.5L	2.0L				
Depth to Water (ft. TIC)	7.65	7.65	7.65	7.65	7.65				
Temperature (°C)	15.78	15.64	15.41	15.16	14.94				
pH	7.42	7.39	7.37	7.35	7.28				
Conductance (mS/cm)	1.509	1.487	1.453	1.530	1.776				
Dissolved Oxygen mg/L)	0.51	0.38	0.26	0.33	0.25				
Turbidity (NTU)	9.12	6.04	5.58	5.03	4.86				
ORP (mV)	-148.5	-149.2	-151.9	-151.9	-144.0				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory:
Shipped Via: ☐ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☐ sent on
Chain of Custody Signed By:

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 75°F, CLEAR, LIGHT WIND,

Well ID. MW01-118WT
Date: 9/16/04
Time In: 1020 Time Out: 1300

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	8.91		
Total Depth	(feet)	15.22		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☑ NO LOCK
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION Pump on @ 1033

Length of Water Column:	(feet)	6.31
Volume of Water In Well:	(gal)	1.03
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	—
Minutes of Pumping:		50
Total Volume Removed:	(gal)	1.31

Conversion Factors

gallons per foot of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW01-118WT (0916C
Sample Time: 1123
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: —
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: YSI 556 w/ HACH TURBIDIMETER

Time / Parameter	1 Initial	2	3	4	5	6	7	8	9
	1043	1048	1053	1058	1103	1108	1113	1118	1123
Volume Purged (~~gal~~ L)	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
Depth to Water (ft. TIC)	9.15	9.17	9.18	9.19	9.19	9.19	9.19	9.19	9.19
Temperature (°C)	16.43	16.13	16.29	16.29	16.35	16.40	16.07	16.22	16.30
pH	7.05	7.00	7.06	7.10	7.13	7.15	7.15	7.16	7.19
Conductance (mS/cm)	2.384	2.552	2.638	2.711	2.778	2.837	2.866	2.891	2.922
Dissolved Oxygen mg/L)	0.94	0.55	0.46	0.41	0.38	0.35	0.34	0.32	0.30
Turbidity (NTU)	5.63	4.47	4.31	4.10	3.99	3.48	3.02	1.79	2.12
ORP (mV)	-1.7	-57.3	-74.3	-83.3	-91.4	-101.6	-105.8	-109.5	-112.6

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)		MFK	
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☑ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: MFK

PP
1/2

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 75°F, CLEAR, LIGHT WIND.

Well ID. MW04-11851
Date: 9/16/04
Time In: 1020 Time Out: 1300

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	10.86		
Total Depth	(feet)	20.73		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION — Pump on @ 1033

Length of Water Column:	(feet)	9.87
Volume of Water in Well:	(gal)	1.61
Pumping Rate of Pump:	(mL/min)	75
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		66
Total Volume Removed:	(gal)	~~1.38~~ 1.44 MFK

Conversion Factors

gallons per foot of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW04-11851 09/16/04
Sample Time: 1149
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 w/ HACH TURBIMETER

Time / Parameter	1 1044 Initial	2 1049	3 1054	4 1059	5 1104	6 1109	7 1114	8 1119	9 1124
Volume Purged (gal)	1.0	1.38	1.76	2.14	2.52	2.90	3.28	3.66	4.04
Depth to Water (ft. TIC)	12.20	11.91	12.29	12.40	12.45	12.10	12.21	12.40	12.47
Temperature (°C)	17.08	17.98	18.18	18.11	18.33	18.63	19.20	18.02	17.92
pH	7.13	7.08	6.87	6.90	6.92	6.89	6.88	6.86	6.88
Conductance (mS/cm)	5.419	5.083	6.148	5.956	5.789	5.953	5.939	6.389	6.244
Dissolved Oxygen mg/L)	0.40	0.31	0.29	0.16	0.20	0.18	0.20	0.15	0.12
Turbidity (NTU)	25.1	17.9	9.89	7.89	7.11	6.57	6.16	5.41	5.29
ORP (mV)	-116.9	-118.9	-114.3	-117.4	-118.0	-119.2	-119.0	-118.5	-116.9

Time / Parameter	10 1129	11 1134	12 1139
Volume Purged (gal)	4.42	4.80	5.18
Depth to Water (ft. TIC)	12.61	12.75	12.83
Temperature (°C)	17.41	17.09	17.11
pH	6.93	6.99	6.99
Conductance (mS/cm)	6.091	5.938	5.844
Dissolved Oxygen mg/L)	0.09	0.08	0.08
Turbidity (NTU)	5.67	5.15	5.39
ORP (mV)	-117.3	-119.3	-119.5

MISCELLANEOUS OBSERVATIONS/PROBLEMS

* 1044 - REDUCED FLOW RATE FROM 100 mL/min TO 75 mL/min.
* 1049 - PUMP FAILS - REPAIRED.
* 1109 - PUMP STOPS AGAIN - FIX

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☑ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: MFK

PP
2/2

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 75°F, CLEAR, LIGHT WIND

Well ID. MW04-1181
Date: 9/16/04
Time In: 1026 Time Out: 1300

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)			
Total Depth	(feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION

Length of Water Column:	(feet)	SEE PP #1
Volume of Water in Well:	(gal)	
Pumping Rate of Pump:	(mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		
Total Volume Removed:	(gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____ SEE PP #1
Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: ____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐
TCL SVOCs ☐
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐
Sample ID: ____
Sample Time: ____
MS/MSD: Yes ☐ No ☐
Duplicate: Yes ☐ No ☐
Duplicate ID: ____
Total Bottles: ____

Time / Parameter	1	2	3	4	5	6	7	8	9
	1144 Initial	1149							
Volume Purged (gal)	5.56	5.94							
Depth to Water (ft. TIC)	12.88	12.94							
Temperature (°C)	17.18	16.94							
pH	6.94	6.97							
Conductance (mS/cm)	5.839	5.861							
Dissolved Oxygen mg/L)	0.06	0.06							
Turbidity (NTU)	5.53	5.48							
ORP (mV)	-119.1	-118.8							

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☑ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 75°F Cloudy

Well ID: MW04-119WT
Date: 9-16-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	9.10 (feet)			
Total Depth	17.00 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION

Length of Water Column:	7.90 (feet)	
Volume of Water in Well:	1.28 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	55	
Total Volume Removed:	5.5 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		
Tubing Used:	Teflon ☐	Polyethylene ☑				
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		

Did well go dry? Yes ☐ No ☐ Water Quality Meter Type: ____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW04-119WT (9/16 0)
Sample Time: 11:50
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: 7

Time / Parameter	1 1050 Initial	2 1055	3 1100	4 1105	5 1110	6 1115	7 1120	8 1125	9 1130
Volume Purged (gal)	Initial	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
Depth to Water (ft. TIC)	9.10	9.15	9.15	9.15	9.15	9.15	9.15	9.17	9.17
Temperature (°C)	18.79	18.94	19.32	19.62	19.68	19.60	14.71	20.06	20.24
pH	7.36	7.36	7.37	7.38	7.38	737	7.3=1	7.32	7.31
Conductance (mS/cm)	1.473	4.416 7	1.478	1.494	1.513	1.514	1.491	1.4187	1.493
Dissolved Oxygen mg/L)	0.23	0.15	0.27	0.22	0.16	0.13	0.14	0.13	0.12
Turbidity (NTU)	159	130	90.4	64.4	45.3	42.0	27.2	20.5	20.1
ORP (mV)	-192.6	-194.1	-195.3	-196.8	-197 7	-195.1	-188.3	-172.2	-186.5

Time / Parameter	10 1135	11 1140	12 1145
Volume Purged (gal)	4.5	5.0	5.5
Depth to Water (ft. TIC)	9.20	9.20	9.20
Temperature (°C)	20.511	20.51	20.58
pH	7.31	7.31	7.30
Conductance (mS/cm)	1.495	1.497	1.501
Dissolved Oxygen mg/L)	0.12	0.12	0.11
Turbidity (NTU)	15.0	11.0	9.67
ORP (mV)	-179,8	-186.0	-189.7

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: ____
Shipped Via: ☐ Federal Express ☐ Other: ____
Sample was ☐ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: ____

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 75°F Cloudy

Well ID. MW01-119SI
Date: 9-16-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	8.79 (feet)			
Total Depth	28.40 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column:	19.61 (feet)	
Volume of Water in Well:	3.20 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	105 min	
Total Volume Removed:	10.5 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		
Tubing Used:	Teflon ☐	Polyethylene ☑				
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		

Did well go dry? Yes ☐ No ☐ Water Quality Meter Type:

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW01-119SI (DUP/60)
Sample Time:
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: 12:40
Total Bottles: 7

Time / Parameter	1 1050 Initial	2 1055	3 1100	4 1105	5 1110	6 1115	7 1120	8 1125	9 1130
Volume Purged (gal)	Initial	0.5	1.0 L	2.5 L	2.0 L	2.5	3.0	3.5	4.0
Depth to Water (ft. TIC)	9.25	9.30	9.30	9.30	9.31	9.32	9.32	9.35	9.35
Temperature (°C)	17.27	17.28	17.54	17.33	17.11	17.01	17.05	2.15	7.07
pH	7.12	7.10	7.11	7.10	7.09	7.08	7.09	7.08	7.07
Conductance (mS/cm)	1.858	1.873	1.882	1.894	1.895	1.885	1.898	1.895	1.897
Dissolved Oxygen mg/L)	0.52	0.58	0.25	0.19	0.17	0.16	0.14	0.12	0.10
Turbidity (NTU)	67.7	46.1	43.3	42.2	44.6	43.8	28.1	46.6	46.2
ORP (mV)	-127.4	-128.6	-130.0	-130.9	-130.7	-130.4	-132.6	-130.6	-129.8

Time / Parameter	10 1135	11 1140	12 1145
Volume Purged (gal)	4.5	5.0	5.5
Depth to Water (ft. TIC)	9.38	9.40	9.40
Temperature (°C)	16.95	16.69	16.67
pH	7.07	7.06	7.06
Conductance (mS/cm)	1.895	1.887	1.880
Dissolved Oxygen mg/L)	0.10	0.10	0.09
Turbidity (NTU)	41.2	39.0	42.2
ORP (mV)	-129.8	-129.4	-128.9

MISCELLANEOUS OBSERVATIONS/PROBLEMS

Page 1 of 2

SAMPLE DESTINATION

Laboratory:
Shipped Via: ☐ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☐ sent on
Chain of Custody Signed By:

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak

Well ID. MW-01-11951

Job Number: 869.91.001

Date:

Weather:

Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)			
Total Depth	(feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☐

Well Locked: Yes ☐ No ☐

Measuring Point Marked: Yes ☐ No ☐

Well Diameter: 1" ☐ 2" ☐ Other: ___

WELL WATER INFORMATION

Length of Water Column:	(feet)	
Volume of Water in Well:	(gal)	
Pumping Rate of Pump:	(mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		
Total Volume Removed:	(gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:

TCL VOCs ☐

TCL SVOCs ☐

Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐

Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐

Sample ID: ___

Sample Time: ___

MS/MSD: Yes ☐ No ☐

Duplicate: Yes ☐ No ☐

Duplicate ID: ___

Total Bottles: ___

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☐ Grudfos ☐ Other Pump ☐ ___

Tubing Used: Teflon ☐ Polyethylene ☐

Sampling Method: Bailer ☐ Peristaltic ☐ Grudfos ☐ Other Pump ☐ ___

Did well go dry? Yes ☐ No ☐ Water Quality Meter Type: ___

Time / Parameter	1 Initial	2	3	4	5	6	7	8	9
	11:50	11:55	12:00	12:05	12:10	12:15	1220	12 25	12:30
Volume Purged (gal)	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
Depth to Water (ft. TIC)	9.40	9.40	9.40	9.40	9.43	9.45	9.47	9.49	9.53
Temperature (°C)	16.64	16.36	16.56	16.31	16.43	16.48	16.32	16.25	16.35
pH	7.05	7.04	7.03	7.03	7.02	7.04	7.00	7.00	6.98
Conductance (mS/cm)	1.874	1.881	1.880	1.877	1.856	1.876	1.880	1.880	1.882
Dissolved Oxygen mg/L)	0.08	0.08	0.07	0.09	0.08	0.07	0.05	0.07	0.07
Turbidity (NTU)	36.6	30.6	27.4	23.7	19.7	17.8	15.2	13.0	11.21
ORP (mV)	-128.8	-128.0	-127.8	-126.7	-126.0	-126.2	-124.9	-124.9	-124.6

Time / Parameter	10	11	12
	12:35		
Volume Purged (gal)	10.5		
Depth to Water (ft. TIC)	9.55		
Temperature (°C)	16.14		
pH	6.94		
Conductance (mS/cm)	1.883		
Dissolved Oxygen mg/L)	0.07		
Turbidity (NTU)	9.53		
ORP (mV)	-125.2		

MISCELLANEOUS OBSERVATIONS/PROBLEMS

Page 2 of 2

SAMPLE DESTINATION

Laboratory: ___

Shipped Via: ☐ Federal Express ☐ Other: ___

Sample was ☐ shipped day of sampling ☐ sent on ___

Chain of Custody Signed By: ___

REALM Peninsula Area Property, Saginaw, MI — *Site* | September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 70° F Cloudy

Well ID. MW04-121 MT
Date: 9-16-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	10.37 (feet)			
Total Depth	18.40 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION

Length of Water Column:	8.03 (feet)	
Volume of Water in Well:	1.30 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	40	
Total Volume Removed:	4.0 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: ____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1

Sample ID: MW04-121MT (09/16/04)
Sample Time: 09:10
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: ____

Time / Parameter	1 0815 Initial	2 0820	3 0825	4 0830	5 0835	6 0840	7 0845	8 0850	9 0855
Volume Purged (gal)	Initial	0.5L	1.0L	1.5L	2.0L	2.5L	3.0L	3.5L	4.0L
Depth to Water (ft. TIC)	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40
Temperature (°C)	16.26	16.44	16.42	16.43	16.52	16.73	16.75	16.93	16.97
pH	7.86	7.87	7.95	8.01	8.01	8.02	8.00	7.94	7.95
Conductance (mS/cm)	1.112	1.107	1.105	1.104	1.0999	1.092	1.086	1.087	1.087
Dissolved Oxygen mg/L)	0.44	0.27	0.23	0.18	0.23	0.20	0.20	0.20	0.18
Turbidity (NTU)	134	70.6	62.3	36.0	27.0	19.5	14.5	11.1	7.22
ORP (mV)	-212.9	-216.8	-219.8	-221.4	-196.9	-199.5	-216.3	-219.0	-220.4

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

____ ral Express ☐ Other: ____ Sample was ☐ shipped day of sampling ☐ sent on ____ Chain of Custody Signed By: ____

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 70°F Cloudy

Well ID. MW04-1215I
Date: 9-16-04
Time In: Time Out:

WELL INFORMATION

	TIC	TOC	BGS
Depth to Water 11.71 (feet)			
Total Depth 25.14 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column: 13.43 (feet)	
Volume of Water in Well: 2.1 (gal)	
Pumping Rate of Pump: NA (mL/min)	
Pumping Rate of Pump: (GPM)	
Minutes of Pumping: 55	
Total Volume Removed: 6.5 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____
Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: _____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐3
TCL SVOCs ☐2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐1
Sample ID: MW04-1215I (691)
Sample Time: 09:25
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles:

Time / Parameter	1 08:15 Initial	2 0820	3 0825	4 0830	5 0835	6 0840	7 0845	8 0850	9 0855
Volume Purged (gal)	Initial	0.5 L	1.0L	1.5L	2.0L	2.5L	3.0L	3.5L	4.0L
Depth to Water (ft. TIC)	12.05	12.15	12.15	12.15	12.15	12.15	12.15	12.15	12.15
Temperature (°C)	15.92	15.79	15.56	15.52	15.47	15.48	15.58	15.70	15.66
pH	6.73	6.71	6.71	6.71	6.73	6.73	6.75	6.76	6.76
Conductance (mS/cm)	3.030	2.895	2.957	2.932	2.917	2.898	2.883	2.873	2.858
Dissolved Oxygen (mg/L)	3.93	0.63	0.43	0.31	0.29	0.24	0.21	0.18	0.18
Turbidity (NTU)	191	729	58.9	56.6	43.2	38.5	29.8	25.5	19.2
ORP (mV)	-81.8	-86.2	-89.1	-90.7	-91.9	-92.4	-88.0	-87.4	-91.2

Time / Parameter	10 0900	11 0905	12 0910
Volume Purged (gal)	4.5L	5.0L	5.5L
Depth to Water (ft. TIC)	12.15	12.17	12.19
Temperature (°C)	15.76	15.83	15.95
pH	6.76	6.76	6.77
Conductance (mS/cm)	2.851	2.844	2.842
Dissolved Oxygen (mg/L)	0.16	0.14	0.18
Turbidity (NTU)	16.8	14.3	9.71
ORP (mV)	-86.8	-86.5	-87.9

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: _____
Shipped Via: ☐ Federal Express ☐ Other: _____
Sample was ☐ shipped day of sampling ☐ sent on _____
Chain of Custody Signed By: _____

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80° Sunny

Well ID: MW04-122SD
Date: 9-16-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	10.65 (feet)			
Total Depth	14.57 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☐ No ☑
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION

Length of Water Column:	8.92 (feet)	
Volume of Water in Well:	1.45 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	40	
Total Volume Removed:	4.0L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑ 5
TCL SVOCs ☑ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW04-122SD 09/16
Sample Time: 1445
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		
Tubing Used:	Teflon ☐	Polyethylene ☑				
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type:

Time / Parameter	1 14:00 Initial	2 1405	3 1410	4 1415	5 1420	6 1425	7 1430	8 1435	9 1440
Volume Purged (gal)	Initial	0.5	1.0	1.5	2.0	2.5	3.0L	3.5L	4.0L
Depth to Water (ft. TIC)	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Temperature (°C)	16.31	16.02	16.18	16.21	15.84	15.93	15.77	15.80	15.73
pH	6.61	6.62	6.63	6.62	6.62	6.62	6.62	6.64	6.67
Conductance (mS/cm)	9.028	9.142	9.188	9.257	9.307	9.346	1.321	9.054	9.032
Dissolved Oxygen mg/L)	0.50	0.43	0.29	0.26	0.19	0.18	0.15	0.14	0.12
Turbidity (NTU)	162	86.1	50.5	37.2	24.8	17.4	12.7	11.2	9.74
ORP (mV)	-89.5	-88.0	-88.6	-88.2	-87.3	-87.0	-88.1	-87.4	-90.0

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory:
Shipped Via: ☐ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☐ sent on
Chain of Custody Signed By:

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80F Sunny

Well ID. MW04-122 WT
Date: 9-16-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	10.35 (feet)			
Total Depth	17.70 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☐
Well Locked: Yes ☐ No ☐
Measuring Point Marked: Yes ☐ No ☐
Well Diameter: 1" ☐ 2" ☐ Other: ____

WELL WATER INFORMATION

Length of Water Column:	7.35 (feet)	
Volume of Water in Well:	1.19 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	20	
Total Volume Removed:	2.0 L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW04-122WT(0916)
Sample Time: 14:25
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles:

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐	
Tubing Used:	Teflon ☐	Polyethylene ☑			
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐	

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type:

Time / Parameter	1 Initial	2 1405	3 1410	4 1415	5 1420	6	7	8	9
Volume Purged (gal)	Initial	0.5	1.0	1.5	2.0				
Depth to Water (ft. TIC)	10.55	10.60	10.61	10.65	10.70				
Temperature (°C)	17.28	17.04	16.83	16.45	16.42				
pH	6.77	6.84	6.91	7.00	7.05				
Conductance (mS/cm)	6.955	6.178	5.509	4.836	4.546				
Dissolved Oxygen mg/L)	0.33	0.90	0.30	0.20	0.19				
Turbidity (NTU)	48.4	29.0	17.5	11.8	8.75				
ORP (mV)	-75.4	-76.4	-82.3	-82.9	-83.7				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory:
Shipped Via: ☐ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☐ sent on
Chain of Custody Signed By:

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 70°F, OVERCAST, LIGHT WIND

Well ID. MW04-~~124~~ 123 WT
Date: 9/16/04
Time In: 0745 Time Out: 1015

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	6.44		
Total Depth	(feet)	20.50		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION — PUMP ON @ 0800

Length of Water Column:	(feet)	14.06
Volume of Water in Well:	(gal)	2.29
Pumping Rate of Pump:	(mL/min)	75
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		65
Total Volume Removed:	(gal)	~~1.71~~ 1.36

MFK

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 w/ HACH TURBIDIMETER

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☐
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑ 123
Sample ID: MW04-124WT
Sample Time: 0905
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID: ____
Total Bottles: ____

Time / Parameter	1 0810 Initial	2 0815	3 0820	4 0825	5 0830	6 0835	7 0840	8 0845	9 0850
Volume Purged (gal)	1.0	1.38	1.76	2.14	2.52	2.90	3.28	3.66	4.04
Depth to Water (ft. TIC)	11.65	11.87	12.04	12.20	12.36	12.50	12.63	12.71	12.79
Temperature (°C)	15.52	15.44	15.24	15.30	15.30	15.36	15.43	15.47	15.52
pH	6.83	6.81	6.78	6.76	6.75	6.74	6.74	6.74	6.73
Conductance (mS/cm)	2.082	2.111	2.219	2309	2.356	2.450	2.494	2.530	2.565
Dissolved Oxygen mg/L)	0.59	0.39	0.29	0.23	0.23	0.20	0.21	0.19	0.20
Turbidity (NTU)	8.44	7.38	6.92	5.93	6.14	5.52	5.44	5.21	5.09
ORP (mV)	-74.1	-77.1	-81.7	-84.1	-86.0	-88.3	-90.3	-92.0	-91.9

Time / Parameter	10 0855	11 0900	12 0905
Volume Purged (gal)	4.42	4.80	5.18
Depth to Water (ft. TIC)	12.85	12.90	12.95
Temperature (°C)	15.61	15.66	15.70
pH	6.72	6.72	6.72
Conductance (mS/cm)	2.607	2.632	2.649
Dissolved Oxygen mg/L)	0.19	0.18	0.16
Turbidity (NTU)	5.83	5.51	5.18
ORP (mV)	-93.1	-93.9	-94.1

MISCELLANEOUS OBSERVATIONS/PROBLEMS

0810 - REDUCED FLOW RATE FROM 100 mL/MIN TO 75 mL/MIN.

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☑ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: MFK

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 70° F, OVERCAST, LIGHT WIND

Well ID. MW04-12451 12351
Date: 9/16/04
Time In: 0745 Time Out: 1015

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	7.01		
Total Depth	(feet)	18.62		

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION Pump on @ 0800

Length of Water Column:	(feet)	11.61
Volume of Water in Well:	(gal)	1.89
Pumping Rate of Pump:	(mL/min)	75
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		67
Total Volume Removed:	(gal)	1.36

Conversion Factors

gallons per foot of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW04-12451 (091604)
Sample Time: 0907
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 w HACH TURBIDIMETER

Time / Parameter	1 0812 Initial	2 0817	3 0822	4 0827	5 0832	6 0837	7 0842	8 0847	9 0852
Volume Purged (gal)	1.0	1.38	1.76	2.14	2.52	2.90	3.28	3.66	4.04
Depth to Water (ft. TIC)	9.80	9.79	9.79	9.79	9.79	9.79	9.79	9.79	9.79
Temperature (°C)	15.52	15.60	15.57	15.61	15.61	15.73	15.84	15.92	15.88
pH	7.02	7.01	7.02	6.99	6.99	7.00	7.01	7.01	7.00
Conductance (mS/cm)	3.229	3.197	3.185	3.145	3.130	2.960	2.817	2.723	2.677
Dissolved Oxygen mg/L)	2.66	2.32	1.88	1.55	1.44	1.28	1.17	0.91	0.76
Turbidity (NTU)	7.12	5.39	5.77	5.44	3.89	3.42	2.72	2.01	1.99
ORP (mV)	-111.5	-110.4	-111.0	-111.2	-112.7	-106.9	-105.3	-102.4	-99.5

Time / Parameter	10 0857	11 0902	12 0907
Volume Purged (gal)	4.42	4.80	5.18
Depth to Water (ft. TIC)	9.79	9.79	9.79
Temperature (°C)	15.99	15.91	15.94
pH	7.01	6.99	6.99
Conductance (mS/cm)	2.601	2.569	2.553
Dissolved Oxygen mg/L)	0.68	0.67	0.69
Turbidity (NTU)	1.64	1.53	1.45
ORP (mV)	-97.3	-96.5	-96.5

MISCELLANEOUS OBSERVATIONS/PROBLEMS

* 0812 REDUCED FLOW RATE FROM 100 mL/ TO 75 mL/MIN.

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: Federal Express ☑ Other: ☐
Sample was shipped day of sampling ☑ sent on ☐
Chain of Custody Signed By: MK

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80° F - Sunny

Well ID. MW04-124WT
Date: 9-15-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	6.43 (feet)			
Total Depth	12 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column:	(feet)	
Volume of Water in Well:	5.52 (gal)	
Pumping Rate of Pump:	0.90 (mL/min)	
Pumping Rate of Pump:	100 (GPM)	
Minutes of Pumping:	20	
Total Volume Removed:	2.0L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ _____

Did well go dry? Yes ☐ No ☑ Water Quality Meter Type: _____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW04-124WT(09)
Sample Time: 13:25
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

Time / Parameter	1 13:00 Initial	2 13:05	3 13:10	4 13:15	5 13:20	6	7	8	9
Volume Purged (gal)	Initial	0.5L	1.0L	1.5L	2.0L				
Depth to Water (ft. TIC)	6.60	6.60	6.64	6.65	6.65				
Temperature (°C)	23.14	19.71	19.68	19.60	19.67				
pH	6.77	6.74	6.74	6.73	6.73				
Conductance (mS/cm)	1.871	1.839	1.812	1.780	1.760				
Dissolved Oxygen mg/L)	0.34	0.27	0.20	0.18	0.15				
Turbidity (NTU)	~~1139~~ 118	6.20	9.13	4.67	6.25				
ORP (mV)	-56.2	-68.7	-71.0	-72.4	-72.9				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory: _____
Shipped Via: ☐ Federal Express ☐ Other: _____
Sample was ☐ shipped day of sampling ☐ sent on _____
Chain of Custody Signed By: _____

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 80°F Sunny

Well ID. MW 04-124 SL
Date: 9-15-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	7.00 (feet)			
Total Depth	18.00 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☐ No ☑
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other:

WELL WATER INFORMATION

Length of Water Column:	11.00 (feet)	
Volume of Water in Well:	1.79 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:	20	
Total Volume Removed:	2.0L (gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		
Tubing Used:	Teflon ☐	Polyethylene ☑				
Sampling Method:	Bailer ☐	Peristaltic ☑	Grudfos ☐	Other Pump ☐		
Did well go dry?	Yes ☐	No ☑	Water Quality Meter Type:			

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Sample ID: MW 04-124SL 9/15
Sample Time: 13:30
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☐ No ☑
Duplicate ID:
Total Bottles: 7

Time / Parameter	1	2	3	4	5	6	7	8	9
	13:00 Initial	13:05	13:10	13:15	13:20				
Volume Purged (gal)	Initial	0.5L	1.0L	1.5L	2.0L				
Depth to Water (ft. TIC)	7.40	7.59	7.69	7.74	7.79				
Temperature (°C)	19.40	18.06	18.09	18.12	18.04				
pH	6.78	6.75	6.72	6.71	6.71				
Conductance (mS/cm)	2.378	2.135	2.109	2.075	2.048				
Dissolved Oxygen mg/L)	0.46	0.29	0.20	0.18	0.14				
Turbidity (NTU)	22.8	12.0	6.70	6.26	6.15				
ORP (mV)	-60.8	-84.4	-88.1	-89.7	-90.5				

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

SAMPLE DESTINATION

Laboratory:
Shipped Via: ☐ Federal Express ☐ Other:
Sample was ☐ shipped day of sampling ☐ sent on
Chain of Custody Signed By:

REALM Peninsula Area Property, Saginaw, MI — *Site* — **September 2004** — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 60°F, PARTLY CLOUDY, LIGHT WIND

Well ID. MW-129
Date: 9/17/04
Time In: 0800 Time Out: 1040

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)	6.39		
Total Depth	(feet)	15.35		

check where appropriate
Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION — PUMP ON @ 0818

Length of Water Column:	(feet)	8.69
Volume of Water in Well:	(gal)	1.43
Pumping Rate of Pump:	(mL/min)	100
Pumping Rate of Pump:	(GPM)	____
Minutes of Pumping:		45
Total Volume Removed:	(gal)	1.18

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L = 3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

SAMPLING INFORMATION

Analyses:
TCL VOCs ☑
TCL SVOCs ☑
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☑
Sample ID: MW-129(091704)
Sample Time: 0903
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☑ No ☐
Duplicate ID: DUP-2(091704)
Total Bottles: 14

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Did well go dry? Yes ☐ No ☑
Water Quality Meter Type: YSI 556 w/ HACH TURBIDIMETER

Time / Parameter	1 (Initial)	2	3	4	5	6	7	8	9
	0828	0833	0838	0843	0848	0853	0858	0903	
Volume Purged (gal)	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
Depth to Water (ft. TIC)	6.76	6.76	6.76	6.76	6.76	6.76	6.76	6.77	
Temperature (°C)	12.90	13.12	13.27	13.34	13.41	13.50	13.62	13.72	
pH	6.95	6.86	6.79	6.76	6.74	6.72	6.67	6.66	
Conductance (mS/cm)	1.944	1.941	1.943	1.943	1.944	1.945	1.944	1.943	
Dissolved Oxygen mg/L)	0.87	0.49	0.34	0.29	0.27	0.27	0.28	0.33	
Turbidity (NTU)	99.1	88.7	72.7	55.6	38.9	21.9	13.6	7.97	
ORP (mV)	-100.5	-100.4	-98.1	-96.2	-95.0	-93.1	-91.7	-91.9	

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

STRONG 'BURNING RUBBER' ODOR PRESENT.

SAMPLE DESTINATION

Laboratory: STL
Shipped Via: ☑ Federal Express ☐ Other: ____
Sample was ☑ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: MRM

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather: 85°C Sunny

Well ID. MW-144 WT
Date: 9-15-04
Time In: Time Out:

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	8.40 (feet)			
Total Depth	15.21 (feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☑
Well Locked: Yes ☑ No ☐
Measuring Point Marked: Yes ☑ No ☐
Well Diameter: 1" ☐ 2" ☑ Other: ____

WELL WATER INFORMATION

Length of Water Column:	6.81 (feet)	
Volume of Water in Well:	1.11 (gal)	
Pumping Rate of Pump:	100 (mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		
Total Volume Removed:	(gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☑
Sampling Method: Bailer ☐ Peristaltic ☑ Grudfos ☐ Other Pump ☐ ____

Did well go dry? Yes ☐ No ☐ Water Quality Meter Type: ____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐ 3
TCL SVOCs ☐ 2
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐ 1

Sample ID: MW-144 WT (09/15c)
Sample Time: 16:17
MS/MSD: Yes ☐ No ☑
Duplicate: Yes ☑ No ☐
Duplicate ID: Dup-1 (09/15c)
Total Bottles: 14

Time / Parameter	1 Initial	2	3	4	5	6	7	8	9
	14:55	15:00	15:05	15:10	15:15	15:20	15:25	15:30	15:35
Volume Purged (gal)	Initial	.5	1.0 L	1.5 L	2.0 L	2.5 L	3.0 L	3.5 L	4.0 L
Depth to Water (ft. TIC)	8.60	8.60	8.6	8.60	8.60	8.60	8.60	8.60	8.60
Temperature (°C)	20.05	20.02	19.86	19.99	19.80	19.71	19.50	19.38	19.32
pH	6.73	6.71	6.69	6.68	6.67	6.66	6.70	6.70	6.71
Conductance (mS/cm)	1.903	1.898	1.899	1.891	1.891	1.890	1.887	1.894	1.891
Dissolved Oxygen mg/L)	0.35	0.21	0.11	0.10	0.08	0.07	0.07	0.07	0.07
Turbidity (NTU)	255	168	109	81.1	73.1	68.1	56.1	49.2	39.5
ORP (mV)	-146.1	-149.5	-151.5	-153.0	-154.3	-155.6	-157.8	-159.7	-159.5

Time / Parameter	10	11	12
	15:40	15:45	15:50
Volume Purged (gal)	4.5 L	5.0 L	5.5 L
Depth to Water (ft. TIC)	8.60	8.60	8.60
Temperature (°C)	19.56	19.62	19.76
pH	6.70	6.73	6.74
Conductance (mS/cm)	1.884	1.889	1.881
Dissolved Oxygen mg/L)	0.06	0.08	0.07
Turbidity (NTU)	30.6	23.3	17.7
ORP (mV)	-159.1	-161.3	-162.7

MISCELLANEOUS OBSERVATIONS/PROBLEMS

Page 1 of 2

SAMPLE DESTINATION

Laboratory: ____
Shipped Via: ☐ Federal Express ☐ Other: ____
Sample was ☐ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: ____

REALM Peninsula Area Property, Saginaw, MI — *Site*

September 2004 — *Event*

GROUND-WATER SAMPLING LOG

Sampling Personnel: Mike Kohagen, Mike Mathiak
Job Number: 869.91.001
Weather:
Well ID. MW-124(WT
Date:
Time In: **Time Out:**

WELL INFORMATION

		TIC	TOC	BGS
Depth to Water	(feet)			
Total Depth	(feet)			

check where appropriate

Well Type: Flushmount ☐ Stick-Up ☐
Well Locked: Yes ☐ No ☐
Measuring Point Marked: Yes ☐ No ☐
Well Diameter: 1" ☐ 2" ☐ Other: ____

WELL WATER INFORMATION

Length of Water Column:	(feet)	
Volume of Water In Well:	(gal)	
Pumping Rate of Pump:	(mL/min)	
Pumping Rate of Pump:	(GPM)	
Minutes of Pumping:		
Total Volume Removed:	(gal)	

Conversion Factors

gallons per feet of water column:	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 mL = 0.1337 cubic ft.

Unit Stability

pH	DO	Cond	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

EVACUATION INFORMATION

Evacuation Method: Bailer ☐ Peristaltic ☐ Grudfos ☐ Other Pump ☐ ____
Tubing Used: Teflon ☐ Polyethylene ☐
Sampling Method: Bailer ☐ Peristaltic ☐ Grudfos ☐ Other Pump ☐ ____

Did well go dry? Yes ☐ No ☐ Water Quality Meter Type: ____

SAMPLING INFORMATION

Analyses:
TCL VOCs ☐
TCL SVOCs ☐
Total Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐
Dissolved Site Metals (As, Ba, Cd, Cr, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn) ☐
Sample ID:
Sample Time:
MS/MSD: Yes ☐ No ☐
Duplicate: Yes ☐ No ☐
Duplicate ID:
Total Bottles:

Time / Parameter	1 1555 (initial)	2 ~~1600~~	3 1605	4	5	6	7	8	9
Volume Purged (gal)	6.0L	6.5L	7.0L						
Depth to Water (ft. TIC)	8.60	8.60	8.60						
Temperature (°C)	14.74	14.77	14.76						
pH	6.77	6.77	6.78						
Conductance (mS/cm)	1.853	1.852	1.878						
Dissolved Oxygen mg/L)	0.08	0.08	0.09						
Turbidity (NTU)	13.41	11.1	9.65						
ORP (mV)	~~-164.6~~	-165.6	-166.2						

Time / Parameter	10	11	12
Volume Purged (gal)			
Depth to Water (ft. TIC)			
Temperature (°C)			
pH			
Conductance (mS/cm)			
Dissolved Oxygen mg/L)			
Turbidity (NTU)			
ORP (mV)			

MISCELLANEOUS OBSERVATIONS/PROBLEMS

Page 2 of 2

SAMPLE DESTINATION

Laboratory: ____
Shipped Via: ☐ Federal Express ☐ Other: ____
Sample was ☐ shipped day of sampling ☐ sent on ____
Chain of Custody Signed By: ____

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: MIKE KOHAGEN
Well ID: MW-97-105WT
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 35°F, MOSTLY CLOUDY, MODERATE WIND
Time In: 1210 Time Out: 1320

Well Information

Depth to Water:	(feet)	8.96	(TIC)
Total Depth:	(feet)	16.42	(TIC)
Length of Water Column:	(feet)	7.46	
Volume of Water in Well:	(gal)	1.22	
Three Well Volumes:	(gal)	3.66	

Well Type:	Flushmount ☐		Stick-Up ☑		
Well Material:	Stainless Steel ☐		PVC ☑		
Well Locked:	Yes ☑		No ☐		
Measuring Point Marked:	Yes ☑		No ☐		
Well Diameter:	1" ☐	2" ☑	Other:		

PUMP ON @ 1219

Purging Information

Purging Method:	Bailer ☐		Peristaltic ☑		Grundfos ☐	Other:	
Tubing/Bailer Material:	St. Steel ☐		Polyethylene ☑		Teflon ☐	Other:	
Sampling Method:	Bailer ☐		Peristaltic ☑		Grundfos ☐	Other:	
Duration of Pumping:	(min)	55					
Average Pumping Rate:	(ml/min)	100	Water-Quality Meter Type:		YSI-556/Hach 2100		
Total Volume Removed:	(gal)	1.45	Did well go dry:	Yes	(No)		

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1229	1234	1239	1244	1249	1254	1259	1304	1309	1314		
Volume Purged (L)	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50		
Rate (mL/min)	100	100	100	100	100	100	100	100	100	100		
Depth to Water (ft.)	9.06	9.08	9.09	9.10	9.11	9.12	9.13	9.14	9.14	9.14		
pH	7.05	7.05	7.04	7.07	7.06	7.10	7.12	7.10	7.10	7.10		
Temp. (C)	10.14	10.14	10.07	9.92	9.86	10.22	10.35	10.41	10.47	10.45		
Conductivity (mS/cm)	2.010	1.924	1.897	1.855	1.849	1.834	1.835	1.838	1.827	1.818		
Dissolved Oxygen	0.56	0.48	0.42	0.32	0.30	0.28	0.26	0.23	0.20	0.19		
ORP (mV)	-18.8	-17.4	-16.5	-16.1	-15.9	-18.7	-18.9	-19.0	-20.4	-21.4		
Turbidity (NTU)	8.64	9.32	7.94	7.41	7.24	7.01	6.76	6.21	4.64	4.03		
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: CLEAR, NO ODOR, SLIGHTLY TURBID (LARGE BLACK PARTICALS)

Final Purge: CLEAR, NO ODOR, FEW LARGE BLACK PARTICALS.

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): GOOD

Locking Protective Well Cap/expansion plug: PVC CAP, NO PLUG.

Well Lock Present? YES Lock Condition: GOOD

Other:

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	N/A	Cyanide (NaOH) Tot Diss	N/A
SVOCs (2 Amber)	N/A	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	N/A	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)	N/A	List Metal(s): (MF) SEL SELENIUM	
Sample ID: MW-97-105WT (122104)		Sample Time: 1314	
MS/MSD: Yes (No)		Duplicate: Yes (No)	
Duplicate ID: N/A		Dup. Time: N/A	
Sampled By: MFK		Log Reviewed By:	
All samples submitted under COC to Severn Trent Laboratories			

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

MW-97-10551

Sampling Personnel: MIKE KOHAGEN
Well ID: ~~MW-97-105WT~~ (MFK)
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 30° F, OVERCAST, MODERATE WIND.
Time In: 0930 Time Out: 1100

Well Information

Depth to Water:	(feet)	8.48	(TIC)
Total Depth:	(feet)	23.09	(TIC)
Length of Water Column:	(feet)	14.61	
Volume of Water in Well:	(gal)	2.34	
Three Well Volumes:	(gal)	7.03	

PUMP ON @ 1002

Well Type:	Flushmount ☐		Stick-Up ☑	
Well Material:	Stainless Steel ☐		PVC ☑	
Well Locked:	Yes ☑		No ☐	
Measuring Point Marked:	Yes ☑		No ☐	
Well Diameter:	1" ☐	2" ☑	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:		
Tubing/Bailer Material:	St. Steel ☐	Polyethylene ☑	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:		
Duration of Pumping:	(min)	35				
Average Pumping Rate:	(ml/min)	100	Water-Quality Meter Type:	YSI-556/Hach 2100		
Total Volume Removed:	(gal)	0.92	Did well go dry:	Yes	(No)	

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1017	1017	1022	1027	1032	1037						
Volume Purged (L)	1.00	~~1.00~~ (MFK)	2.00	2.50	3.00	3.50						
Rate (mL/min)	100	100	100	100	100	100						
Depth to Water (ft.)	8.69	8.69	8.70	8.70	8.71	8.71						
pH	6.64	6.63	6.66	6.66	6.65	6.64						
Temp. (C)	8.96	9.21	9.51	9.52	9.64	9.85						
Conductivity (mS/cm)	2.860	2.855	2.859	2.875	2.876	2.877						
Dissolved Oxygen	0.72	0.56	0.45	0.37	0.32	0.30						
ORP (mV)	-6.0	-5.4	-4.9	-4.0	-3.7	-3.1						
Turbidity (NTU)	1.13	1.25	1.43	1.37	1.25	0.86						
Notes:		1.50 VOLUME										

MFK

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: CLEAR, NO ODOR.

Final Purge: CLEAR, NO ODOR.

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): GOOD

Locking Protective Well Cap/expansion plug: PVC CAP - NO PLUG

Well Lock Present? YES Lock Condition: GOOD

Other:

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	N/A	Cyanide (NaOH) Tot Diss	N/A
SVOCs (2 Amber)	N/A	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	N/A	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)	N/A	List Metal(s):	SELENIUM

Sample ID: MW-97-105 ~~WT~~ S1 (MFK) (122104) Sample Time: 1037

MS/MSD: Yes (No) (MFK) Duplicate: Yes (No)

Duplicate ID: N/A Dup. Time: N/A

Sampled By: MFK Log Reviewed By:

All samples submitted under COC to Severn Trent Laboratories

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: M. KOHAGEN
Well ID: ~~MW-04~~ MW04-119WT
Client / Job Number: GM/86991.001
Date: 12/22/04
Weather: 25°F, OVERCAST, LIGHT SNOW, MODERATE WIND.
Time In: 0845 Time Out: 1020

Well Information

Depth to Water:	(feet)	7.51	(TIC)
Total Depth:	(feet)	17.00	(TIC)
Length of Water Column:	(feet)	9.49	
Volume of Water in Well:	(gal)	1.52	
Three Well Volumes:	(gal)	4.56	

Well Type:	Flushmount ☐	Stick-Up ☑
Well Material:	Stainless Steel ☐	PVC ☑
Well Locked:	Yes ☐	No ☑
Measuring Point Marked:	Yes ☑	No ☐
Well Diameter:	1" ☐ 2" ☑	Other:

Purging Information

PUMP ON @ 0900

Purging Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:		
Tubing/Bailer Material:	St. Steel ☐	Polyethylene ☑	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:		
Duration of Pumping:	(min)	65				
Average Pumping Rate:	(ml/min)	100	Water-Quality Meter Type:	YSI-556/Hach 2100		
Total Volume Removed:	(gal)	1.71	Did well go dry:	Yes	(No)	

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	0910	0915	0920	0925	0930	0935	0940	0945	0950	0955	1000	1005
Volume Purged (L)	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Rate (mL/min)	100	100	100	100	100	100	100	100	100	100	100	100
Depth to Water (ft.)	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53	7.53
pH	7.45	7.50	7.52	7.52	7.52	7.51	7.51	7.52	7.53	7.54	7.54	7.54
Temp. (C)	5.87	6.69	6.93	7.10	7.41	7.53	7.66	8.02	8.26	8.57	8.63	8.70
Conductivity (mS/cm)	0.890	0.888	0.886	0.886	0.886	0.889	0.891	0.894	0.898	0.905	0.909	0.910
Dissolved Oxygen	5.32	0.69	0.56	0.46	0.41	0.40	0.39	2.16	2.38	0.29	0.27	0.26
ORP (mV)	-40.3	-24.7	-23.9	-24.8	-25.3	-25.3	-25.2	-25.4	-26.5	-26.1	-26.0	-25.4
Turbidity (NTU)	17.7	17.9	17.3	17.1	18.1	17.3	16.3	15.7	12.5	15.2	16.3	16.1
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: CLEAR, NO ODOR, SLIGHTLY TURBID

Final Purge: CLEAR, NO ODOR, SLIGHTLY TURBID.

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): GOOD

Locking Protective Well Cap/expansion plug: YES / GOOD

Well Lock Present? NO Lock Condition: N/A

Other:

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	N/A	Cyanide (NaOH) Tot Diss	N/A
SVOCs (2 Amber)	N/A	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	N/A	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)		List Metal(s):	SELENIUM
Sample ID: MW04-119WT(122204)		Sample Time:	1005
MS/MSD: Yes (No)		Duplicate: Yes (No)	
Duplicate ID: N/A		Dup. Time:	N/A
Sampled By: MFK		Log Reviewed By:	
All samples submitted under COC to Severn Trent Laboratories			

General Motors-Saginaw,Michigan Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: M. KOHAGEN
Well ID: ~~MW04-1195T~~ MW01-1195
Client / Job Number: GM/86991.001
Date: ~~MW04-1195T~~ 12/22/04
Weather: 22°F, SNOW, MODERATE WIND
Time In: 1030 Time Out: ~~1215~~ 1204

Well Information

Depth to Water:	(feet)	7.28	(TIC)
Total Depth:	(feet)	28.40	(TIC)
Length of Water Column:	(feet)	21.12	
Volume of Water in Well:	(gal)	3.38	
Three Well Volumes:	(gal)	10.14	

Well Type:	Flushmount ☐		Stick-Up ☑		
Well Material:	Stainless Steel ☐		PVC ☑		
Well Locked:	Yes ☑		No ☐		
Measuring Point Marked:	Yes ☑		No ☐		
Well Diameter:	1" ☐	2" ☑	Other:		

Purging Information

PUMP ON @ 1027

Purging Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:	
Tubing/Bailer Material:	St. Steel ☐	Polyethylene ☑	Teflon ☐	Other:	
Sampling Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:	

Duration of Pumping: (min) 81
Average Pumping Rate: (ml/min) 100 Water-Quality Meter Type: YSI-556/Hach 2100
Total Volume Removed: (gal) 2.10 Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1038	1043	1048	1053	1058	1103	1108	1113	1118	1123	1128 ~~1118~~ (MS)	1133
Volume Purged (L)	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50
Rate (mL/min)	100	100	100	100	100	100	100	100	100	100	100	100
Depth to Water (ft.)	7.41	7.82	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74
pH	7.24	7.20	7.22	7.21	7.20	7.20	7.20	7.18	7.18	7.18	7.18	7.16
Temp. (C)	4.78	5.00	6.55	6.90	7.14	7.14	7.26	7.41	7.47	7.55	7.35	7.57
Conductivity (mS/cm)	1.171	1.174	1.165	1.177	1.174	1.181	1.179	1.180	1.180	1.178	1.178	1.171
Dissolved Oxygen	1.77	1.28	0.66	1.06	0.74	0.68	0.59	0.43	0.40	0.50	0.34	0.43
ORP (mV)	-0.6	-0.6	-1.8	-1.6	-1.7	-1.8	-1.7	-1.6	-1.5	-1.6	-1.3	-1.1
Turbidity (NTU)	132.0	98.4	57.4	44.3	34.9	28.1	23.7	20.3	19.4	14.8	15.0	14.7
Notes:												

1043 - INCREASED FLOW RATE TO PURGE ICE FROM TUBING
1046 - REDUCED TO 100 ML/MIN.

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: CLOUDY, NO ODOR.

Final Purge: CLEAR, NO ODOR.

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): GOOD
Locking Protective Well Cap/expansion plug: YES / GOOD
Well Lock Present? YES Lock Condition: GOOD
Other:

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	N/A	Cyanide (NaOH) Tot Diss	N/A
SVOCs (2 Amber)	N/A	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	N/A	Metals (Dissolved) (HNO3)	
PCBs (Dissolved) (2 Amber)	N/A	List Metal(s): SELENIUM	
Sample ID: MW04-1195(01)(122204)		Sample Time: 1148	
MS/MSD: Yes (No)		Duplicate: Yes (No)	
Duplicate ID: N/A		Dup. Time: N/A	
Sampled By: MFK		Log Reviewed By:	
All samples submitted under COC to Severn Trent Laboratories			

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

MW01-1195I

Sampling Personnel: M. KOHAGEN
Well ID: ~~MW01-1195I~~ MW01-1195I
Client / Job Number: GM/86991.001
Date: 12/22/04
Weather: 22°F, SNOW, MODERATE WIND
Time In: 1030 **Time Out:** 1204

Well Information

Depth to Water:	(feet)	(TIC)
Total Depth:	(feet)	(TIC)
Length of Water Column:	(feet)	SEE PP #1
Volume of Water in Well:	(gal)	
Three Well Volumes:	(gal)	

Well Type:	Flushmount ☐		Stick-Up ☐	
Well Material:	Stainless Steel ☐		PVC ☐	
Well Locked:	Yes ☐		No ☐	
Measuring Point Marked:	Yes ☐		No ☐	
Well Diameter:	1" ☐	2" ☐	Other:	

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:		
Tubing/Bailer Material:	St. Steel ☐	Polyethylene ☑	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☑	Grundfos ☐	Other:		
Duration of Pumping:	(min) 81					
Average Pumping Rate:	(ml/min) 100	Water-Quality Meter Type:	YSI-556/Hach 2100			
Total Volume Removed:	(gal) 2.10	Did well go dry:	Yes	(No)		

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1138	1143	1148									
Volume Purged (L)	7.00	7.50	8.00									
Rate (mL/min)	100	100	100									
Depth to Water (ft.)	7.74	7.74	7.74									
pH	7.17	7.16	7.15									
Temp. (C)	7.38	7.41	7.40									
Conductivity (mS/cm)	1.171	1.173	1.170									
Dissolved Oxygen	0.46	0.47	0.42									
ORP (mV)	-1.0	-1.0	-0.8									
Turbidity (NTU)	10.8	10.3	9.61									
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge:

Final Purge:

Well Integrity Information SEE PP #1

Surface Seal Condition (concrete pad, bolts, manhole cover):

Locking Protective Well Cap/expansion plug:

Well Lock Present? Lock Condition:

Other:

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)		Cyanide (NaOH) Tot Diss	
SVOCs (2 Amber)		Metals (Total) (HNO3)	
PCBs (Total) (2 Amber)		Metals (Dissolved) (HNO3)	
PCBs (Dissolved) (2 Amber)		List Metal(s):	
Sample ID:		Sample Time:	
MS/MSD: Yes No		Duplicate: Yes No	
Duplicate ID:		Dup. Time:	
Sampled By:		Log Reviewed By:	
All samples submitted under COC to Severn Trent Laboratories			

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: RPT
Well ID: MW04-121WT
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 35°F, Cloudy
Time In: 1345 Time Out: 1500

Well Information

Depth to Water: 9.70 (feet) (TIC)
Total Depth: 18.37 (feet) (TIC)
Length of Water Column: (feet) 8.67
Volume of Water in Well: (gal) 1.41
Three Well Volumes: (gal) 4.23

Well Type: Flushmount ☐ Stick-Up ☒
Well Material: Stainless Steel ☐ PVC ☒
Well Locked: Yes ☐ No ☒
Measuring Point Marked: Yes ☒ No ☐
Well Diameter: 1" ☐ 2" ☒ Other:

Purging Information

pump on @ 1400 off @ 1451

Purging Method: Bailer ☐ Peristaltic ☒ Grundfos ☐ Other:
Tubing/Bailer Material: St. Steel ☐ Polyethylene ☒ Teflon ☐ Other:
Sampling Method: Bailer ☐ Peristaltic ☒ Grundfos ☐ Other:
Duration of Pumping: 51 (min)
Average Pumping Rate: 140 (ml/min) Water-Quality Meter Type: YSI-556/Hach 2100
Total Volume Removed: 1.89 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1407	1412	1417	1422	1427	1432	1437	1442	1447			
Volume Purged (L)	Init.	0.75	1.5	2.25	3.0	3.75	4.50	5.25	6.00			
Rate (mL/min)	150	150	150	150	150	150	150	150	150			
Depth to Water (ft.)	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72	9.72			
pH *	8.38	9.09	9.64	9.75	9.66	9.54	10.01	10.00	9.93			
Temp. (C)	9.77	9.94	9.99	10.04	9.99	10.04	10.10	10.09	10.15			
Conductivity (mS/cm)	1.359	1.360	1.358	1.356	1.355	1.355	1.353	1.352	1.351			
Dissolved Oxygen	0.99	0.32	0.14	0.13	0.10	0.09	0.05	0.05	0.05			
ORP (mV)	-217.3	-236.5	-237.6	-239.5	-228.5	-241.3	-240.6	-236.6	-232.8			
Turbidity (NTU)	17.2	8.54	6.78	5.05	4.23	4.28	3.78	3.18	2.67			
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: None, None, Slightly turbid, orange flakes (rust?)
Final Purge: None, None, V. slightly turbid

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): snow covered couldn't inspect pad
Locking Protective Well Cap/expansion plug: Yes
Well Lock Present? No Lock Condition: NA
Other: *pH out of calibration

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	—	Cyanide (NaOH) Tot Diss	—
SVOCs (2 Amber)	—	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	—	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)	—	List Metal(s):	Selenium
Sample ID: MW04-121WT (122104)		Sample Time:	1447
MS/MSD: Yes (No)		Duplicate: Yes (No)	
Duplicate ID: —		Dup. Time: —	
Sampled By: RPT		Log Reviewed By:	
All samples submitted under COC to Severn Trent Laboratories			

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: RPT
Well ID: MW04-12151
Client / Job Number: GM/86991.001
Date: 12/22/04
Weather: 30°F, Lt. snow
Time In: 960 Time Out: 1030

Well Information

Depth to Water:	11.19 (feet)	(TIC)
Total Depth:	25.05 (feet)	(TIC)
Length of Water Column:	(feet) 13.86	
Volume of Water in Well:	(gal) 2.26	
Three Well Volumes:	(gal) 6.78	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☐		No ☒	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1" ☐	2" ☒	Other:	

Purging Information

Pump on @ 920 off @ 1010

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos ☐	Other:		
Tubing/Bailer Material:	St. Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos ☐	Other:		

Duration of Pumping: 50 (min)
Average Pumping Rate: 140 (ml/min) Water-Quality Meter Type: YSI-556/Hach 2100
Total Volume Removed: 1.85 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	926	931	936	941	946	951						
Volume Purged (L)	Initial	0.7	1.4	2.1	2.8	3.5						
Rate (mL/min)	140	140	140	140	140	140						
Depth to Water (ft.)	12.12	11.98	11.90	11.91	11.91	11.91						
pH*	10.07	9.13	9.47	9.57	9.54	9.58						
Temp. (C)	9.74	8.82	8.66	8.59	8.69	8.76						
Conductivity (mS/cm)	3.320	~~3.370~~ 3.338 RT	3.327	3.316	3.297	3.326						
Dissolved Oxygen	0.19	0.20	0.22	0.22	0.22	0.21						
ORP (mV)	-121.3	-115.8	-117.8	-121.2	-125.7	-128.7						
Turbidity (NTU)	6.60	5.04	4.49	2.99	3.17	2.88						
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: Slight yellow, slightly turbid, no odor
Final Purge: Slight yellow, none, v. slightly turbid

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): snow covered couldn't ✓ pad condition
Locking Protective Well Cap/expansion plug: Yes
Well Lock Present? No Lock Condition: NA
Other: * pH out of range during calibration accepted anyways.

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	—	Cyanide (NaOH) Tot Diss	—
SVOCs (2 Amber)	—	Metals (Total) (HNO3)	4
PCBs (Total) (2 Amber)	—	Metals (Dissolved) (HNO3)	4
PCBs (Dissolved) (2 Amber)	—	List Metal(s):	Selenium

Sample ID: MW04-12151 (122204) Sample Time: 951
MS/MSD: (Yes) No Duplicate: (Yes) No
Duplicate ID: Dupe 1 (122204) Dup. Time: 951
Sampled By: RPT Log Reviewed By:
All samples submitted under COC to Severn Trent Laboratories

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: RPT
Well ID: MW04-124WT
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 30°F, Cloudy
Time In: 932 Time Out: 1112

Well Information

Depth to Water:	5.75 (feet)	(TIC)
Total Depth:	15.42 (feet)	(TIC)
Length of Water Column:	(feet) 9.67	
Volume of Water in Well:	(gal) 1.58	
Three Well Volumes:	(gal) 4.74	

Well Type:	Flushmount ☐		Stick-Up ☒		
Well Material:	Stainless Steel ☐		PVC ☒		
Well Locked:	Yes ☐		No ☒		
Measuring Point Marked:	Yes ☒		No ☐		
Well Diameter:	1" ☐	2" ☒	Other:		

Purging Information

pump on @ 1000 off @ 1054

Purging Method:	Bailer ☐		Peristaltic ☒		Grundfos ☐	Other:	
Tubing/Bailer Material:	St. Steel ☐		Polyethylene ☒		Teflon ☐	Other:	
Sampling Method:	Bailer ☐		Peristaltic ☒		Grundfos ☐	Other:	

Duration of Pumping: 54 (min)
Average Pumping Rate: 140 (ml/min) Water-Quality Meter Type: YSI-556/Hach 2100
Total Volume Removed: 2.00 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	* 4	10355	6	7	8	9	10	11	12
Time:	1010	1015	1020	1025	~~1030~~ M	1040	1045	1050				
Volume Purged (L)	Initial	0.7	1.4	2.1	2.8	3.5	4.2	4.9				
Rate (mL/min)	140	140	140	140	140	140	140	140				
Depth to Water (ft.)	5.96	5.99	5.99	6.00	6.00	6.00	6.01	6.01				
pH	18.26	17.98	17.63	17.38	6.90	6.83	6.82	6.79				
Temp. (C)	8.10	8.03	8.06	8.01	7.96	8.29	8.32	8.09				
Conductivity (mS/cm)	1.417	1.409	1.407	1.405	1.412	1.405	1.409	1.417				
Dissolved Oxygen	1.05	0.77	0.64	0.63	0.81	0.16	0.16	0.16				
ORP (mV)	-43.9	-38.5	-37.0	-37.6	-67.1	-65.6	-67.6	-62.5				
Turbidity (NTU)	5.56	7.81	5.19	2.76	1.58	1.41	1.69	1.56				
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: Yellow, None, Slightly turbid, orange flakes in H_2O (Rust?)
Final Purge: Yellow, None, V. Slightly turbid

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): Snow covered couldn't see pad
Locking Protective Well Cap/expansion plug:

Well Lock Present? No Lock Condition: NA

Other: * @1025 changed probe due to elevated pH readings

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	—	Cyanide (NaOH) Tot Diss	—
SVOCs (2 Amber)	—	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	—	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)	—	List Metal(s):	Selenium

Sample ID: MW04-124WT (122104) Sample Time: 1050
MS/MSD: Yes (No) Duplicate: Yes (No)
Duplicate ID: NA Dup. Time: NA
Sampled By: RPT Log Reviewed By:
All samples submitted under COC to Severn Trent Laboratories

General Motors-
Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: RPT
Well ID: MW04-12451
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 35°F, partly cloudy
Time In: 1210 Time Out: 1330

Well Information

Depth to Water: 5.93	(feet)	(TIC)
Total Depth: 21.31	(feet)	(TIC)
Length of Water Column:	(feet) 15.38	
Volume of Water in Well:	(gal) 2.51	
Three Well Volumes:	(gal) 7.53	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☐		No ☒	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1" ☐	2" ☒	Other:	

Purging Information

pump on @ 1225 pump off @ 1318

Purging Method:	Bailer ☐	Peristaltic ☒	Grundfos ☐	Other:		
Tubing/Bailer Material:	St. Steel ☐	Polyethylene ☒	Teflon ☐	Other:		
Sampling Method:	Bailer ☐	Peristaltic ☒	Grundfos ☐	Other:		

Duration of Pumping: 53 (min)
Average Pumping Rate: 160 (ml/min) Water-Quality Meter Type: YSI-556/Hach 2100
Total Volume Removed: 2.24 (gal) Did well go dry: Yes (No)

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8 (RT 1309)	9	10	11	12
Time:	1234	1239	1244	1249	1254	1259	1304	~~1308~~	1314			
Volume Purged (L)	Initial	0.8	1.6	2.4	3.2	4.0	4.8	5.6	6.4			
* Rate (mL/min)	160	160	160	160	160	160	160	160	160			
Depth to Water (ft.)	6.74	6.87	7.03	7.04	7.04	7.10	7.07	7.15	7.17			
pH	6.81	6.80	6.84	6.84	6.86	6.86	6.86	6.87	6.85			
Temp. (C)	8.63	8.87	9.17	9.29	9.20	9.12	8.91	9.25	9.31			
Conductivity (mS/cm)	1.948	1.940	1.719	1.644	1.632	1.612	1.588	1.573	1.569			
Dissolved Oxygen	0.27	0.11	0.11	0.11	0.11	0.10	0.09	0.09	0.09			
ORP (mV)	-84.5	-89.4	-86.9	-81.3	-80.1	-85.5	-96.9	-104.5	-106.4			
Turbidity (NTU)	22.4	37.6	16.4	13.7	8.83	6.50	5.04	3.37	2.38			
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: None, None, slightly turbid

Final Purge: None, None, V. slightly turbid

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): snow covered couldn't see pad
Locking Protective Well Cap/expansion plug: Yes
Well Lock Present? No Lock Condition: NA
Other: * could not get rate below 160mL/min w/o pump stopping.

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	—	Cyanide (NaOH) Tot Diss	—
SVOCs (2 Amber)	—	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	—	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)	—	List Metal(s):	Selenium

Sample ID: MW04-12451 (122104) Sample Time: 1314
MS/MSD: Yes (No) Duplicate: Yes (No)
Duplicate ID: — Dup. Time: —
Sampled By: RPT Log Reviewed By:
All samples submitted under COC to Severn Trent Laboratories

1/2

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: M. KOHAGEN
Well ID: MW-144WT
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 36°F, OVERCAST, MODERATE WIND
Time In: 1330 Time Out:

Well Information

Depth to Water:	(feet)	7.73	(TIC)
Total Depth:	(feet)	7.9 15.21	(TIC)
Length of Water Column:	(feet)	7.48	
Volume of Water in Well:	(gal)	1.20	
Three Well Volumes:	(gal)	3.60	

Well Type:	Flushmount ☐		Stick-Up ☑		
Well Material:	Stainless Steel ☐		PVC ☑		
Well Locked:	Yes ☑		No ☐		
Measuring Point Marked:	Yes ☑		No ☐		
Well Diameter:	1" ☐	2" ☑	Other:		

Purging Information

PUMP ON @ 1341

Purging Method:	Bailer ☐		Peristaltic ☑		Grundfos ☐	Other:	
Tubing/Bailer Material:	St. Steel ☐		Polyethylene ☑		Teflon ☐	Other:	
Sampling Method:	Bailer ☐		Peristaltic ☑		Grundfos ☐	Other:	
Duration of Pumping:	(min)	100					
Average Pumping Rate:	(ml/min)	100	Water-Quality Meter Type:		YSI-556/Hach 2100		
Total Volume Removed:	(gal)	2.63	Did well go dry:	Yes	No		

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1411 1334	1416	1421	1426	1431	1436	1441	1446	1451	1456	1501	1506
Volume Purged (L)	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50
Rate (mL/min)	100	100	100	100	100	100	100	100	100	100	100	100
Depth to Water (ft.)	7.97	7.97	7.97	7.97	7.97	7.97	7.97	7.97	7.97	7.97	7.97	7.97
pH	6.89	6.88	6.89	6.88	6.88	6.87	6.87	6.87	6.87	6.87	6.87	6.88
Temp. (C)	9.51	9.60	9.71	9.58	9.41	9.45	9.46	9.47	9.32	9.21	9.33	9.11
Conductivity (mS/cm)	1.780	1.781	1.781	1.783	1.780	1.782	1.782	1.782	1.778	1.779	1.778	1.782
Dissolved Oxygen	0.43	0.37	0.35	0.44	0.30	0.30	0.31	0.36	0.31	0.25	0.21	0.22
ORP (mV)	-3.0	-2.5	-2.1	-4.4	-5.6	-6.2	-6.6	-7.4	-7.8	-8.0	-8.1	-7.6
Turbidity (NTU)	54.2	50.1	46.9	38.4	32.8	30.2	29.1	26.2	24.4	22.1	20.5	14.7
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge: BROWN, NO ODOR, VERY TURBID.

Final Purge: CLEAR, NO ODOR, SLIGHTLY TURBID

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover): GOOD

Locking Protective Well Cap/expansion plug: OK

Well Lock Present? YES Lock Condition: GOOD

Other:

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)	N/A	Cyanide (NaOH) Tot Diss	N/A
SVOCs (2 Amber)	N/A	Metals (Total) (HNO3)	1
PCBs (Total) (2 Amber)	N/A	Metals (Dissolved) (HNO3)	1
PCBs (Dissolved) (2 Amber)	N/A	List Metal(s):	SELENIUM
Sample ID: MW-144WT (122104)		Sample Time:	1521
MS/MSD: Yes (No)		Duplicate: Yes (No)	
Duplicate ID: N/A		Dup. Time:	N/A
Sampled By: MFK		Log Reviewed By:	
All samples submitted under COC to Severn Trent Laboratories			

2/2

General Motors-Saginaw,Michigan
Saginaw Malleable Iron

GROUND-WATER SAMPLING LOG

December 2004 EVENT

Sampling Personnel: M. KOHARSEN
Well ID: MW-144WT
Client / Job Number: GM/86991.001
Date: 12/21/04
Weather: 36°F, OVERCAST, HIGH WIND.
Time In: 1330 Time Out:

Well Information

Depth to Water:	(feet)	(TIC)
Total Depth:	(feet)	(TIC)
Length of Water Column:	(feet)	
Volume of Water in Well:	(gal)	
Three Well Volumes:	(gal)	

MFP

Well Type:	Flushmount ☐	Stick-Up ☐
Well Material:	Stainless Steel ☐	PVC ☐
~~Well Locked:~~	Yes ☐	No ☐
Measuring Point Marked:	Yes ☐	No ☐
Well Diameter:	1" ☐ 2" ☐	Other:

Purging Information

Purging Method:	Bailer ☐	Peristaltic ☐	Grundfos ☐	Other:
Tubing/Bailer Material:	~~St. Steel~~ ☐	Polyethylene ☐	Teflon ☐	Other:
Sampling Method:	Bailer ☐	Peristaltic ☐	Grundfos ☐	Other:

Duration of Pumping: (min)
Average Pumping Rate: (ml/min) Water-Quality Meter Type: YSI-556/Hach 2100
Total Volume Removed: (gal) Did well go dry: Yes No

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability, WITH TURBIDITY <5 NTU			
pH	DO	Cond.	ORP
± 0.1	± 10%	± 3.0%	± 10 mV

	1	2	3	4	5	6	7	8	9	10	11	12
Time:	1511	1516	1521									
Volume Purged (L)	9.00	9.50	10.00									
Rate (mL/min)	100	100	100									
Depth to Water (ft.)	7.97	7.97	7.97									
pH	6.87	6.87	6.87									
Temp. (C)	9.05	9.04	9.02									
Conductivity (mS/cm)	1.780	1.778	1.776									
Dissolved Oxygen	0.30	0.27	0.26									
ORP (mV)	-8.4	-8.8	-8.9									
Turbidity (NTU)	13.8	14.1	15.3									
Notes:												

Purge Water Description (Color? Odor? Turbid? Other?)

Initial Purge:

Final Purge:

SEE PP. # 1

Well Integrity Information

Surface Seal Condition (concrete pad, bolts, manhole cover):

Locking Protective Well Cap/expansion plug:

Well Lock Present? Lock Condition:

Other:

MFP

Analyses	# of Containers	Analyses	# of Containers
VOCs (40 ml with HCL)		Cyanide (NaOH) Tot Diss	
SVOCs (2 Amber)		Metals (Total) (HNO3)	
~~PCBs (Total)~~ (2 Amber)		Metals (Dissolved) (HNO3)	
PCBs (Dissolved) (2 Amber)		List Metal(s):	

Sample ID: Sample Time:
MS/MSD: Yes No Duplicate: Yes No
Duplicate ID: Dup. Time:
Sampled By: Log Reviewed By:
All samples submitted under COC to Severn Trent Laboratories

Appendix C

Historical Groundwater Sampling Analytical Results

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

C-1
Volatile Organic Compounds

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-129WT	MW-129WT	MW-129WT	MW-129WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW01-118WT
Date Sampled:	7/28/1995	6/12/1996	9/17/2004	9/17/2004	7/29/1995	7/29/1995	6/8/1996	5/23/2000	5/23/2000	9/15/2004	9/15/2004	11/26/2001
Sample Type:	FS	FS	FS	DUP	FS	DUP	FS	FS	DUP	FS	DUP	FS
Volatile Organic Compounds												
1,1,1-Trichloroethane	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	5.6 U
1,1,2,2-Tetrachloroethane	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	5.6 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	--	--	--	--	--	--	--	--	5.6 U
1,1,2-Trichloroethane	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	5.6 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.33 J**	**0.35 J**	**0.22 J**	1.0 U	5.6 U
1,1-Dichloroethene	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	5.6 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	11 U
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	5.6 U
1,2-Dichloroethane	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	5.6 U
1,2-Dichloroethene, Total	**1.9**	1.0 U	**1.1 J**	**1.1 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	--
1,2-Dichloropropane	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	5.6 U
2-Butanone	50 UJ	50 U	25 U	25 U	50 U	50 U	50 U	10 U	10 U	25 U	25 U	56 UJ
2-Hexanone	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	50 U	56 UJ
4-Methyl-2-pentanone	50 U	50 U	50 U	50 U	50 U	50 U	50 U	10 U	10 U	50 U	50 U	56 U
Acetone	50 UJ	100 U	25 U	25 U	**6.6 J**	50 U	100 U	10 U	10 U	25 U	25 U	56 UJ
Benzene	1.0 U	5.0 U	1.0 U	1.0 U	6.3	7.6	5.6	**3.5 B**	**3.5 B**	**0.37 J**	1.0 U	5.1 J
Bromodichloromethane	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	5.6 U
Bromoform	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	5.6 U
Bromomethane	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 UJ	5.6 U
Carbon disulfide	50 U	50 U	5.0 U	5.0 U	50 U	50 U	50 U	1.0 U	1.0 U	5.0 U	5.0 U	5.6 U
Carbon tetrachloride	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	5.6 U
Chlorobenzene	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	180
Chlorodibromomethane	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	5.6 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	**17**	**19**	**16**	**8**	**8.5**	**5.7**	1.0 U	5.6 U
Chloroform	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	5.6 U
Chloromethane	1.0 U	1.0 U	1.0 UJ	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6 UJ
cis-1,2-Dichloroethene	**1.9**	1.0 U	**1.1**	**1.1**	1.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	1.0 U	2.8 U
cis-1,3-Dichloropropene	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	5.6 U
Dichlorodifluoromethane	--	--	--	--	--	--	--	--	--	--	--	5.6 UJ
Ethylbenzene	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	**1.2 J**
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	28 U
Methylene chloride	1.0 U	5.0 U	5.0 UJ	5.0 UJ	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.6 U
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	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	5.6 U
Tetrachloroethene	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	5.6 U
Toluene	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	**0.27 J**	1.0 U	5.6 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	1.0 U	2.8 U
trans-1,3-Dichloropropene	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	5.6 U
Trichloroethene	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	5.6 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	5.6 U
Vinyl chloride	1.0 U	1.0 U	**0.59 J**	**0.60 J**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6 U
Xylenes, Total	3.0 U	3.0 U	2.0 U	2.0 U	3.0 U	**1.0 J**	3.0 U	1.0 U	1.0 U	2.0 U	2.0 U	5.6 U

See Generic Notes Pages.

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-118WT	MW01-118WT	MW01-119S1	MW01-119S1	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123S1
Date Sampled:	11/26/2001	9/16/2004	11/7/2001	11/28/2001	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	DUP	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds												
1,1,1-Trichloroethane	7.7 U	2.9 UJ	1.0 U	1.0 U	1.0 U	170 UJ	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
1,1,2,2-Tetrachloroethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
1,1,2-Trichloro-1,2,2-trifluoroethane	7.7 U	--	1.0 U	1.0 U	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
1,1-Dichloroethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
1,1-Dichloroethene	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
1,2-Dibromo-3-chloropropane	15 U	--	1.0 U	2.0 U	--	--	--	--	--	--	--	--
1,2-Dibromoethane	7.7 U	--	1.0 U	1.0 U	--	--	--	--	--	--	--	--
1,2-Dichloroethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
1,2-Dichloroethene, Total	--	5.7 U	--	--	2.0 U	1,700	2.0 U	2.0 U	2.0 U	6,900	540	110
1,2-Dichloropropane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
2-Butanone	77 UJ	72 U	2.0 U	10 U	25 UJ	4,200 U	25 UJ	**0.46 J**	25 U	12,000 U	**9.8 J**	170 U
2-Hexanone	77 UJ	140 U	2.0 U	10 U	50 U	8,300 U	50 U	50 U	50 U	25,000 U	1,100 U	330 U
4-Methyl-2-pentanone	77 U	140 U	2.0 U	10 U	50 U	8,300 U	50 U	50 U	50 U	25,000 U	1,100 U	330 U
Acetone	77 UJ	**9.1 J**	2.1 U	10 U	**2.1 J**	4,200 U	**2.1 J**	**3.4 J**	**2.6 J**	12,000 U	**27 J**	**8.5 J**
Benzene	5.1 J	5.6	1.0 U	1.0 U	1.0 U	170 U	**0.25 J**	**0.41 J**	**0.26 J**	500 U	13 J	**2.7 J**
Bromodichloromethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Bromoform	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Bromomethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 UJ	1.0 UJ	500 UJ	22 UJ	6.7 U
Carbon disulfide	7.7 U	14 U	1.0 U	1.0 U	5.0 U	830 U	5.0 U	5.0 U	5.0 U	2,500 U	110 U	33 U
Carbon tetrachloride	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Chlorobenzene	180	82	1.0 U	1.0 U	1.0 U	140 J	1.0 U	1.0 U	1.0 U	500 U	65	**21**
Chlorodibromomethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Chloroethane	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	**1.7**	1.0 U	500 U	22 U	6.7 U
Chloroform	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Chloromethane	7.7 UJ	2.9 U	1.0 U	1.0 U	1.0 UJ	170 U	1.0 UJ	1.0 U	1.0 U	500 U	22 U	6.7 U
cis-1,2-Dichloroethene	3.8 U	2.9 U	1.0 U	**0.25 J**	1.0 U	1,700	1.0 U	1.0 U	1.0 U	6,900	540	110
cis-1,3-Dichloropropene	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Dichlorodifluoromethane	7.7 U	--	1.0 U	1.0 U	--	--	--	--	--	--	--	--
Ethylbenzene	**1.3 J**	2.9 U	1.0 U	1.0 U	1.0 U	110 J	1.0 U	1.0 U	1.0 U	700	22	6.7 U
m,p-Xylene	--	--	--	--	--	--	--	--	--	--	--	--
Methyl tert-butyl ether	38 U	--	1.0 U	5.0 U	--	--	--	--	--	--	--	--
Methylene chloride	7.7 U	14 U	1.0 U	1.0 U	5.0 U	830 U	5.0 U	5.0 U	5.0 U	2,500 U	110 U	33 U
o-Xylene	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Tetrachloroethene	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Toluene	7.7 U	2.9 U	**0.37 J**	1.0 U	1.0 U	**38 J**	1.0 U	1.0 U	1.0 U	240 J	**6.6 J**	**1.3 J**
trans-1,2-Dichloroethene	3.8 U	2.9 U	1.0 U	0.50 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
trans-1,3-Dichloropropene	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 U
Trichloroethene	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	170 U	1.0 U	1.0 U	1.0 U	500 U	22 U	6.7 UJ
Trichlorofluoromethane	7.7 U	--	1.0 U	1.0 U	--	--	--	--	--	--	--	--
Vinyl chloride	7.7 U	2.9 U	1.0 U	1.0 U	1.0 U	8,000	1.0 U	1.0 U	1.0 U	13,000	480	230
Xylenes, Total	7.7 U	**8.5**	1.0 U	1.0 U	2.0 U	500	2.0 U	2.0 U	2.0 U	1,400	44	13

See Generic Notes Pages.

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-123WT	MW04-124S1	MW04-124WT	MW97-104S1	MW97-104S1	MW97-104S1	MW97-104S1	MW97-104WT	MW97-104WT	MW97-104WT	MW97-104WT	MW97-105S1
Date Sampled:	9/16/2004	9/15/2004	9/15/2004	12/10/1997	11/5/1998	5/20/2000	9/16/2004	12/10/1997	11/5/1998	5/20/2000	9/16/2004	12/10/1997
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds												
1,1,1-Trichloroethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 UJ	1.0 U
1,1,2,2-Tetrachloroethane	830 U	1.0 U	1.0 U	100 U	100 DUJ	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 UJ	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1-Dichloroethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,1-Dichloroethene	830 U	1.0 U	1.0 U	**5.2**	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	5.0 U	2.5 U	1.0 U	1.0 U
1,2-Dichloroethene, Total	9,400	**0.47 J**	2.0 U	3,900	4,300 D	4,700	2,400	1.0 U	**3**	**27**	**0.72 J**	1.0 U
1,2-Dichloropropane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
2-Butanone	21,000 U	25 U	25 U	1,000 UJ	5,000 DU	1,200 U	2,800 U	50 UJ	50 U	25 U	25 U	50 UJ
2-Hexanone	42,000 U	50 U	50 U	1,000 UJ	5,000 DU	1,200 U	5,600 U	R	50 U	25 U	50 U	R
4-Methyl-2-pentanone	42,000 U	50 U	50 U	1,000 U	5,000 DU	1,200 U	5,600 U	50 UJ	50 U	25 U	50 U	50 UJ
Acetone	21,000 U	25 U	**1.7 J**	1,000 U	10,000 DU	1,200 U	2,800 U	50 U	100 U	25 U	**1.2 J**	50 U
Benzene	830 U	1.0 U	**0.24 J**	500 U	100 DU	120 U	110 U	1.0 U	6	**4.1**	**4.9**	5.0 U
Bromodichloromethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Bromoform	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Bromomethane	830 U	1.0 UJ	1.0 UJ	100 U	100 DU	120 U	110 UJ	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Carbon disulfide	4,200 U	5.0 U	5.0 U	500 U	5,000 DU	120 U	560 U	50 U	50 U	2.5 U	5.0 U	50 U
Carbon tetrachloride	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chlorobenzene	830 U	1.0 U	1.0 U	200	100 DU	210	220	1.0 U	**9**	**7.8**	**6**	1.0 U
Chlorodibromomethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chloroethane	830 U	**0.77 J**	**0.60 J**	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chloroform	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Chloromethane	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 UJ	2.5 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	9,400	**0.47 J**	1.0 U	--	--	4,700	2,400	1.0 U	--	**26**	**0.43 J**	1.0 U
cis-1,3-Dichloropropene	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Dichlorodifluoromethane	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	830 U	1.0 U	1.0 U	**12.2**	100 DU	**14 J**	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
m,p-Xylene	--	--	--	--	200 DUJ	--	--	--	2.0 U	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	4,200 U	5.0 U	5.0 U	500 U	1,400 DU	120 U	560 U	5.0 U	5.0 U	2.5 U	5.0 U	5.0 U
o-Xylene	--	--	--	--	100 DU	--	--	--	1.0 U	--	--	--
Styrene	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Tetrachloroethene	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Toluene	830 U	**0.51 J**	**0.50 J**	**7.9**	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	830 U	1.0 U	1.0 U	--	--	**16 J**	110 U	1.0 U	--	**0.94 J**	**0.29 J**	1.0 U
trans-1,3-Dichloropropene	830 U	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Trichloroethene	830 UJ	1.0 U	1.0 U	100 U	100 DU	120 U	110 U	1.0 U	**3**	50	**0.59 J**	1.0 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	27,000	16	**0.27 J**	3,400	1,700 D	2,200	1,900	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U
Xylenes, Total	1,700 U	2.0 U	2.0 U	**4.2**	--	120 U	220 U	3.0 U	--	2.5 U	**3.1**	3.0 U

See Generic Notes Pages.

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW97-105S1	MW97-105S1	MW97-105S1	MW97-105WT	MW97-105WT	MW97-105WT	MW97-105WT	MW97-105WT	MW98-108S1	MW98-108S1	MW98-108S1	MW98-108S1
Date Sampled:	11/5/1998	5/23/2000	9/15/2004	12/10/1997	12/10/1997	11/5/1998	5/23/2000	9/15/2004	9/24/1998	11/5/1998	5/21/2000	9/15/2004
Sample Type:	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds												
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	100 DU	25 U	200 UJ
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	100 DUJ	25 U	200 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	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	100 DU	25 U	200 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.19 J**	1.0 U	1.0 U	100 DU	25 U	200 U
1,1-Dichloroethene	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	100 DU	25 U	200 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	100 DU	25 U	200 U
1,2-Dichloroethene, Total	2.0 U	1.0 U	2.0 U	1.0 U	**2**	2.0 U	1.0 U	2.0 U	1.0 U	**4,300 DJ**	**540**	**5,200**
1,2-Dichloropropane	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	100 DU	25 U	200 U
2-Butanone	50 U	10 UJ	25 U	50 UJ	50 UJ	50 U	10 UJ	25 U	50 U	5,000 DU	250 U	5,000 U
2-Hexanone	50 U	10 U	50 U	R	50 UJ	50 U	10 U	50 U	50 UJ	5,000 DU	250 U	10,000 U
4-Methyl-2-pentanone	50 U	10 U	50 U	50 U	50 U	50 U	10 U	50 U	50 U	5,000 DU	250 U	10,000 U
Acetone	100 U	**11**	**8.0 J**	50 U	100 U	100 U	**12**	**7.6 J**	50 U	10,000 DU	250 U	5,000 U
Benzene	5.0 U	1.0 U	**0.25 J**	5.0 U	5.0 U	5.0 U	**1**	**1.2**	1.0 U	500 DU	25 U	200 U
Bromodichloromethane	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	100 DU	25 U	200 U
Bromoform	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	100 DU	25 U	200 U
Bromomethane	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	100 DU	25 U	200 U
Carbon disulfide	50 U	1.0 U	5.0 U	50 U	50 U	50 U	1.0 U	5.0 U	50 U	5,000 DU	25 U	1,000 U
Carbon tetrachloride	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	100 DU	25 U	200 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.071 J**	1.0 U	1.0 U	100 DU	**3.2 J**	200 U
Chlorodibromomethane	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	100 DU	25 U	200 U
Chloroethane	1.0 U	**1.9**	**1.7**	1.0 U	1.0 U	1.0 U	**0.70 J**	**0.73 J**	1.0 U	100 DU	25 U	200 U
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**13**	1.0 U	1.0 U	1.0 U	**1,500 DJ**	25 U	200 U
Chloromethane	1.0 UJ	**0.44 J**	1.0 U	1.0 U	1.0 U	1.0 U	**0.47 J**	1.0 U	1.0 U	100 DU	25 U	200 U
cis-1,2-Dichloroethene	--	**0.15 J**	1.0 U	1.0 U	--	--	**0.64**	1.0 U	1.0 U	--	**540**	**5,200**
cis-1,3-Dichloropropene	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	100 DU	25 U	200 U
Dichlorodifluoromethane	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	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	100 DU	25 U	200 U
m,p-Xylene	2.0 U	--	--	--	--	2.0 UJ	--	--	--	200 DUJ	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	100 DU	25 U	1,000 U
o-Xylene	1.0 U	--	--	--	--	1.0 U	--	--	--	100 DU	--	--
Styrene	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	100 DU	25 U	200 U
Tetrachloroethene	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	100 DU	25 U	200 U
Toluene	1.0 U	1.0 U	**0.32 J**	1.0 U	1.0 U	1.0 U	1.0 U	**0.45 J**	1.0 U	100 DU	25 U	200 U
trans-1,2-Dichloroethene	--	0.50 U	1.0 U	1.0 U	--	--	0.50 U	1.0 U	1.0 U	--	12 U	200 U
trans-1,3-Dichloropropene	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	100 DU	25 U	200 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.40 J**	1.0 U	1.0 U	100 DU	25 U	200 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	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	**1,800 DJ**	**910**	**5,000**
Xylenes, Total	--	1.0 U	2.0 U	3.0 U	3.0 U	--	1.0 U	**2.9**	3.0 U	--	25 U	400 U

See Generic Notes Pages.

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-109S1	MW98-109S1	MW98-109S1	MW98-109S1	MW98-110S1	MW98-110S1	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111S1	MW98-111S1	MW98-111WT
Date Sampled:	11/5/1998	11/5/1998	5/22/2000	9/15/2004	11/5/1998	5/22/2000	9/17/2004	9/17/2004	11/6/1998	5/20/2000	9/17/2004	9/17/2004
Sample Type:	FS	DUP	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds												
1,1,1-Trichloroethane	100 DU	100 U	170 U	50 UJ	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
1,1,2,2-Tetrachloroethane	100 DUJ	100 UJ	170 U	50 U	100 DUJ	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	100 DU	100 U	170 U	50 U	100 DU	100 UJ	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
1,1-Dichloroethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
1,1-Dichloroethene	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	**2.0 J**	100 U	83 U	2.0 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
1,2-Dichloroethene, Total	3,700 DJ	4,200	770	180	17,000 DJ	3,700	13,000	2.0 U	3,200 EJ	610	170 U	4.0 U
1,2-Dichloropropane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
2-Butanone	5,000 DU	5,000 U	1,700 U	1,200 U	5,000 DU	1,000 U	10,000 U	**1.6 J**	50 U	1,000 U	2,100 U	**2.0 J**
2-Hexanone	5,000 DU	5,000 U	1,700 U	2,500 U	5,000 DU	1,000 U	21,000 U	50 U	50 U	1,000 U	4,200 U	100 U
4-Methyl-2-pentanone	5,000 DU	5,000 U	1,700 U	2,500 U	5,000 DU	1,000 U	21,000 U	50 U	50 U	1,000 U	4,200 U	100 U
Acetone	10,000 DU	10,000 U	1,700 U	1,200 U	10,000 DU	1,000 U	10,000 U	**7.6 J**	100 U	1,000 U	2,100 U	**8.2 J**
Benzene	100 DU	500 U	170 U	50 U	500 DU	100 U	420 U	1.0 U	35 J	46 J	95	13
Bromodichloromethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Bromoform	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Bromomethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 UJ	1.0 UJ	1.0 U	100 U	83 UJ	2.0 UJ
Carbon disulfide	5,000 DU	5,000 U	170 U	250 U	5,000 DU	100 U	2,100 U	5.0 U	50 U	100 U	420 U	10 U
Carbon tetrachloride	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Chlorobenzene	100 DU	100 U	60 J	79	100 DU	100 U	420 U	1.0 U	370 EJ	350	200	9.5
Chlorodibromomethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Chloroethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Chloroform	330 DJ	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Chloromethane	100 DU	100 U	170 U	50 U	100 DU	100 U	420 UJ	1.0 UJ	1.0 UJ	100 U	83 UJ	2.0 UJ
cis-1,2-Dichloroethene	--	--	770	180	--	3,700	13,000	1.0 U	--	610	83 U	2.0 U
cis-1,3-Dichloropropene	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Dichlorodifluoromethane	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1,500 EJ	1,700	1,700	44
m,p-Xylene	200 DUJ	200 UJ	--	--	200 DUJ	--	--	--	4,200 EJ	--	--	--
Methyl tert-butyl ether	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	100 DU	810 U	170 U	250 U	500 DU	100 U	1,300 JB	5.0 UJ	5.0 U	100 U	420 U	10 UJ
o-Xylene	100 DU	100 U	--	--	100 DU	--	--	--	2,000 EJ	--	--	--
Styrene	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Tetrachloroethene	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Toluene	100 DU	100 U	170 U	**12 J**	100 DU	100 U	420 U	1.0 U	810 EJ	950	810	**1.7 J**
trans-1,2-Dichloroethene	--	--	83 U	50 U	--	**17 J**	110 J	1.0 U	--	50 U	83 U	2.0 U
trans-1,3-Dichloropropene	100 DU	100 U	170 U	50 U	100 DU	100 U	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Trichloroethene	100 DU	100 U	170 U	50 U	720 D	56 J	420 U	1.0 U	1.0 U	100 U	83 U	2.0 U
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	--	--	--
Vinyl chloride	5,800 DJ	6,600	4,800	2,100	1,200 D	500	1,400	1.0 U	4,900 EJ	2,700	83 U	**0.88 J**
Xylenes, Total	--	--	170 U	100 U	--	100 U	830 U	2.0 U	--	4,900	5,400	150

See Generic Notes Pages.

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	SB97-110	SB97-111	SB97-111	SB98-119	SW04-01	TW01-120	TW01-120	TW01-120	TW98-108WT	TW98-108WT	TW98-108WT	TW98-109WT
Date Sampled:	11/17/1997	11/17/1997	11/18/1997	9/23/1998	9/17/2004	11/7/2001	11/7/2001	11/8/2001	11/5/1998	5/21/2000	9/15/2004	11/5/1998
Sample Type:	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS
Volatile Organic Compounds												
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--	--	--
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	**0.11 J**	1.0 U	1.0 U
1,1-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--	--	--
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U
1,2-Dichloroethene, Total	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	--	--	--	2.0 U	1.0 U	2.0 U	**14. J**
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 UJ	50 UJ	50 UJ	50 U	**1.5 J**	2.0 U	2.0 U	4.0 U	50 U	**1.7 J**	25 U	50 U
2-Hexanone	50 UJ	50 UJ	50 UJ	50 U	50 U	2.0 U	2.0 U	4.0 U	50 U	10 U	50 U	50 U
4-Methyl-2-pentanone	50 UJ	50 UJ	50 UJ	50 U	50 U	2.0 U	2.0 U	50 U	50 U	10 U	50 U	50 U
Acetone	50 UJ	50 UJ	50 UJ	50 U	**7.3 J**	2.0 U	10 U	4.0 U	100 U	10 U	**1.9 J**	100 U
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**0.19 J**	**0.23 J**	5.0 U	5.0 U	**0.77 JB**	**0.34 J**	7.0 J
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	50 U	50 U	50 U	50 U	5.0 U	1.0 U	1.0 U	5.0 U	50 U	1.0 U	5.0 U	50 U
Carbon tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	**0.21 J**	1.0 U	1.0 U	5.0 U	**1**	**0.95 J**	**0.96 J**	82
Chlorodibromomethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	**7.0 J**
Chloromethane	1.0 UJ	1.0 UJ	1.0 UJ	1.0 U	1.0 UJ	1.0 U	1.0 U	5.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	--	0.50 U	1.0 U	--
cis-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--	--	--
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m,p-Xylene	--	--	--	--	--	--	--	--	2.0 U	--	--	2.0 UJ
Methyl tert-butyl ether	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--	--	--
Methylene chloride	1.0 U	1.0 U	1.0 U	1.0 U	5.0 UJ	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U
o-Xylene	--	--	--	--	--	--	--	--	1.0 U	--	--	1.0 U
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	**0.19 J**	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	--	0.50 U	1.0 U	--
trans-1,3-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--	--	--
Vinyl chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	47. J
Xylenes, Total	3.0 U	3.0 U	3.0 U	3.0 U	2.0 U	1.0 U	1.0 U	5.0 U	--	1.0 U	2.0 U	--

See Generic Notes Pages.

TABLE C-1

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	TW98-109WT	TW98-109WT	TW98-110WT	TW98-110WT	TW98-111WT	TW98-111WT
Date Sampled:	5/22/2000	9/15/2004	11/5/1998	5/22/2000	11/6/1998	5/20/2000
Sample Type:	FS	FS	FS	FS	FS	FS
Volatile Organic Compounds						
1,1,1-Trichloroethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5.0 UJ	3.3 U	1.0 UJ	1.0 U	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	--	--	--	--	--	--
1,1,2-Trichloroethane	5.0 U	3.3 UJ	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane	--	--	--	--	--	--
1,2-Dibromoethane	--	--	--	--	--	--
1,2-Dichloroethane	5.0 U	3.3 U	5.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethene, Total	**18**	6.7 U	2.0 U	1.0 U	2.0 U	1.0 U
1,2-Dichloropropane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone	50 U	83 U	50 U	**0.90 J**	50 U	**2.0 J**
2-Hexanone	50 U	170 U	50 U	10 U	50 U	10 U
4-Methyl-2-pentanone	50 U	170 U	50 U	10 U	50 U	10 U
Acetone	50 U	**5.4 J**	100 U	10 U	100 U	10 U
Benzene	**3.4 JB**	**4**	5.0 U	**1.4 B**	**22**	**9.2**
Bromodichloromethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	5.0 U	17 U	50 U	1.0 U	50 U	1.0 U
Carbon tetrachloride	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	**60 B**	**110**	1.0 U	**0.084 J**	**5**	**2.3**
Chlorodibromomethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane	5.0 U	3.3 U	1.0 U	1.0 U	1.0 UJ	1.0 U
cis-1,2-Dichloroethene	**18**	3.3 U	--	0.50 U	--	**0.51**
cis-1,3-Dichloropropene	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane	--	--	--	--	--	--
Ethylbenzene	5.0 U	3.3 U	1.0 U	1.0 U	**27**	**13**
m,p-Xylene	--	--	2.0 UJ	--	**80**	--
Methyl tert-butyl ether	--	--	--	--	--	--
Methylene chloride	5.0 U	17 U	7.0 U	1.0 U	5.0 U	1.0 U
o-Xylene	--	--	1.0 U	--	**33**	--
Styrene	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	5.0 U	**1.2 J**	1.0 U	1.0 U	**3**	1.3 U
trans-1,2-Dichloroethene	2.5 U	3.3 U	--	0.50 U	--	**0.16 J**
trans-1,3-Dichloropropene	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5.0 U	3.3 U	1.0 U	1.0 U	1.0 U	**0.68 J**
Trichlorofluoromethane	--	--	--	--	--	--
Vinyl chloride	**160**	**2.4 J**	1.0 U	1.0 U	**3**	**1.1**
Xylenes, Total	5.0 U	**9.8**	--	1.0 U	--	**45**

See Generic Notes Pages.

C-2
Semi-Volatile Organic Compounds

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-129WT	MW-129WT	MW-129WT	MW-129WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW01-118WT	MW01-118WT	MW01-118WT
Date Sampled:	7/28/1995	6/12/1996	9/17/2004	9/17/2004	7/29/1995	7/29/1995	6/8/1996	9/15/2004	9/15/2004	11/26/2001	11/26/2001	9/16/2004
Sample Type:	FS	FS	FS	DUP	FS	DUP	FS	FS	DUP	FS	DUP	FS
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	25 U	25 U	5.6 U	7.7 U	40 U
1,2-Dichlorobenzene	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	25 U	25 U	5.6 U	7.7 U	40 U
1,3-Dichlorobenzene	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	25 U	25 U	5.6 U	7.7 U	40 U
1,4-Dichlorobenzene	1.0 U	1.0 U	10 U	10 U	1.0 U	1.0 U	1.0 U	25 U	25 U	**2.3 J**	**2.1 J**	40 U
2,4,5-Trichlorophenol	50 U	50 U	5.0 U	5.0 U	50 U	50 U	50 U	12 U	12 U	10 U	10 U	20 U
2,4,6-Trichlorophenol	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	16 U
2,4-Dichlorophenol	5.0 U	5.0 U	10 U	10 U	5.0 U	5.0 U	5.0 U	25 U	25 U	10 U	10 U	40 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
2,4-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	25 U	10 U	20 U
2,6-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
2-Chloronaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
2-Chlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
2-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	50 U	50 U	10 U	10 U	80 U
2-Nitrophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
3,3'-Dichlorobenzidine	20 U	20 U	4.0 U	4.0 U	20 U	20 U	20 U	10 U	10 U	10 U	10 U	16 U
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	50 U	50 U	10 U	10 U	80 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	20 U	20 U	20 U	20 U	50 UJ	50 UJ	25 U	25 U	80 U
4-Bromophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
4-Chloro-3-methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
4-Chloroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	50 U	50 U	10 U	10 U	80 U
4-Chlorophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
4-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
4-Nitroaniline	20 U	20 U	20 U	20 U	20 UJ	20 UJ	20 U	50 U	50 U	10 U	10 U	80 U
Acenaphthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Acenaphthylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Acetophenone	--	--	--	--	--	--	--	--	--	10 U	10 U	--
Anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Atrazine	--	--	--	--	--	--	--	--	--	10 U	10 U	--
Benzo(a)anthracene	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	2.5 U	2.5 U	10 U	10 U	4.0 U
Benzo(a)pyrene	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	8.0 U
Benzo(b)fluoranthene	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	8.0 U
Benzo(g,h,i)perylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Benzo(k)fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
bis(2-Chloroethoxy)methane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
bis(2-Chloroethyl)ether	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	16 U
bis(2-Chloroisopropyl) ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	**3.3 J**	**3.9 J**	20 U
bis(2-Ethylhexyl)phthalate	**1.2 J**	5.0 U	5.0 U	**6.7**	**5**	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Butyl benzyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-129WT	MW-129WT	MW-129WT	MW-129WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW01-118WT	MW01-118WT	MW01-118WT
Date Sampled:	7/28/1995	6/12/1996	9/17/2004	9/17/2004	7/29/1995	7/29/1995	6/8/1996	9/15/2004	9/15/2004	11/26/2001	11/26/2001	9/16/2004
Sample Type:	FS	FS	FS	DUP	FS	DUP	FS	FS	DUP	FS	DUP	FS
Semivolatile Organic Compounds (Cont'd.)												
Caprolactam	--	--	--	--	--	--	--	--	--	10 U	10 U	--
Carbazole	10 U	10 U	10 U	10 U	10 U	10 U	10 U	25 U	25 U	10 U	10 U	40 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Di-n-butyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Di-n-octyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Dibenz(a,h)anthracene	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	8.0 U
Dibenzofuran	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Diethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Fluorene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Hexachlorocyclopentadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	12 U	12 U	10 U	50 U	20 U
Hexachloroethane	5.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	12 U	12 U	10 U	10 U	20 U
Indeno(1,2,3-cd)pyrene	5.0 U	5.0 U	2.0 U	2.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	8.0 U
Isophorone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Isopropylbenzene	--	--	--	--	--	--	--	--	--	**0.76 J**	7.7 U	--
N-Nitroso-di-n-propylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
N-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	**1.3 J**	**1.6 J**	20 U
Nitrobenzene	5.0 U	5.0 U	4.0 U	4.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	16 U
Pentachlorophenol	25 U	25 U	20 U	20 U	25 U	25 U	25 U	50 U	50 U	10 U	10 U	80 U
Phenanthrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Phenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U
Pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	12 U	12 U	10 U	10 U	20 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-119S1	MW01-119S1	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123S1	MW04-123WT	MW04-124S1
Date Sampled:	11/7/2001	11/28/2001	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	1.0 U	1.0 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U	10 U	10 U	10 U
1,2-Dichlorobenzene	1.0 U	1.0 U	10 U	19 J	10 U	40 U	10 U	40 U	100 U	10 U	10 U	10 U
1,3-Dichlorobenzene	1.0 U	1.0 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U	10 U	10 U	10 U
1,4-Dichlorobenzene	1.0 U	1.0 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	10 U	10 U	4.0 U	16 U	4.0 U	16 U	4.0 U	16 U	40 U	4.0 U	4.0 U	4.0 U
2,4-Dichlorophenol	10 U	10 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	10 U	10 U	20 U	80 U	20 U	80 U	20 U	80 U	200 U	20 U	20 U	20 U
2-Nitrophenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	10 U	10 U	4.0 U	16 U	4.0 U	16 U	4.0 U	16 U	40 U	4.0 U	4.0 U	4.0 U
3-Nitroaniline	10 U	10 U	20 U	80 U	20 U	80 U	20 U	80 U	200 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	25 U	25 U	20 U	80 U	20 U	80 UJ	20 U	80 UJ	200 UJ	20 U	20 U	20 U
4-Bromophenyl phenyl ether	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	10 U	10 U	20 U	80 U	20 U	80 U	20 U	80 U	200 U	20 U	20 U	20 U
4-Chlorophenyl phenyl ether	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	1.3 J #	5.0 U
4-Nitroaniline	10 U	10 U	20 U	80 U	20 U	80 U	20 U	80 U	200 U	20 U	20 U	20 U
Acenaphthene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Acetophenone	10 U	10 U	--	--	--	--	--	--	--	--	--	--
Anthracene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Atrazine	10 U	10 U	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	10 U	10 U	1.0 U	4.0 U	1.0 U	4.0 U	1.0 U	4.0 U	10 U	1.0 U	1.0 U	1.0 U
Benzo(a)pyrene	10 U	10 U	2.0 U	8.0 U	2.0 U	8.0 U	2.0 U	8.0 U	20 U	2.0 U	2.0 U	2.0 U
Benzo(b)fluoranthene	10 U	10 U	2.0 U	8.0 U	2.0 U	8.0 U	2.0 U	8.0 U	20 U	2.0 U	2.0 U	2.0 U
Benzo(g,h,i)perylene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	10 U	10 U	4.0 U	16 U	4.0 U	16 U	4.0 U	16 U	40 U	4.0 U	4.0 U	4.0 U
bis(2-Chloroisopropyl) ether	10 U	10 U	6.3	12 J	5.0 U	20 U	5.0 U	24	7.8 J	5.0 U	6.7	5.0 U
bis(2-Ethylhexyl)phthalate	10 U	10 U	3.8 U	20 U	5.0 U	20 U	3.5 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Butyl benzyl phthalate	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-119S1	MW01-119S1	MW01-119S1	MW04-118S1	MW04-119WT	MW04-121S1	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123S1	MW04-123WT	MW04-124S1
Date Sampled:	11/7/2001	11/28/2001	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/16/2004	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (Cont'd.)												
Caprolactam	10 U	10 U	--	--	--	--	--	--	--	--	--	--
Carbazole	10 U	10 U	10 U	40 U	10 U	40 U	10 U	40 U	100 U	10 U	10 U	10 U
Chrysene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Di-n-butyl phthalate	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	10 U	10 U	2.0 U	8.0 U	2.0 U	8.0 U	2.0 U	8.0 U	20 U	2.0 U	2.0 U	2.0 U
Dibenzofuran	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Diethyl phthalate	**3.4 J**	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Fluoranthene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Fluorene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	10 U	10 U	2.0 U	8.0 U	2.0 U	8.0 U	2.0 U	8.0 U	20 U	2.0 U	2.0 U	2.0 U
Isophorone	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	1.0 U	1.0 U	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Naphthalene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	**9.0 J**	50 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	10 U	10 U	4.0 U	16 U	4.0 U	16 U	4.0 U	16 U	40 U	4.0 U	4.0 U	4.0 U
Pentachlorophenol	10 U	10 U	20 U	80 U	20 U	80 U	20 U	80 U	200 U	20 U	20 U	20 U
Phenanthrene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Phenol	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U
Pyrene	10 U	10 U	5.0 U	20 U	5.0 U	20 U	5.0 U	20 U	50 U	5.0 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-124WT	MW97-104S1	MW97-104S1	MW97-104S1	MW97-104S1	MW97-104WT	MW97-104WT	MW97-104WT	MW97-104WT	MW97-105S1	MW97-105S1	MW97-105WT
Date Sampled:	9/15/2004	12/10/1997	12/8/1998	5/20/2000	9/16/2004	12/10/1997	11/5/1998	5/20/2000	9/16/2004	12/10/1997	9/15/2004	12/10/1997
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	10 U	5.0 U	5.0 U	--	10 U	5.9 U	5.0 U	--	40 U	5.0 U	10 U	5.0 U
1,2-Dichlorobenzene	10 U	**11.7**	**9**	120 U	**17**	1.0 U	5.0 U	2.5 U	40 U	1.0 U	10 U	1.0 U
1,3-Dichlorobenzene	10 U	100 U	5.0 U	--	10 U	1.0 U	5.0 U	--	40 U	1.0 U	10 U	1.0 U
1,4-Dichlorobenzene	10 U	**13.7**	**7**	120 U	**13**	1.0 U	5.0 U	**3.0 J**	40 U	1.0 U	10 U	1.0 U
2,4,5-Trichlorophenol	5.0 U	50 U	5.0 U	--	5.0 U	59 U	5.0 U	--	20 U	50 U	5.0 U	50 U
2,4,6-Trichlorophenol	4.0 U	5.0 U	5.0 U	--	4.0 U	5.9 U	5.0 U	--	16 U	5.0 U	4.0 U	5.0 U
2,4-Dichlorophenol	10 U	5.0 U	5.0 U	--	10 U	5.9 U	5.0 U	--	40 U	5.0 U	10 U	5.0 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	20 U	20 U	20 U	--	20 U	23 U	20 U	--	80 U	20 U	20 U	20 U
2-Nitrophenol	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 UJ	5.0 U
3,3'-Dichlorobenzidine	4.0 U	20 U	20 U	--	4.0 U	23 U	20 U	--	16 U	20 U	4.0 U	20 U
3-Nitroaniline	20 U	20 U	20 U	--	20 U	23 U	20 U	--	80 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 U	20 U	--	20 U	23 U	20 U	--	80 UJ	20 U	20 UJ	20 U
4-Bromophenyl phenyl ether	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	20 U	20 U	20 U	--	20 U	23 U	20 U	--	80 U	20 U	20 U	20 U
4-Chlorophenyl phenyl ether	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	5.0 U	5.0 U	--	--	5.0 U	5.9 U	--	--	20 U	5.0 U	5.0 U	5.0 U
4-Nitroaniline	20 U	20 U	20 UJ	--	20 U	23 U	20 U	--	80 U	20 U	20 U	20 U
Acenaphthene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Acetophenone	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Atrazine	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	1.0 U	5.0 U	5.0 U	--	1.0 U	5.9 U	5.0 U	--	4.0 U	5.0 U	1.0 U	5.0 U
Benzo(a)pyrene	2.0 U	5.0 U	5.0 U	--	2.0 U	5.9 U	5.0 U	--	8.0 U	5.0 U	2.0 U	5.0 U
Benzo(b)fluoranthene	2.0 U	5.0 U	5.0 U	--	2.0 U	5.9 U	5.0 U	--	8.0 U	5.0 U	2.0 U	5.0 U
Benzo(g,h,i)perylene	5.0 U	5.0 U	5.0 UJ	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	4.0 U	5.0 U	**5**	--	4.0 U	5.9 U	5.0 U	--	16 U	5.0 U	4.0 U	5.0 U
bis(2-Chloroisopropyl) ether	5.0 U	**12**	5.0 U	--	**5.4**	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate	5.0 U	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Butyl benzyl phthalate	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-124WT	MW97-104S1	MW97-104S1	MW97-104S1	MW97-104S1	MW97-104WT	MW97-104WT	MW97-104WT	MW97-104WT	MW97-105S1	MW97-105S1	MW97-105WT
Date Sampled:	9/15/2004	12/10/1997	12/8/1998	5/20/2000	9/16/2004	12/10/1997	11/5/1998	5/20/2000	9/16/2004	12/10/1997	9/15/2004	12/10/1997
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (Cont'd.)												
Caprolactam	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	10 U	5.0 U	5.0 UJ	--	10 U	5.0 U	5.0 U	--	40 U	5.0 U	10 U	5.0 U
Chrysene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Di-n-butyl phthalate	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	2.0 U	5.0 U	5.0 U	--	2.0 U	5.9 U	5.0 U	--	8.0 U	5.0 U	2.0 U	5.0 U
Dibenzofuran	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Diethyl phthalate	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Fluoranthene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Fluorene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5.0 U	5.0 U	5.0 UJ	--	5.0 U	5.9 U	5.0 UJ	--	20 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	2.0 U	5.0 U	5.0 U	--	2.0 U	5.9 U	5.0 U	--	8.0 U	5.0 U	2.0 U	5.0 U
Isophorone	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 UJ	--	20 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U	5.0 U	120 UJ	5.0 U	5.9 U	5.0 U	2.5 UJ	20 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	4.0 U	5.0 U	5.0 U	--	4.0 U	5.9 U	5.0 U	--	16 U	5.0 U	4.0 U	5.0 U
Pentachlorophenol	20 U	20 U	5.0 U	--	20 U	29 U	5.0 U	--	80 U	20 U	20 U	20 U
Phenanthrene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Phenol	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U
Pyrene	5.0 U	5.0 U	5.0 U	--	5.0 U	5.9 U	5.0 U	--	20 U	5.0 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW97-105WT	MW97-105WT	MW98-108S1	MW98-108S1	MW98-108S1	MW98-109S1	MW98-109S1	MW98-109S1	MW98-110S1	MW98-110S1	MW98-110WT	MW98-111S1
Date Sampled:	12/10/1997	9/15/2004	9/24/1998	11/5/1998	9/15/2004	11/5/1998	11/5/1998	9/15/2004	11/5/1998	9/17/2004	9/17/2004	11/6/1998
Sample Type:	DUP	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U
1,2-Dichlorobenzene	1.0 U	10 U	1.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U
1,3-Dichlorobenzene	1.0 U	10 U	1.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U
1,4-Dichlorobenzene	1.0 U	10 U	1.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U
2,4,5-Trichlorophenol	50 U	5.0 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	4.0 U	4.0 U	5.0 U
2,4-Dichlorophenol	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U
2,4-Dimethylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2,6-Dinitrotoluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
2-Nitrophenol	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	20 U	4.0 U	20 U	20 U	4.0 U	20 U	20 U	4.0 U	20 U	4.0 U	4.0 U	20 U
3-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Bromophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
4-Chlorophenyl phenyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	5.0 U	**0.88 J #**	5.0 U	--	5.0 U	--	--	5.0 U	--	5.0 U	5.0 U	--
4-Nitroaniline	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Acenaphthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	1.0 U	5.0 U	1.0 U	1.0 U	5.0 U
Benzo(a)pyrene	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Benzo(b)fluoranthene	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Benzo(g,h,i)perylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	4.0 U	4.0 U	5.0 U
bis(2-Chloroisopropyl) ether	5.0 U	5.0 U	5.0 U	5.0 U	**0.92 J**	5.0 U	5.0 U	5.0 U	5.0 U	**1.0 J**	**3.8 J**	**31**
bis(2-Ethylhexyl)phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	**1.0 J**	**1.2 J**	5.0 U
Butyl benzyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW97-105WT	MW97-105WT	MW98-108S1	MW98-108S1	MW98-108S1	MW98-109S1	MW98-109S1	MW98-109S1	MW98-110S1	MW98-110S1	MW98-110WT	MW98-111S1
Date Sampled:	12/10/1997	9/15/2004	9/24/1998	11/5/1998	9/15/2004	11/5/1998	11/5/1998	9/15/2004	11/5/1998	9/17/2004	9/17/2004	11/6/1998
Sample Type:	DUP	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (Cont'd.)												
Caprolactam	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	5.0 U	10 U	10 U	5.0 U	10 U	5.0 U	5.0 U	10 U	5.0 U	10 U	10 U	5.0 U
Chrysene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Dibenzofuran	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Diethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
Hexachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	5.0 U	2.0 U	5.0 U	2.0 U	2.0 U	5.0 U
Isophorone	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	--	--	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
N-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Nitrobenzene	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	5.0 U	4.0 U	5.0 U	4.0 U	4.0 U	5.0 U
Pentachlorophenol	20 U	20 U	20 U	5.0 U	20 U	5.0 U	5.0 U	20 U	5.0 U	20 U	20 U	5.0 U
Phenanthrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	5.0 U	**0.63 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-111S1	MW98-111WT	SB97-110	SB97-111	SB97-111	SB98-119	SW04-01	TW01-120	TW01-120	TW01-120	TW98-108WT	TW98-108WT
Date Sampled:	9/17/2004	9/17/2004	11/17/1997	11/17/1997	11/18/1997	9/23/1998	9/17/2004	11/7/2001	11/7/2001	11/8/2001	11/5/1998	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS
Semivolatile Organic Compounds												
1,2,4-Trichlorobenzene	40 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	1.0 U	5.0 U	5.0 U	10 U
1,2-Dichlorobenzene	40 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U
1,3-Dichlorobenzene	40 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	1.0 U	1.0 U	5.0 U	5.0 U	10 U
1,4-Dichlorobenzene	40 U	50 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U	10 U	1.0 U	5.0 U	5.0 U	10 U
2,4,5-Trichlorophenol	20 U	25 U	50 U	50 U	50 U	50 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	16 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	10 U	10 U	10 U	5.0 U	4.0 U
2,4-Dichlorophenol	40 U	50 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	5.0 U	10 U
2,4-Dimethylphenol	**4.5 J**	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2,4-Dinitrotoluene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2,6-Dinitrotoluene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2-Chloronaphthalene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2-Chlorophenol	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2-Methylnaphthalene	**3.2 J**	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2-Methylphenol	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
2-Nitroaniline	80 U	100 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U	20 U	20 U
2-Nitrophenol	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	16 U	20 U	20 U	20 U	20 U	20 U	4.0 U	10 U	10 U	10 U	20 U	4.0 U
3-Nitroaniline	80 U	100 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U	20 U	20 U
4,6-Dinitro-2-methylphenol	80 U	100 U	20 U	20 U	20 U	20 U	20 U	25 U	25 U	25 U	20 U	20 UJ
4-Bromophenyl phenyl ether	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
4-Chloroaniline	80 U	100 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U	20 U	20 U
4-Chlorophenyl phenyl ether	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
4-Methylphenol	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	--	5.0 U
4-Nitroaniline	80 U	100 U	20 U	20 U	20 U	20 U	20 U	10 U	10 U	10 U	20 U	20 U
Acenaphthene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Acenaphthylene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Acetophenone	--	--	--	--	--	--	--	10 U	10 U	10 U	--	--
Anthracene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Atrazine	--	--	--	--	--	--	--	10 U	10 U	10 U	--	--
Benzo(a)anthracene	4.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	10 U	10 U	10 U	5.0 U	1.0 U
Benzo(a)pyrene	8.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	10 U	10 U	10 U	5.0 U	2.0 U
Benzo(b)fluoranthene	8.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	10 U	10 U	10 U	5.0 U	2.0 U
Benzo(g,h,i)perylene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Benzo(k)fluoranthene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	16 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	10 U	10 U	10 U	5.0 U	4.0 U
bis(2-Chloroisopropyl) ether	**47**	**6.5 J**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	**0.98 J**
bis(2-Ethylhexyl)phthalate	**6.2 J**	25 U	5.0 U	0.52 U	5.0 U	5.0 U	**0.57 J**	10 U	10 U	10 U	5.0 U	**11**
Butyl benzyl phthalate	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-111S1	MW98-111WT	SB97-110	SB97-111	SB97-111	SB98-119	SW04-01	TW01-120	TW01-120	TW01-120	TW98-108WT	TW98-108WT
Date Sampled:	9/17/2004	9/17/2004	11/17/1997	11/17/1997	11/18/1997	9/23/1998	9/17/2004	11/7/2001	11/7/2001	11/8/2001	11/5/1998	9/15/2004
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS
Semivolatile Organic Compounds (Cont'd.)												
Caprolactam	--	--	--	--	--	--	--	10 U	10 U	10 U	--	--
Carbazole	40 U	50 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U
Chrysene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Di-n-butyl phthalate	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Di-n-octyl phthalate	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	8.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	10 U	10 U	10 U	5.0 U	2.0 U
Dibenzofuran	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Diethyl phthalate	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Dimethyl phthalate	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Fluoranthene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Fluorene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Hexachlorobenzene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Hexachlorobutadiene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	50 U	5.0 UJ	5.0 U
Hexachloroethane	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	8.0 U	10 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	10 U	10 U	10 U	5.0 U	2.0 U
Isophorone	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Isopropylbenzene	--	--	--	--	--	--	--	1.0 U	1.0 U	5.0 U	--	--
N-Nitroso-di-n-propylamine	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 UJ	5.0 U
N-Nitrosodiphenylamine	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Naphthalene	88	5.7 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Nitrobenzene	16 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	10 U	10 U	10 U	5.0 U	4.0 U
Pentachlorophenol	80 U	100 U	25 U	25 U	25 U	25 U	20 U	10 U	10 U	10 U	5.0 U	20 U
Phenanthrene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Phenol	20 U	25 U	5.0 U	5.0 U	5.0 U	18	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U
Pyrene	20 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U	10 U	10 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	TW98-109WT	TW98-109WT	TW98-109WT	TW98-110WT	TW98-111WT
Date Sampled:	11/5/1998	5/22/2000	9/15/2004	11/5/1998	11/6/1998
Sample Type:	FS	FS	FS	FS	FS
Semivolatile Organic Compounds					
1,2,4-Trichlorobenzene	5.0 U	--	40 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	40 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	--	40 U	5.0 U	5.0 U
1,4-Dichlorobenzene	**6**	**8.9 J**	**4.1 J**	5.0 U	5.0 U
2,4,5-Trichlorophenol	5.0 U	--	20 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	5.0 U	--	16 U	5.0 U	5.0 U
2,4-Dichlorophenol	5.0 U	--	40 U	5.0 U	5.0 U
2,4-Dimethylphenol	5.0 U	--	20 U	5.0 U	5.0 U
2,4-Dinitrotoluene	5.0 U	--	20 U	5.0 U	5.0 U
2,6-Dinitrotoluene	5.0 U	--	20 U	5.0 U	5.0 U
2-Chloronaphthalene	5.0 U	--	20 U	5.0 U	5.0 U
2-Chlorophenol	5.0 U	--	20 U	5.0 U	5.0 U
2-Methylnaphthalene	5.0 U	--	20 U	5.0 U	5.0 U
2-Methylphenol	5.0 U	--	20 U	5.0 U	5.0 U
2-Nitroaniline	20 U	--	80 U	20 U	20 U
2-Nitrophenol	5.0 U	--	20 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	20 U	--	16 U	20 U	20 U
3-Nitroaniline	20 U	--	80 U	20 U	20 U
4,6-Dinitro-2-methylphenol	20 U	--	80 UJ	20 U	20 U
4-Bromophenyl phenyl ether	5.0 U	--	20 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5.0 U	--	20 U	5.0 U	5.0 U
4-Chloroaniline	20 U	--	80 U	20 U	20 U
4-Chlorophenyl phenyl ether	5.0 U	--	20 U	5.0 U	5.0 U
4-Methylphenol	--	--	20 U	--	--
4-Nitroaniline	20 U	--	80 U	20 U	20 U
Acenaphthene	5.0 U	--	20 U	5.0 U	5.0 U
Acenaphthylene	5.0 U	--	20 U	5.0 U	5.0 U
Acetophenone	--	--	--	--	--
Anthracene	5.0 U	--	20 U	5.0 U	5.0 U
Atrazine	--	--	--	--	--
Benzo(a)anthracene	5.0 U	--	4.0 U	5.0 U	5.0 U
Benzo(a)pyrene	5.0 U	--	8.0 U	5.0 U	5.0 UJ
Benzo(b)fluoranthene	5.0 U	--	8.0 U	5.0 U	5.0 UJ
Benzo(g,h,i)perylene	5.0 U	--	20 U	5.0 U	5.0 UJ
Benzo(k)fluoranthene	5.0 U	--	20 U	5.0 U	5.0 UJ
bis(2-Chloroethoxy)methane	5.0 U	--	20 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	5.0 U	--	16 U	5.0 U	5.0 U
bis(2-Chloroisopropyl) ether	5.0 U	--	**4.0 J**	5.0 U	**7**
bis(2-Ethylhexyl)phthalate	5.0 U	--	20 U	5.0 U	5.0 U
Butyl benzyl phthalate	5.0 U	--	20 U	5.0 U	5.0 U

See Generic Notes Pages.

TABLE C-2

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	TW98-109WT	TW98-109WT	TW98-109WT	TW98-110WT	TW98-111WT
Date Sampled:	11/5/1998	5/22/2000	9/15/2004	11/5/1998	11/6/1998
Sample Type:	FS	FS	FS	FS	FS
Semivolatile Organic Compounds (Cont'd.)					
Caprolactam	--	--	--	--	--
Carbazole	5.0 U	--	40 U	5.0 U	5.0 U
Chrysene	5.0 U	--	20 U	5.0 U	5.0 U
Di-n-butyl phthalate	5.0 U	--	20 U	5.0 U	5.0 U
Di-n-octyl phthalate	5.0 U	--	20 U	5.0 U	5.0 UJ
Dibenz(a,h)anthracene	5.0 U	--	8.0 U	5.0 U	5.0 UJ
Dibenzofuran	5.0 U	--	20 U	5.0 U	5.0 U
Diethyl phthalate	5.0 U	--	20 U	5.0 U	5.0 U
Dimethyl phthalate	5.0 U	--	20 U	5.0 U	5.0 U
Fluoranthene	5.0 U	--	20 U	5.0 U	5.0 U
Fluorene	5.0 U	--	20 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	--	20 U	5.0 U	5.0 U
Hexachlorobutadiene	5.0 U	--	20 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5.0 UJ	--	20 U	5.0 UJ	5.0 UJ
Hexachloroethane	5.0 U	--	20 U	5.0 U	5.0 U
Indeno(1,2,3-cd)pyrene	5.0 U	--	8.0 U	5.0 U	5.0 UJ
Isophorone	5.0 U	--	20 U	5.0 U	5.0 U
Isopropylbenzene	--	--	--	--	--
N-Nitroso-di-n-propylamine	5.0 UJ	--	20 U	5.0 UJ	5.0 UJ
N-Nitrosodiphenylamine	5.0 U	--	20 U	5.0 U	5.0 U
Naphthalene	5.0 U	0.82 J	20 U	5.0 U	5.0 U
Nitrobenzene	5.0 U	--	16 U	5.0 U	5.0 U
Pentachlorophenol	5.0 U	--	80 U	5.0 U	5.0 U
Phenanthrene	5.0 U	--	20 U	5.0 U	5.0 U
Phenol	5.0 U	--	20 U	5.0 U	5.0 U
Pyrene	5.0 U	--	20 U	5.0 U	5.0 U

See Generic Notes Pages.

C-3
Polychlorinated Biphenyls

TABLE C-3

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-129WT	MW-129WT	MW-144WT	MW-144WT	MW97-104S1	MW97-104S1	MW97-104WT	MW97-104WT	MW97-105S1	MW97-105S1
Date Sampled:	7/28/1995	6/12/1996	7/29/1995	7/29/1995	12/10/1997	5/20/2000	12/10/1997	5/20/2000	12/10/1997	5/23/2000
Sample Type:	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS
PCBs, Dissolved										
Aroclor-1016	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.20 U	R	0.20 U	0.21 U	0.20 U
Aroclor-1221	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.20 U	R	0.20 U	0.21 U	0.20 U
Aroclor-1232	0.40 U	0.40 U	0.40 U	0.42 U	0.40 U	0.40 U	R	0.40 U	0.42 U	0.40 U
Aroclor-1242	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.20 U	R	0.20 U	0.21 U	0.20 U
Aroclor-1248	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.20 U	R	0.20 U	0.21 U	0.20 U
Aroclor-1254	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.20 U	R	0.20 U	0.21 U	0.20 U
Aroclor-1260	0.20 U	0.20 U	0.20 U	0.21 U	0.20 U	0.20 U	R	0.20 U	0.21 U	0.20 U
Aroclor-1262	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--
Total PCBs	ND	ND	ND	ND	ND	--	ND	--	ND	--
PCBs, Total										
Aroclor-1016	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	R	0.20 U	0.20 U	0.20 U
Aroclor-1221	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	R	0.20 U	0.20 U	0.20 U
Aroclor-1232	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	R	0.40 U	0.41 U	0.40 U
Aroclor-1242	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	R	0.20 U	0.20 U	0.20 U
Aroclor-1248	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	R	0.20 U	0.20 U	0.20 U
Aroclor-1254	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	R	0.20 U	0.20 U	0.20 U
Aroclor-1260	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	R	0.20 U	0.20 U	0.20 U
Aroclor-1262	--	--	--	--	--	--	--	--	--	--
Aroclor-1268	--	--	--	--	--	--	--	--	--	--
Total PCBs	ND	ND	ND	ND	ND	--	ND	--	ND	--

See Generic Notes Pages.

TABLE C-3

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW97-105WT	MW97-105WT	MW97-105WT	MW98-108S1	MW98-108S1	MW98-108S1	MW98-109S1	MW98-109S1	MW98-109S1	MW98-110S1
Date Sampled:	12/10/1997	12/10/1997	5/23/2000	9/24/1998	11/5/1998	5/21/2000	11/5/1998	11/5/1998	5/22/2000	11/5/1998
Sample Type:	FS	DUP	FS	FS	FS	FS	FS	DUP	FS	FS
PCBs, Dissolved										
Aroclor-1016	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1221	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1232	0.42 U	0.40 U	0.40 U	0.40 U	0.10 U	0.40 U	0.10 U	0.10 U	0.40 U	0.10 U
Aroclor-1242	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1248	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1254	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1260	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1262	--	--	--	--	0.10 U	--	0.10 U	0.10 U	--	0.10 U
Aroclor-1268	--	--	--	--	0.10 U	--	0.10 U	0.10 U	--	0.10 U
Total PCBs	ND	ND	--	ND	--	--	--	--	--	--
PCBs, Total										
Aroclor-1016	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1221	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1232	0.42 U	0.40 U	0.40 U	0.40 U	0.10 U	0.40 U	0.10 U	0.10 U	0.40 U	0.10 U
Aroclor-1242	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1248	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1254	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1260	0.21 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U	0.10 U	0.20 U	0.10 U
Aroclor-1262	--	--	--	--	0.10 U	--	0.10 U	0.10 U	--	0.10 U
Aroclor-1268	--	--	--	--	0.10 U	--	0.10 U	0.10 U	--	0.10 U
Total PCBs	0.41	ND	--	ND	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-3

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-110S1	MW98-111S1	MW98-111S1	SB97-110	SB97-111	SB97-111	SB98-119	TW98-108WT	TW98-108WT	TW98-109WT
Date Sampled:	5/22/2000	11/6/1998	5/20/2000	11/17/1997	11/17/1997	11/18/1997	9/23/1998	11/5/1998	5/21/2000	11/5/1998
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
PCBs, Dissolved										
Aroclor-1016	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1221	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1232	0.40 U	0.10 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.10 U	0.40 U	0.10 U
Aroclor-1242	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1248	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1254	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1260	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1262	--	0.10 U	--	--	--	--	--	0.10 U	--	0.10 U
Aroclor-1268	--	0.10 U	--	--	--	--	--	0.10 U	--	0.10 U
Total PCBs	--	--	--	ND	ND	ND	ND	--	--	--
PCBs, Total										
Aroclor-1016	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1221	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1232	0.40 U	0.10 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.10 U	0.40 U	0.10 U
Aroclor-1242	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1248	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.67	0.10 U	0.20 U	0.10 U
Aroclor-1254	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1260	0.20 U	0.10 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.10 U	0.20 U	0.10 U
Aroclor-1262	--	0.10 U	--	--	--	--	--	0.10 U	--	0.10 U
Aroclor-1268	--	0.10 U	--	--	--	--	--	0.10 U	--	0.10 U
Total PCBs	--	--	--	ND	ND	ND	0.67	--	--	--

See Generic Notes Pages.

TABLE C-3

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYLS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	TW98-109WT	TW98-110WT	TW98-110WT	TW98-111WT	TW98-111WT
Date Sampled:	5/22/2000	11/5/1998	5/22/2000	11/6/1998	5/20/2000
Sample Type:	FS	FS	FS	FS	FS
PCBs, Dissolved					
Aroclor-1016	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1221	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1232	0.40 U	0.10 U	0.40 U	0.10 U	0.40 U
Aroclor-1242	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1248	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1254	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1260	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1262	--	0.10 U	--	0.10 U	--
Aroclor-1268	--	0.10 U	--	0.10 U	--
Total PCBs	--	--	--	--	--
PCBs, Total					
Aroclor-1016	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1221	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1232	0.40 U	0.10 U	0.40 U	0.10 U	0.40 U
Aroclor-1242	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1248	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1254	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1260	0.20 U	0.10 U	0.20 U	0.10 U	0.20 U
Aroclor-1262	--	0.10 U	--	0.10 U	--
Aroclor-1268	--	0.10 U	--	0.10 U	--
Total PCBs	--	--	--	--	--

See Generic Notes Pages.

C-4
Inorganic Constituents

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW-129WT	MW-129WT	MW-129WT	MW-129WT	MW-129WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW-144WT	MW01-118WT	MW01-119S1
Date Sampled:	5/1/2000	7/28/1995	6/12/1996	9/17/2004	9/17/2004	7/29/1995	7/29/1995	9/15/2004	9/15/2004	12/21/2004	9/16/2004	9/16/2004
Sample Type:	FS	FS	FS	FS	DUP	FS	DUP	FS	DUP	FS	FS	FS
Inorganics, Dissolved												
Aluminum	--	100 U	100 U	--	--	100 U	R	--	--	--	--	--
Antimony	--	5.0 U	5.0 U	--	--	5.0 U	5.0 U	--	--	--	--	--
Arsenic	--	**22.3**	**7.3**	**37.5**	**37.2**	**5.5**	**5.8**	**8.3**	**8**	--	**23.2**	**4.6**
Barium	--	200 U	200 U	**132**	**130**	**281**	**314**	**110**	**107**	--	**93. J**	**1,370**
Beryllium	--	5.0 U	5.0 U	--	--	5.0 U	5.0 U	--	--	--	--	--
Cadmium	--	0.20 UJ	0.50 U	0.50 U	0.50 U	0.20 UJ	0.20 UJ	0.50 U	0.50 U	--	0.50 U	0.50 U
Calcium	--	**225,000**	**195,000**	--	--	**156,000**	**170,000**	--	--	--	--	--
Chromium	--	50 U	50. U	2.0 U	2.0 U	50 U	50 U	**0.24 B**	**0.27 B**	--	2.0 U	2.0 U
Cobalt	--	50 U	50. U	--	--	50 U	50 U	--	--	--	--	--
Copper	--	25 U	25. U	2.0 U	2.0 U	25 U	25 U	2.0 U	2.0 U	--	2.0 U	2.0 U
Cyanide, Total	--	--	5.0 U	--	--	--	--	--	--	--	--	--
Iron	**2,100**	**4,210**	**2,960 J**	21,300 J	21,300 J	16,400	18,600	14,600 J	14,100 J	--	**3,540 J**	**3,960 J**
Lead	--	3.0 U	3.0 U	1.0 U	1.0 U	3.0 U	3.0 U	1.0 U	1.0 U	--	1.0 U	1.0 U
Magnesium	--	**66,900**	**46,300**	--	--	**78,300**	**87,000**	--	--	--	--	--
Manganese	**600**	**485**	**680**	--	--	**617**	**686**	--	--	--	--	--
Mercury	--	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	--	0.20 U	0.20 U
Nickel	--	50 U	50. U	**5.5 J**	**5.6 J**	50 U	50 U	**5.6**	**5.4**	--	**3.5**	**2.8**
Potassium	--	5,000 U	5,000 U	--	--	**117,000**	**128,000**	--	--	--	--	--
Selenium	--	5.0 U	5.0 U	**2**	**1.4 B**	5.0 U	5.0 U	10.9	10.7	7.9	**1.3 B**	15.2
Silver	--	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	--	0.50 U	0.50 U
Sodium	--	**182,000**	**229,000**	--	--	**305,000**	**333,000**	--	--	--	--	--
Thallium	--	2.0 UJ	4.0 UJ	--	--	4.0 UJ*	4.0 UJ*	--	--	--	--	--
Vanadium	--	20 U	20. U	--	--	20 U	20 U	--	--	--	--	--
Zinc	--	20 U	20. U	10. U	10. U	20 U	20 U	10. U	10. U	--	10. U	**41.1**
Inorganics, Total												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	--	--	**38.5**	**38.3**	--	--	**8.3**	**7.9**	--	**22**	**4.1**
Barium	--	--	--	**131**	**129**	--	--	**111**	**109**	--	**90.4 J**	**1,340**
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	--	--	0.50 U	0.50 U	--	--	0.50 U	0.50 U	--	0.50 U	0.50 U
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	--	--	**0.27 B**	2.0 U	--	--	**0.28 B**	**0.26 B**	--	2.0 U	2.0 U
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	--	--	2.0 U	2.0 U	--	--	**0.35 B**	**0.72 B**	--	**0.33 B**	**0.37 B**
Cyanide, Total	--	5.0 U	--	--	--	5.0 U	5.0 U	--	--	--	--	--
Iron	**9,600**	--	**7,968**	21,500 J	21,400 J	--	--	14,600	14,000	--	**3,700 J**	**4,060**
Lead	--	--	--	1.0 U	1.0 U	--	--	1.0 U	1.0 U	--	**3.5**	1.0 U
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	**650**	--	**770**	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID: / Date Sampled: / Sample Type:	MW-129WT 5/1/2000 FS	MW-129WT 7/28/1995 FS	MW-129WT 6/12/1996 FS	MW-129WT 9/17/2004 FS	MW-129WT 9/17/2004 DUP	MW-144WT 7/29/1995 FS	MW-144WT 7/29/1995 DUP	MW-144WT 9/15/2004 FS	MW-144WT 9/15/2004 DUP	MW-144WT 12/21/2004 FS	MW01-118WT 9/16/2004 FS	MW01-119S1 9/16/2004 FS
Inorganics, Total (Cont'd.)												
Mercury	--	--	--	0.20 U	0.20 U	--	--	0.20 U	0.20 U	--	0.20 U	0.20 U
Nickel	--	--	--	**5.4 J**	**5.5 J**	--	--	**5.6**	**5.3**	--	**3.4**	**2.7**
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	--	--	**2.3**	**1.2 B**	--	--	11.8	10.1	7.8	**1.1 B**	13.8
Silver	--	--	--	0.50 UJ	0.50 UJ	--	--	0.50 UJ	0.50 UJ	--	0.50 UJ	0.50 UJ
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide (S)	2,000 U	--	**280**	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	**4.1 B**	**4.5 B**	--	--	10. U	10. U	--	**5.9 B**	**35.5**
Miscellaneous Parameters												
Ferrous Iron	**1,600**	--	**180**	--	--	--	--	--	--	--	--	--
Nitrate as N	--	--	80 U	--	--	--	--	--	--	--	--	--
Nitrite as N	--	--	70 U	--	--	--	--	--	--	--	--	--
Sulfate	**57,000**	--	**23,100**	--	--	--	--	--	--	--	--	--
Carbon Dioxide	**178,400**	--	**203,900**	--	--	--	--	--	--	--	--	--
Carbon Monoxide	400 U	--	400 U	--	--	--	--	--	--	--	--	--
Methane	**24.04**	--	200 U	--	--	--	--	--	--	--	--	--
Nitrogen	**15,400**	--	**16,000**	--	--	--	--	--	--	--	--	--
Oxygen	**720**	--	**2,700**	--	--	--	--	--	--	--	--	--
Hardness, Total	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	**37,000**	--	**18,100**	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-119S1	MW04-118S1	MW04-119WT	MW04-119WT	MW04-121S1	MW04-121S1	MW04-121S1	MW04-121WT	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123S1
Date Sampled:	12/22/2004	9/16/2004	9/16/2004	12/22/2004	9/16/2004	12/22/2004	12/22/2004	9/16/2004	12/21/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS
Inorganics, Dissolved												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	**3.2**	**4.2**	--	**6**	--	--	**2.9**	--	**2.5**	**10.5**	**6.5**
Barium	--	**741 J**	**290**	--	**332**	--	--	**60.7**	--	**731**	**303**	**129 J**
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	0.50 U	0.50 U	--	0.50 U	--	--	0.50 U	--	0.50 U	0.50 U	0.50 U
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	2.0 U	2.0 U	--	**0.31 B**	--	--	2.0 U	--	**0.37 B**	**0.62 B**	2.0 U
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	**0.39 B**	2.0 U	--	2.0 U	--	--	2.0 U	--	**0.63 B**	**0.66 B**	**0.34 B**
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	**6,600 J**	**15,400 J**	--	**8,900**	--	--	**1,850 J**	--	**14,200 J**	**4,990 J**	**5,760 J**
Lead	--	1.0 U	1.0 U	--	1.0 U	--	--	1.0 U	--	**0.29 B**	1.0 U	1.0 U
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--
Mercury	--	0.20 U	0.20 U	--	0.20 U	--	--	0.20 U	--	0.20 U	0.20 U	0.20 U
Nickel	--	**5.2**	**3.1**	--	**9.8**	--	--	**1.8 B**	--	**6**	**5**	**4.1**
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	**17.3**	**1.3 B**	**15.3**	**12.9**	**16.8**	**20.2**	**18**	**8.3**	**11**	2.0 U	2.0 U	**1.3 B**
Silver	--	0.50 U	0.50 U	--	0.50 U	--	--	0.50 U	--	0.50 U	0.50 U	0.50 U
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	**20**	**13.6**	--	**9.4 B**	--	--	10. U	--	**26.8**	**7.4 B**	**9.2 B**
Inorganics, Total												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	**3.7**	**4.5**	--	**6.3**	--	--	**3**	--	**2.5**	**11.6**	**6.5**
Barium	--	**920 J**	**307**	--	**353**	--	--	**60.3**	--	**771**	**315**	**132 J**
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	0.50 U	0.50 U	--	0.50 U	--	--	0.50 U	--	0.50 U	0.50 U	0.50 U
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	2.0 U	**1.5 B**	--	**0.57 B**	--	--	2.0 U	--	**0.76 B**	**0.96 B**	2.0 U
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	**0.75 B**	**3.9**	--	**0.48 B**	--	--	2.0 U	--	**0.73 B**	**1.5 B**	**0.59 B**
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	**8,880 J**	**16,700**	--	**9,510 J**	--	--	**2,040**	--	**15,300**	**5,360**	**5,780 J**
Lead	--	**0.24 B**	**2.8**	--	**0.30 B**	--	--	1.0 U	--	**1.3**	**0.49 B**	1.0 U
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW01-119S1	MW04-118S1	MW04-119WT	MW04-119WT	MW04-121S1	MW04-121S1	MW04-121S1	MW04-121WT	MW04-121WT	MW04-122S1	MW04-122WT	MW04-123S1
Date Sampled:	12/22/2004	9/16/2004	9/16/2004	12/22/2004	9/16/2004	12/22/2004	12/22/2004	9/16/2004	12/21/2004	9/16/2004	9/16/2004	9/16/2004
Sample Type:	FS	FS	FS	FS	FS	FS	DUP	FS	FS	FS	FS	FS
Inorganics, Total (Cont'd.)												
Mercury	--	0.20 U	0.20 U	--	0.20 U	--	--	0.20 U	--	0.20 U	0.20 U	0.20 U
Nickel	--	**6.8**	**4**	--	**10.3**	--	--	**1.8 B**	--	**6.5**	**5.1**	**4**
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	**15.9**	2.0 U	**15.5**	**10.6**	**17.1**	**16.2**	**17.4**	**8.2**	**8.8**	2.0 U	**0.95 B**	**2.3**
Silver	--	0.50 UJ	0.50 UJ	--	0.50 UJ	--	--	0.50 UJ	--	0.50 UJ	0.50 UJ	0.50 UJ
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide (S)	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	**28.4**	**13.6**	--	**13.8**	--	--	10. U	--	**26.4**	**8.5 B**	**9.2 B**
Miscellaneous Parameters												
Ferrous Iron	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate as N	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite as N	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Monoxide	--	--	--	--	--	--	--	--	--	--	--	--
Methane	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen	--	--	--	--	--	--	--	--	--	--	--	--
Oxygen	--	--	--	--	--	--	--	--	--	--	--	--
Hardness, Total	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-123WT	MW04-124S1	MW04-124S1	MW04-124WT	MW04-124WT	MW97-104S1	MW97-104S1	MW97-104WT	MW97-104WT	MW97-104WT	MW97-105S1	MW97-105S1
Date Sampled:	9/16/2004	9/15/2004	12/21/2004	9/15/2004	12/21/2004	12/10/1997	9/16/2004	12/10/1997	11/5/1998	9/16/2004	12/10/1997	11/5/1998
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved												
Aluminum	--	--	--	--	--	--	--	100 U	--	--	100 U	--
Antimony	--	--	--	--	--	--	--	5.0 U	--	--	5.0 U	--
Arsenic	**2.9**	**8**	--	**8.1 J**	--	5.0 U	**0.56 B**	5.0 U	--	**0.72 J**	5.0 U	--
Barium	**328 J**	**190 J**	--	**228**	--	**540**	**785 J**	200 U	--	**662**	**214**	--
Beryllium	--	--	--	--	--	--	--	5.0 U	--	--	5.0 U	--
Cadmium	0.50 U	0.50 U	--	0.50 U	--	0.50 U	0.50 U	0.50 U	--	0.50 U	0.50 U	--
Calcium	--	--	--	--	--	--	--	**67,500**	--	--	**148,000**	--
Chromium	2.0 U	2.0 U	--	2.0 U	--	50 U	2.0 U	50 U	--	2.0 U	50 U	--
Cobalt	--	--	--	--	--	--	--	50 U	--	--	50 U	--
Copper	**0.59 B**	**0.33 B**	--	2.0 UJ	--	25 U	**0.29 B**	25 U	--	2.0 UJ	25 U	--
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--
Iron	**6,540 J**	**7,530 J**	--	**13,300 J**	--	**3,500**	**7,480 J**	**640**	**1,200**	**1,950 J**	**11,500**	**9,000**
Lead	1.0 U	1.0 U	--	1.0 U	--	3.0 U	1.0 U	**3.1**	1.0 U	1.0 U	**5.6**	1.0 U
Magnesium	--	--	--	--	--	--	--	**11,600**	--	--	**25,600**	--
Manganese	--	--	--	--	--	--	--	**734**	--	--	**1,900**	--
Mercury	0.20 U	0.20 U	--	0.20 U	--	0.20 U	0.20 U	0.20 U	--	0.20 U	0.20 U	--
Nickel	**5.2**	**4.9**	--	**6.5**	--	50 U	**4.4**	50 U	--	**2.2**	50 U	--
Potassium	--	--	--	--	--	--	--	**6,430**	--	--	**7,260**	--
Selenium	**1.5 B**	**7.3**	**3.5**	**9.7**	**5.5**	**5.6**	**1.1 B**	5.0 U	--	**1.8 B**	5.0 U	--
Silver	0.50 U	0.50 U	--	0.50 U	--	0.50 U	0.50 U	0.50 U	--	0.50 U	0.50 U	--
Sodium	--	--	--	--	--	--	--	**32,100**	--	--	**71,700**	--
Thallium	--	--	--	--	--	--	--	2.0 U	--	--	2.0 U	--
Vanadium	--	--	--	--	--	--	--	20 U	--	--	20 U	--
Zinc	**14.6**	**14.1**	--	**7.2 J**	--	**21**	**21.6**	20 U	--	**17.8 J**	R	--
Inorganics, Total												
Aluminum	--	--	--	--	--	--	--	**16,400**	--	--	--	--
Antimony	--	--	--	--	--	--	--	5.0 U	--	--	--	--
Arsenic	**3.3**	**8.1**	--	**7.9 J**	--	--	**0.83 B**	**15.6 J**	--	**0.72 J**	--	--
Barium	**356 J**	**198 J**	--	**229**	--	--	**821 J**	200 U	--	**675**	--	--
Beryllium	--	--	--	--	--	--	--	5.0 U	--	--	--	--
Cadmium	0.50 U	0.50 U	--	0.50 U	--	--	0.50 U	**0.55**	--	0.50 U	--	--
Calcium	--	--	--	--	--	--	--	**98,100**	--	--	--	--
Chromium	2.0 U	2.0 U	--	**0.19 B**	--	--	2.0 U	**60. J**	--	2.0 U	--	--
Cobalt	--	--	--	--	--	--	--	50 U	--	--	--	--
Copper	**0.71 B**	2.0 U	--	**0.32 J**	--	--	**0.33 B**	**42**	--	2.0 UJ	--	--
Cyanide, Total	--	--	--	--	--	--	--	5.0 U	--	--	5.0 U	--
Iron	**8,000 J**	**7,830 J**	--	**12,900**	--	--	**8,140 J**	**29,900**	--	**2,120**	--	--
Lead	**0.39 B**	1.0 U	--	1.0 U	--	--	1.0 U	**54.1**	--	1.0 U	--	--
Magnesium	--	--	--	--	--	--	--	**24,600**	--	--	--	--
Manganese	--	--	--	--	--	--	--	**2,830**	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW04-123WT	MW04-124S1	MW04-124S1	MW04-124WT	MW04-124WT	MW97-104S1	MW97-104S1	MW97-104WT	MW97-104WT	MW97-104WT	MW97-105S1	MW97-105S1
Date Sampled:	9/16/2004	9/15/2004	12/21/2004	9/15/2004	12/21/2004	12/10/1997	9/16/2004	12/10/1997	11/5/1998	9/16/2004	12/10/1997	11/5/1998
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Total (Cont'd.)												
Mercury	0.20 U	0.20 U	--	0.20 U	--	--	0.20 U	0.20 U	--	0.20 U	--	--
Nickel	**5.6**	**5.1**	--	**6.5**	--	--	**4.6**	**51**	--	**2.3**	--	--
Potassium	--	--	--	--	--	--	--	**8,950**	--	--	--	--
Selenium	**0.90 B**	6.3	**3.3**	9.7	5.1	--	**2.1**	5.0 U	--	**2.3**	--	--
Silver	0.50 UJ	0.50 UJ	--	0.50 UJ	--	--	0.50 UJ	0.50 U	--	0.50 UJ	--	--
Sodium	--	--	--	--	--	--	--	**34,900**	--	--	--	--
Sulfide (S)	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	2.0 UJ	--	--	--	--
Vanadium	--	--	--	--	--	--	--	31	--	--	--	--
Zinc	**10.6**	**7.7 B**	--	**16.7 J**	--	--	**19.4**	**115**	--	**16.9 J**	--	--
Miscellaneous Parameters												
Ferrous Iron	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate as N	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite as N	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Monoxide	--	--	--	--	--	--	--	--	--	--	--	--
Methane	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen	--	--	--	--	--	--	--	--	--	--	--	--
Oxygen	--	--	--	--	--	--	--	--	--	--	--	--
Hardness, Total	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW97-105S1	MW97-105S1	MW97-105WT	MW97-105WT	MW97-105WT	MW97-105WT	MW97-105WT	MW98-108S1	MW98-108S1	MW98-108S1	MW98-109S1	MW98-109S1
Date Sampled:	9/15/2004	12/21/2004	12/10/1997	12/10/1997	11/5/1998	9/15/2004	12/21/2004	9/24/1998	11/5/1998	9/15/2004	11/5/1998	11/5/1998
Sample Type:	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS	FS	DUP
Inorganics, Dissolved												
Aluminum	--	--	100 U	--	--	--	--	**107**	--	--	--	--
Antimony	--	--	5.0 U	--	--	--	--	5.0 U	--	--	--	--
Arsenic	**4.5**	--	**8.2**	**8.6**	--	**9.3**	--	**1.6**	5.0 U	**0.99 B**	5.0 U	5.0 U
Barium	**256**	--	**870**	**880**	--	**599**	--	**222**	**200**	**229 J**	**400**	**400**
Beryllium	--	--	5.0 U	--	--	--	--	5.0 U	--	--	--	--
Cadmium	0.50 U	--	0.50 U	0.50 U	--	0.50 U	--	0.20 U	0.50 U	0.50 U	0.50 U	0.50 U
Calcium	--	--	**141,000**	--	--	--	--	**118,000**	--	--	--	--
Chromium	**0.60 B**	--	50 U	50 U	--	**0.71 B**	--	50 U	50 U	2.0 U	50 U	50 U
Cobalt	--	--	50 U	--	--	--	--	50 U	--	--	--	--
Copper	**0.32 BJ**	--	25 U	25 U	--	2.0 U	--	25 U	25 U	2.0 U	25 U	25 U
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--
Iron	**7,350 J**	--	**10,700**	**26,000**	**11,000**	**16,200 J**	--	**6,100**	**4,600**	**9,180 J**	**3,800**	**3,800**
Lead	1.0 U	--	3.0 U	3.0 U	--	1.0 U	--	3.0 U	1.0 U	1.0 U	1.0 U	**1**
Magnesium	--	--	**23,600**	--	--	--	--	**43,500**	--	--	--	--
Manganese	--	--	**1,800**	--	--	--	--	**348**	--	--	--	--
Mercury	0.20 U	--	0.20 U	0.20 U	--	0.20 U	--	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	**11.8 J**	--	50 U	50 U	--	**11.6 J**	--	50 U	50 U	**5**	50 U	50 U
Potassium	--	--	**6,550**	--	--	--	--	5,000 U	--	--	--	--
Selenium	**13.6**	**9.8**	5.0 U	**28**	5.0 U	**13.7**	**7**	5.0 U	5.0 U	**1.8 B**	5.0 U	5.0 U
Silver	0.50 U	--	0.50 U	0.50 U	--	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Sodium	--	--	**65,300**	--	--	--	--	**257,000**	--	--	--	--
Thallium	--	--	2.0 U	--	--	--	--	2.0 UJ	--	--	--	--
Vanadium	--	--	20 U	--	--	--	--	20 U	--	--	--	--
Zinc	**6.1 B**	--	R	**20**	--	**14.5**	--	20 U	20 U	10. U	20 U	20 U
Inorganics, Total												
Aluminum	--	--	**19,700**	--	--	--	--	--	--	--	--	--
Antimony	--	--	5.0 U	--	--	--	--	--	--	--	--	--
Arsenic	**4.5**	--	**24. J**	--	--	**8.8**	--	--	--	**0.98 B**	--	--
Barium	**264**	--	**401**	--	--	**559**	--	--	--	**220 J**	--	--
Beryllium	--	--	5.0 U	--	--	--	--	--	--	--	--	--
Cadmium	0.50 U	--	**2.3**	--	--	0.50 U	--	--	--	0.50 U	--	--
Calcium	--	--	**309,000**	--	--	--	--	--	--	--	--	--
Chromium	**0.89 B**	--	**117 J**	--	--	**0.90 B**	--	--	--	2.0 U	--	--
Cobalt	--	--	50 U	--	--	--	--	--	--	--	--	--
Copper	**0.48 BJ**	--	**39.6**	--	--	**1.1 BJ**	--	--	--	2.0 U	--	--
Cyanide, Total	--	--	5.0 U	--	--	--	--	5.0 U	--	--	--	--
Iron	**7,610 J**	--	**54,600**	--	--	**16,300 J**	--	--	--	**10,100 J**	--	--
Lead	1.0 U	--	**27.8**	--	--	**1**	--	--	--	1.0 U	--	--
Magnesium	--	--	**94,200**	--	--	--	--	--	--	--	--	--
Manganese	--	--	**3,740**	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW97-105S1	MW97-105S1	MW97-105WT	MW97-105WT	MW97-105WT	MW97-105WT	MW97-105WT	MW98-108S1	MW98-108S1	MW98-108S1	MW98-109S1	MW98-109S1
Date Sampled:	9/15/2004	12/21/2004	12/10/1997	12/10/1997	11/5/1998	9/15/2004	12/21/2004	9/24/1998	11/5/1998	9/15/2004	11/5/1998	11/5/1998
Sample Type:	FS	FS	FS	DUP	FS	FS	FS	FS	FS	FS	FS	DUP
Inorganics, Total (Cont'd.)												
Mercury	0.20 U	--	0.20 U	--	--	0.20 U	--	--	--	0.20 U	--	--
Nickel	**12.1 J**	--	**96.8**	--	--	**11.7 J**	--	--	--	**4.9**	--	--
Potassium	--	--	**9,120**	--	--	--	--	--	--	--	--	--
Selenium	**13.6**	**9.4**	5.0 U	--	--	**11.6**	**8**	--	--	**1.5 B**	--	--
Silver	0.50 UJ	--	0.50 U	--	--	0.50 UJ	--	--	--	0.50 UJ	--	--
Sodium	--	--	**67,100**	--	--	--	--	--	--	--	--	--
Sulfide (S)	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	2.0 UJ	--	--	--	--	--	--	--	--	--
Vanadium	--	--	**45.2**	--	--	--	--	--	--	--	--	--
Zinc	**12.8**	--	R	--	--	**26.3**	--	--	--	10. U	--	--
Miscellaneous Parameters												
Ferrous Iron	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate as N	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite as N	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Monoxide	--	--	--	--	--	--	--	--	--	--	--	--
Methane	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen	--	--	--	--	--	--	--	--	--	--	--	--
Oxygen	--	--	--	--	--	--	--	--	--	--	--	--
Hardness, Total	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-109S1	MW98-109S1	MW98-110S1	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111S1	MW98-111S1	MW98-111WT	SB97-110	SB97-111	SB97-111
Date Sampled:	5/22/2000	9/15/2004	11/5/1998	9/17/2004	9/17/2004	11/6/1998	5/20/2000	9/17/2004	9/17/2004	11/17/1997	11/17/1997	11/18/1997
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved												
Aluminum	--	--	--	--	--	--	--	--	--	R	100 U	100 U
Antimony	--	--	--	--	--	--	--	--	--	5.0 U	5.0 U	5.0 U
Arsenic	10 U	**1.3 B**	5.0 U	**3.6**	**2.8**	5.0 U	**4.9 B**	**0.89 B**	**1.3 B**	1.0 U	**6.3**	**1.5**
Barium	**339**	**325 J**	**400**	**266**	**291**	**2,800**	**4,820**	**4,920**	**686**	200 U	**308**	**266**
Beryllium	--	--	--	--	--	--	--	--	--	5.0 U	5.0 U	5.0 U
Cadmium	1.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	**0.97 B**	0.50 U	0.50 U	0.40 U	0.20 UJ	0.20 UJ
Calcium	--	--	--	--	--	--	--	--	--	**62,300**	**152,000**	**150,000**
Chromium	**14.9**	2.0 U	50 U	2.0 U	2.0 U	50 U	5.0 U	**0.75 B**	**0.18 B**	50 U	50 U	50 U
Cobalt	--	--	--	--	--	--	--	--	--	50 U	50 U	50 U
Copper	25 U	2.0 U	25 U	2.0 U	2.0 U	20 U	25 U	2.0 U	2.0 U	25 U	25 U	25 U
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--
Iron	**4,840 J**	**5,050 J**	**4,600**	**5,170 J**	**4,030 J**	**34,000**	**57,500 J**	**39,400 J**	**761 J**	**26,000**	**24,600**	**16,600**
Lead	3.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	3.0 U	3.0 U	3.0 U
Magnesium	--	--	--	--	--	--	--	--	--	**16,300**	**47,500**	**45,400**
Manganese	--	--	--	--	--	--	--	--	--	**879**	**548**	**393**
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 UJ	0.20 UJ
Nickel	**19.4 B**	**3.7**	50 U	**3.6 J**	**4.3 J**	50 U	40 U	**3.9 J**	**4.3 J**	50 U	50 U	50 U
Potassium	--	--	--	--	--	--	--	--	--	**11,000**	5,000 U	5,000 U
Selenium	5.0 U	**1.0 B**	5.0 U	**4.8**	**1.7 B**	**5**	**4.7 B**	2.0 U	**0.90 B**	5.0 U	5.0 U	5.0 U
Silver	5.0 U	0.50 U	0.50 U	0.50 U	0.50 U	0.80 MU	5.0 U	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U
Sodium	--	--	--	--	--	--	--	--	--	**107,000**	**92,700**	**84,900**
Thallium	--	--	--	--	--	--	--	--	--	4.0 UJ*	2.0 UJ	2.0 UJ
Vanadium	--	--	--	--	--	--	--	--	--	20 U	20 U	20 U
Zinc	20 U	**5.7 B**	20 U	**5.0 B**	**8.6 B**	20 U	20 U	**135**	**17.6**	R	20 U	R
Inorganics, Total												
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	--	**1.6 B**	--	**3.6**	**2.8**	--	--	**1.6 B**	**3.4**	--	--	--
Barium	--	**321 J**	--	**282**	**272**	--	--	**4,740**	**709**	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	--	0.50 U	--	0.50 U	**0.080 B**	--	--	0.50 U	0.50 U	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--
Chromium	--	2.0 U	--	2.0 U	**0.84 B**	--	--	**0.87 B**	**1.3 B**	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--
Copper	--	2.0 U	--	2.0 U	2.0 U	--	--	2.0 U	**4.0 J**	--	--	--
Cyanide, Total	--	--	--	--	--	--	--	--	--	5.0 U	**5.4**	5.0 U
Iron	--	**5,010 J**	--	**5,520 J**	**3,900 J**	--	--	**38,000 J**	**1,180 J**	--	--	--
Lead	--	1.0 U	--	1.0 U	1.0 U	--	--	1.0 U	**0.59 B**	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	MW98-109S1	MW98-109S1	MW98-110S1	MW98-110S1	MW98-110WT	MW98-111S1	MW98-111S1	MW98-111S1	MW98-111WT	SB97-110	SB97-111	SB97-111
Date Sampled:	5/22/2000	9/15/2004	11/5/1998	9/17/2004	9/17/2004	11/6/1998	5/20/2000	9/17/2004	9/17/2004	11/17/1997	11/17/1997	11/18/1997
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Total (Cont'd.)												
Mercury	--	0.20 U	--	0.20 U	0.20 U	--	--	0.20 U	0.20 U	--	--	--
Nickel	--	**3.4**	--	**4.0 J**	**4.2 J**	--	--	**3.4 J**	**4.5 J**	--	--	--
Potassium	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	--	**1.4 B**	--	**4.8**	**2.1**	--	--	**1.4 B**	**1.9 B**	--	--	--
Silver	--	0.50 UJ	--	0.50 UJ	0.50 UJ	--	--	0.50 UJ	0.50 UJ	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--
Sulfide (S)	--	--	--	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	**5.5 B**	--	**6.0 B**	**14**	--	--	**116**	**17.6**	--	--	--
Miscellaneous Parameters												
Ferrous Iron	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate as N	--	--	--	--	--	--	--	--	--	--	--	--
Nitrite as N	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--	--	--	--
Carbon Monoxide	--	--	--	--	--	--	--	--	--	--	--	--
Methane	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen	--	--	--	--	--	--	--	--	--	--	--	--
Oxygen	--	--	--	--	--	--	--	--	--	--	--	--
Hardness, Total	--	--	--	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	SB98-119	TW98-108WT	TW98-108WT	TW98-109WT	TW98-109WT	TW98-109WT	TW98-110WT	TW98-111WT	TW98-111WT
Date Sampled:	9/23/1998	11/5/1998	9/15/2004	11/5/1998	5/22/2000	9/15/2004	11/5/1998	11/6/1998	5/20/2000
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Dissolved									
Aluminum	**116**	--	--	--	--	--	--	--	--
Antimony	5.0 U	--	--	--	--	--	--	--	--
Arsenic	1.0 UJ	**6**	**3.3**	5.0 U	10 U	**1.3 B**	**5**	5.0 U	10 U
Barium	**283**	**600**	**489 J**	**300**	**439**	**467 J**	200 U	1,400	**539**
Beryllium	5.0 U	--	--	--	--	--	--	--	--
Cadmium	0.20 UJ	0.50 U	0.50 U	0.50 U	1.0 U	0.50 U	0.50 U	0.50 U	1.0 U
Calcium	**273,000**	--	--	--	--	--	--	--	--
Chromium	50 U	50 U	2.0 U	50 U	**6.1**	**0.31 B**	50 U	50 U	**2.3 B**
Cobalt	50 U	--	--	--	--	--	--	--	--
Copper	25 U	25 U	2.0 U	25 U	**15.2 B**	2.0 U	25 U	25 U	25 U
Cyanide, Total	--	--	--	--	--	--	--	--	--
Iron	**3,580**	**5,000**	**2,660 J**	**1,200**	**2,810 J**	**1,420 J**	**1,300**	**1,500**	**1,580 J**
Lead	3.0 U	1.0 U	1.0 U	1.0 U	3.0 U	1.0 U	1.0 U	1.0 U	3.0 U
Magnesium	**96,200**	--	--	--	--	--	--	--	--
Manganese	**180**	--	--	--	--	--	--	--	--
Mercury	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	50 U	50 U	**1.4 B**	50 U	40 U	**2.4**	50 U	50 U	**16.5 B**
Potassium	**7,780**	--	--	--	--	--	--	--	--
Selenium	5.0 U	5.0 U	**1.2 B**	5.0 U	5.0 U	**2.9**	5.0 U	5.0 U	5.0 U
Silver	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U	0.50 U	0.50 U	0.50 U	5.0 U
Sodium	932,000	--	--	--	--	--	--	--	--
Thallium	2.0 UJ	--	--	--	--	--	--	--	--
Vanadium	20 U	--	--	--	--	--	--	--	--
Zinc	20 U	20 U	**18.2**	20 U	20 U	**13.8**	20 U	20 U	20 U
Inorganics, Total									
Aluminum	--	--	--	--	--	--	--	--	--
Antimony	--	--	--	--	--	--	--	--	--
Arsenic	--	--	**3.4**	--	--	**1.5 B**	--	--	--
Barium	--	--	**511 J**	--	--	**469 J**	--	--	--
Beryllium	--	--	--	--	--	--	--	--	--
Cadmium	--	--	0.50 U	--	--	0.50 U	--	--	--
Calcium	--	--	--	--	--	--	--	--	--
Chromium	--	--	2.0 U	--	--	**0.62 B**	--	--	--
Cobalt	--	--	--	--	--	--	--	--	--
Copper	--	--	2.0 U	--	--	2.0 U	--	--	--
Cyanide, Total	5.0 U	--	--	--	--	--	--	--	--
Iron	--	--	**2,710 J**	--	--	**1,530 J**	--	--	--
Lead	--	--	1.0 U	--	--	1.0 U	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

TABLE C-4

HISTORICAL GROUNDWATER SAMPLING ANALYTICAL RESULTS
INORGANIC CONSTITUENTS

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

Location ID:	SB98-119	TW98-108WT	TW98-108WT	TW98-109WT	TW98-109WT	TW98-109WT	TW98-110WT	TW98-111WT	TW98-111WT
Date Sampled:	9/23/1998	11/5/1998	9/15/2004	11/5/1998	5/22/2000	9/15/2004	11/5/1998	11/6/1998	5/20/2000
Sample Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS
Inorganics, Total (Cont'd.)									
Mercury	--	--	0.20 U	--	--	0.20 U	--	--	--
Nickel	--	--	**1.4 B**	--	--	**2.3**	--	--	--
Potassium	--	--	--	--	--	--	--	--	--
Selenium	--	--	**1.3 B**	--	--	**3.3**	--	--	--
Silver	--	--	0.50 UJ	--	--	0.50 UJ	--	--	--
Sodium	--	--	--	--	--	--	--	--	--
Sulfide (S)	--	--	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--	--	--
Vanadium	--	--	--	--	--	--	--	--	--
Zinc	--	--	**13.4**	--	--	**12.3**	--	--	--
Miscellaneous Parameters									
Ferrous Iron	--	--	--	--	--	--	--	--	--
Nitrate as N	--	--	--	--	--	--	--	--	--
Nitrite as N	--	--	--	--	--	--	--	--	--
Sulfate	--	--	--	--	--	--	--	--	--
Carbon Dioxide	--	--	--	--	--	--	--	--	--
Carbon Monoxide	--	--	--	--	--	--	--	--	--
Methane	--	--	--	--	--	--	--	--	--
Nitrogen	--	--	--	--	--	--	--	--	--
Oxygen	--	--	--	--	--	--	--	--	--
Hardness, Total	--	--	--	--	--	--	--	--	--
pH	--	--	--	--	--	--	--	--	--
Total Organic Carbon	--	--	--	--	--	--	--	--	--

See Generic Notes Pages.

GENERIC NOTES

REALM, INC.
PENINSULA AREA PROPERTY
SAGINAW, MICHIGAN

General Notes:

All concentrations in micrograms per liter (ug/L); equivalent to parts per billion (ppb), unless otherwise noted.
Detections are shown in bold, and concentrations above the relevant criteria are shaded.
-- = Sample was not analyzed for the listed constituent.
REALM, INC. = Remediation and Liability Management Company, Inc.

Generic MDEQ Criteria Values, updated December 2004:
- IDW = Industrial Drinking Water Criteria.
- GSI = Groundwater Surface Water Interface Criteria.
- IGVIA = Industrial & Commercial II, III, & IV Groundwater Volatilization to Indoor Air Inhalation Criteria.
- GCC = Groundwater Contact Criteria.
- FESL = Flammability and Explosivity Screening Levels.
- FAV = Rule 57 Surface Water Final Acute Value.
- HNDV = Rule 57 Surface Water Human Non-Drinking Water Value
- WV = Rule 57 Surface Water Wildlife Value
- FCV = Rule 57 Surface Water Final Chronic Value
- AMV = Rule 57 Surface Water Aquatic Maximum Value

Location ID:
- MW = Permanent monitoring wells (Note: 97 indicates the well was installed in 1997, 04 indicates the well was installed in 1998).
- TW = Temporary monitoring wells (Note: 97 indicates the well was installed in 1997, 98 indicates the well was installed in 1998).
- WT = Water table monitoring wells.
- S1 = Well screened at base of sand unit.
- SW = Surface water sampling location.

Sample Type:
- FS = Primary field sample.
- DUP = Duplicate field sample.

Data Qualifiers:

;VOCs[1] = Samples collected during the May 2000 sampling event had select SVOC compounds analyzed under the VOC scan (8260).
- B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect. (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
- D = Concentration is based on a diluted sample analysis.
- E = The compound was quantitated above the calibration range.
- J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
- M = Matrix interference.
- ND = Not detected.
- U = The compound/constituent was analyzed for but not detected. The associated value is the compound/constituent quantitation limit.
- UJ = The compound/constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
- # = This value represents a probable combination of 3-methylphenol and 4-methylphenol.

MDEQ Criteria Qualifiers:

{A} Criterion is the state of Michigan drinking water standard established pursuant to Section 5 of 1976 PA 399, MCL 325.1005.

{B} Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels may be less than criteria for some inorganic compounds.

{C} Value presented is a screening level based on the chemical-specific generic soil saturation concentration (C_{sat}) since the calculated risk-based criterion is greater than Csat. Concentrations greater than Csat are acceptable cleanup criteria for this pathway where a site-specific demonstration indicates that free-phase material containing a hazardous substance is not present.

{D} Calculated criterion exceeds 100 percent, hence it is reduced to 100 percent or 1.0E+9 parts per billion (ppb).

{E} Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). A notice of aesthetic impact may be employed as an institutional control mechanism if groundwater concentrations exceed the aesthetic drinking water criterion, but do not exceed the applicable health-based drinking water value provided in the following table:

Hazardous Substance	CAS #	Residential Health-Based DWC	Industrial-Commercial Health-Based DWC
Aluminum	7429905	300	4,100
tertiary Amyl methyl ether	994058	910	2,600
Copper	7440508	1,400	4,000
Diethyl ether	60297	3,700	10,000
Ethylbenzene	100414	700	700
Iron	7439896	2,000	5,600
Manganese	7439965	860	2,500
Methyl-tert-butyl ether (MTBE)	1634044	240	690
Toluene	108883	1,000	1,000
1,2,4-Trimethylbenzene	95636	1,000	2,900
1,3,5-Trimethylbenzene	108678	1,000	2,900
Xylenes	1330207	10,000	10,000

{F} Criterion is based on adverse impacts to plant life and phytotoxicity.

{G} Groundwater surface water interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water. The final chronic value (FCV) for the protection of aquatic life shall be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg CaCO3/L, use 400 mg CaCO3/L for the FCV calculation. The FCV formula provides values in units of ug/L or ppb. The generic GSI criterion is the lesser of the calculated FCV, the wildlife value (WV), and the surface water human non-drinking water value (HNDV). The soil GSI protection criteria for these hazardous substances are the greater of the 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

MDEQ Criteria Qualifiers (Cont'd.):

Hazardous Substance	FCV Formula ug/L	FCV Conversion Factor (CF)	WV ug/L	HNDV ug/L
Acetate	EXP(0.2732*(pH) + 7.0362)	NA	NA	1.30E+06
Barium [X]	EXP(1.0629*(LnH)+1.1869)	NA	NA	1.60E+05
Beryllium	EXP(2.5279*(LnH)-10.7689)	NA	NA	1,200
Cadmium [X]	(EXP(0.7852*(LnH)-2.715))*CF	1.101672-((LnH)*(0.041838))	NA	130
Chromium (III) [X]	(EXP(0.819*(LnH)+0.6848))*CF	0.86	NA	9,400
Copper	(EXP(0.8545*(LnH)-1.702)) *CF	0.96	NA	64,000
Lead [X]	(EXP(1.273*(LnH)-3.296))*CF	1.46203-((LnH)*(0.14571))	NA	190
Manganese	EXP(0.8784*(LnH)+3.5199)	NA	NA	59,000
Nickel	(EXP(0.846*(LnH)+0.0584))*CF	0.997	NA	2.10E+05
Pentachlorophenol	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	22,000

Where,

EXP(x) = The base of the natural logarithm raised to power x (e^x).
LnH = The natural logarithm of water hardness in mg $CaCO_3$/L.
* = The multiplication symbol.
[X] = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote (X) for further guidance.

A spreadsheet that may be used to calculate GSI and GSI protection criteria for (G)-footnoted hazardous substances is available on the Department of Environmental Quality (DEQ) internet web site.

{H} Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. If both Cr III and Cr VI are present in groundwater, the total concentration of both cannot exceed the drinking water criterion of 100 ug/L. If analytical data are provided for total chromium only, they shall be compared to the cleanup criteria for Cr VI. Cr III soil cleanup criterion for protection of drinking water can only be used at sites where groundwater is prevented from being used as a public water supply, currently and in the future, through an approved land or resource use restriction.

{I} Hazardous substance may exhibit the characteristic of ignitability as defined in 40 C.F.R. §261.21 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, Remediation and Redevelopment Division (RRD), 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{J} Hazardous substance may be present in several isomer forms. Isomer-specific concentrations shall be added together for comparison to criteria.

{K} Hazardous substance may be flammable or explosive, or both.

{L} Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10) of the NREPA, and are not calculated using the algorithms and assumptions specified in pathway-specific rules. The generic residential drinking water criterion of 4 ug/L is linked to the generic residential soil direct contact criterion of 400 mg/kg. A higher concentration in the drinking water, up to the state action level of 15 ug/L, may be allowed as a site-specific remedy and still allow for drinking water use, under Section 20120a(2) of the NREPA if soil concentrations are appropriately lower than 400 mg/kg. If a site-specific criterion is approved based on this subdivision, a notice shall be filed on the deed for all property where the groundwater concentrations will exceed 4 ug/L to provide notice of the potential for unacceptable risk if soil or groundwater concentrations increase. Acceptable combinations of site-specific soil and drinking water concentrations are presented in the following table:

Drinking Water Concentration	Soil Concentration
5	386-395
6	376-385
7	376-385
8	366-375
9	356-365
10	346-355
11	336-345
12	336-345
13	326-335
14	316-325
15	306-315

{M} Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

{N} The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater that is used as a source of drinking water shall not, when added together, exceed the nitrate drinking water criterion of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen shall not, when added together, exceed the nitrate drinking water protection criterion of 2.0E+5 ug/kg.

{O} The concentration of all polychlorinated and polybrominated dibenzodioxin and dibenzofuran isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, shall be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic cleanup criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin are not calculated according to the algorithms presented in R 299.5714 to R 299.5726. The generic cleanup criteria are being held at the values that the DEQ has used since August 1998, in recognition of the fact that national efforts to reassess risks posed by dioxin are not yet complete. Until these studies are complete, it is premature to select a revised slope factor and/or reference dose for calculation of generic cleanup criteria.

{P} Amenable cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with all groundwater criteria. Total cyanide methods or method OIA-1677 shall be used to quantify cyanide concentrations for compliance with soil criteria. Industrial-commercial direct contact criteria may not be protective of the potential for release of hydrogen cyanide gas. Additional land or resource use restrictions may be necessary to protect for the acute inhalation concerns associated with hydrogen cyanide gas.

{Q} Criteria for carcinogenic polycyclic aromatic hydrocarbons were developed using relative potential potencies to benzo(a)pyrene.

{R} Hazardous substance may exhibit the characteristic of reactivity as defined in 40 C.F.R. §261.23 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{S} Criterion defaults to the hazardous substance-specific water solubility limit.

{T} Refer to the federal Toxic Substances Control Act (TSCA), 40 C.F.R. §761, Subpart D and 40 C.F.R. §761, Subpart G, to determine the applicability of TSCA cleanup standards. Subpart D and Subpart G of 40 C.F.R. §761 (July 1, 2001) are adopted by reference in these rules and are available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulations may be purchased, at a cost as of the time of adoption of these rules of $55, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401, or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost. Alternatives to compliance with the TSCA standards listed below are possible under 40 C.F.R. §761 Subpart D. New releases may be subject to the standards identified in 40 C.F.R. §761, Subpart G. Use Part 201 soil direct contact cleanup criteria in the following table if TSCA standards are not applicable.

MDEQ Criteria Qualifiers (Cont'd.):

Land Use Category	TSCA, Subpart D Cleanup Standards	Part 201 Soil Direct Contact Cleanup Criteria
Residential & Commercial I	1,000 ppb, or 10,000 ppb if capped	4,000 ppb
Industrial & Commercial II	1,000 ppb, or 10,000 ppb if capped	16,000 ppb
Commercial III	1,000 ppb, or 10,000 ppb if capped	33,000 ppb
Commercial IV	1,000 ppb, or 10,000 ppb if capped	22,000 ppb

{U} Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 C.F.R. §261.22 (revised as of July 1, 2001), which is adopted by reference in these rules and is available for inspection at the DEQ, 525 West Allegan Street, Lansing, Michigan. Copies of the regulation may be purchased, at a cost as of the time of adoption of these rules of $45, from the Superintendent of Documents, Government Printing Office, Washington, DC 20401 (stock number 869-044-00155-1), or from the DEQ, RRD, 525 West Allegan Street, Lansing, Michigan 48933, at cost.

{V} Criterion is the aesthetic drinking water value as required by Section 20120(a)(5) of the NREPA. Concentrations up to 200 ug/L may be acceptable, and still allow for drinking water use, as part of a site-specific cleanup under Section 20120a(2) of the NREPA.

{W} Concentrations of trihalomethanes in groundwater shall be added together to determine compliance with the Michigan drinking water standard of 80 ug/L. Concentrations of trihalomethanes in soil shall be added together to determine compliance with the drinking water protection criterion of 1,600 ug/kg.

{X} The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source. For a groundwater discharge to the Great Lakes and their connecting waters or discharge in close proximity to a water supply intake in inland surface waters, the generic GSI criterion shall be the surface water human drinking water value (HDV) listed in the table in this footnote, except for those HDV indicated with an asterisk. For HDV with an asterisk, the generic GSI criterion shall be the lowest of the HDV, the WV, and the calculated FCV. See formulas in footnote (G). Soil protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria based on the HDV shall be as listed in the table in this footnote, except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk shall be the greater of 20 times the GSI criterion or the GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria for HDV (ug/kg)
Acrylonitrile	107131	2.0 (M); 0.87	100 (M); 17
Alachlor	15972608	3.5	91
Antimony	7440360	2	1,400
Arsenic	7440382	50	23,000
Atrazine	1912249	4.3	86
Barium	7440393	1,900*	*
Benzene	71432	12	240
bis(2-Chloroethyl)ether	111444	1 (M); 0.79	100 (M); 20
Butyl benzyl phthalate	85687	6.9	13,000
Cadmium	7440439	2.5*	*
Carbon tetrachloride	56235	5.6	110
Chloride	16887006	50,000	1.00E+06
Chloroform	67663	77	1,500
Chromium (III)	16065831	120*	*
Cyanazine	21725462	2 (M); 0.93	200 (M); 40
3,3'-Dichlorobenzidine	91941	0.3 (M); 0.14	2,000 (M); 7.7
1,2-Dichloroethane	107062	6	120
1,1-Dichloroethylene	75354	24	480
1,2-Dichloropropane	78875	9.1	180
N,N-Dimethylacetamide	127195	700	14,000
1,4-Dioxane	123911	34	680
Ethylene dibromide	106934	0.05 (M); 0.006	20 (M); 1.0
Ethylene glycol	107211	56,000	1.10E+06
Heptachlor	76448	0.01 (M); 0.0017	NLL
beta-Hexachlorocyclohexane	319857	0.024	20 (M)
Hexachloroethane	67721	5.3	310
Isophorone	78591	310	6,200
Isopropyl alcohol	67630	28,000	5.60E+05
Lead	7439921	14*	*
Manganese	7439965	3600	72,000
Methyl-tert-butyl ether (MTBE)	1634044	100	2,000
Methylene chloride	75092	47	940
Mirex	2385855	0.02 (M); 1.6E-5	NLL
Molybdenum	7439987	120	2,400
Nitrobenzene	98953	4.7	330 (M); 94
Pentachlorophenol	87865	1.8*	*
1,2,4,5-Tetrachlorobenzene	95943	2.8	3,300
1,1,1,2-Tetrachloroethane	630206	19	380
1,1,2,2-Tetrachloroethane	79345	3.2	64
Tetrachloroethylene	127184	11	220
Tetrahydrofuran	109999	350	7,000
Thallium	7440280	2.0 (M); 1.2	2,300
1,1,2-Trichloroethane	79005	12	240
Trichloroethylene	79016	29	580

{Y} Source size modifiers shown in the following table shall be used to determine soil inhalation criteria for ambient air when the source size is not one-half acre. The modifier shall be multiplied by the generic soil inhalation criteria shown in the table of generic cleanup criteria to determine the applicable criterion.

MDEQ Criteria Qualifiers (Cont'd.):

Source Size sq. feet or acres	Modifier
400 sq feet	3.17
1000 sq feet	2.2
2000 sq feet	1.76
1/4 acre	1.15
1/2 acre	1
1 acre	0.87
2 acre	0.77
5 acre	0.66
10 acre	0.6
32 acre	0.5
100 acre	0.43

{Z} Mercury is typically measured as total mercury. The generic cleanup criteria, however, are based on data for different species of mercury. Specifically, data for elemental mercury, chemical abstract service (CAS) number 7439976, serve as the basis for the soil volatilization to indoor air criteria, groundwater volatilization to indoor air, and soil inhalation criteria. Data for methyl mercury, CAS number 22967926, serve as the basis for the GSI criterion; and data for mercuric chloride, CAS number 7487947, serve as the basis for the drinking water, groundwater contact, soil direct contact, and the groundwater protection criteria. Comparison to criteria shall be based on species-specific analytical data only if sufficient facility characterization has been conducted to rule out the presence of other species of mercury.

{AA} Comparison to these criteria may take into account an evaluation of whether the hazardous substances are adsorbed to particulates rather than dissolved in water and whether filtered groundwater samples were used to evaluate groundwater.

{BB} The state drinking water standard for asbestos is in units of fibers per milliliter of water (f/mL) longer than 10 millimicrons. Soil concentrations of asbestos are determined by polarized light microscopy.

{CC} Groundwater: The generic GSI criteria are based on the toxicity of unionized ammonia (NH_3); the criteria are 29 ug/L and 53 ug/L for cold water and warm water surface water, respectively. As a result, the GSI criterion shall be compared to the percent of the total ammonia concentration in the groundwater that will become NH_3 in the surface water. This percent NH_3 is a function of the pH and temperature of the receiving surface water and can be estimated using the following table, taken from Emerson, et al., (Journal of the Fisheries Research Board of Canada, Volume 32(12):2382, 1975).

Percent NH_3 in Aqueous Ammonia Solutions for 0-30 °C and pH 6-10

Temp (°F)	Temp (°C)	pH 6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
32.0	0	0.00827	0.0261	0.0826	0.261	0.820	2.55	7.64	20.7	45.3
33.8	1	0.00899	0.0284	0.0898	0.284	0.891	2.77	8.25	22.1	47.3
35.6	2	0.00977	0.0309	0.0977	0.308	0.968	3.00	8.90	23.6	49.4
37.4	3	0.0106	0.0336	0.106	0.335	1.05	3.25	9.60	25.1	51.5
39.2	4	0.0115	0.0364	0.115	0.363	1.14	3.52	10.3	26.7	53.5
41.0	5	0.0125	0.0395	0.125	0.394	1.23	3.80	11.1	28.3	55.6
42.8	6	0.0136	0.0429	0.135	0.427	1.34	4.11	11.9	30.0	57.6
44.6	7	0.0147	0.0464	0.147	0.462	1.45	4.44	12.8	31.7	59.5
46.4	8	0.0159	0.0503	0.159	0.501	1.57	4.79	13.7	33.5	61.4
48.2	9	0.0172	0.0544	0.172	0.542	1.69	5.16	14.7	35.3	63.3
50.0	10	0.0186	0.0589	0.186	0.586	1.83	5.56	15.7	37.1	65.1
51.8	11	0.0201	0.0637	0.201	0.633	1.97	5.99	16.8	38.9	66.8
53.6	12	0.0218	0.0688	0.217	0.684	2.13	6.44	17.9	40.8	68.5
55.4	13	0.0235	0.0743	0.235	0.738	2.30	6.92	19.0	42.6	70.2
57.2	14	0.0254	0.0802	0.253	0.796	2.48	7.43	20.2	44.5	71.7
59.0	15	0.0274	0.0865	0.273	0.859	2.67	7.97	21.5	46.4	73.3
60.8	16	0.0295	0.0933	0.294	0.925	2.87	8.54	22.8	48.3	74.7
62.6	17	0.0318	0.101	0.317	0.996	3.08	9.14	24.1	50.2	76.1
64.4	18	0.0343	0.108	0.342	1.07	3.31	9.78	25.5	52.0	77.4
66.2	19	0.0369	0.117	0.368	1.15	3.56	10.5	27.0	53.9	78.7
68.0	20	0.0397	0.125	0.396	1.24	3.82	11.2	28.4	55.7	79.9
69.8	21	0.0427	0.135	0.425	1.33	4.10	11.9	29.9	57.5	81.0
71.6	22	0.0459	0.145	0.457	1.43	4.39	12.7	31.5	59.2	82.1
73.4	23	0.0493	0.156	0.491	1.54	4.70	13.5	33.0	60.9	83.2
75.2	24	0.0530	0.167	0.527	1.65	5.03	14.4	34.6	62.6	84.1
77.0	25	0.0569	0.180	0.566	1.77	5.38	15.3	36.3	64.3	85.1
78.8	26	0.0610	0.193	0.607	1.89	5.75	16.2	37.9	65.9	85.9
80.6	27	0.0654	0.207	0.651	2.03	6.15	17.2	39.6	67.4	86.8
82.4	28	0.0701	0.221	0.697	2.17	6.56	18.2	41.2	68.9	87.3
84.2	29	0.0752	0.237	0.747	2.32	7.00	19.2	42.9	70.4	88.3
86.0	30	0.0805	0.254	0.799	2.48	7.46	20.3	44.6	71.8	89.0

The generic approach for estimating NH3 assumes a default pH of 8 and default temperatures of 68 F and 85 F for cold water and warm water surface water, respectively. The resulting percent NH3 is 3.8 percent and 7.2 percent for cold water and warm water, respectively. This default percentage shall be multiplied by the total ammonia-nitrogen (NH3-N) concentration in the groundwater and the resulting NH3 concentration compared to the applicable GSI criterion. As an alternative, the maximum pH and temperature data from the specific receiving surface water can be used to estimate, from the table in this footnote, a lower percent unionized ammonia concentration for comparison to the generic GSI.

MDEQ Criteria Qualifiers (Cont'd.):

Soil: The generic soil GSI protection criteria for unionized ammonia are 580 ug/kg and 1,100 ug/kg for cold water and warm water surface water, respectively.

{DD} Hazardous substance causes developmental effects. Residential and commercial I direct contact criteria are protective of both prenatal and postnatal exposure. Industrial and commercial II, III and IV direct contact criteria are protective for a pregnant adult receptor.

{EE} The following are applicable generic GSI criteria as required by Section 20120a(15) of the NREPA.

Hazardous Substance	GSI (ug/L)	Notes
Phosphorus	1,000	Criteria applicable unless receiving water is a
Total dissolved solids (TDS)	5.00E+05	If TDS data are not available, the TDS criterion may Calcium, Chlorides, Iron, Magnesium, Potassium, Sodium, Sulfate.
Dissolved Oxygen (DO):	≥ 7,000	Since a low level of DO can be harmful to aquatic

{FF} The chloride GSI criterion shall be 125 mg/l when the discharge is to surface waters of the state designated as public water supply sources or 50 mg/l when the discharge is to the Great Lakes or connecting waters. Chloride GSI criteria shall not apply for surface waters of the state that are not designated as a public water supply source, however, the total dissolved solids criterion is applicable.

{GG} Risk-based criteria are not available for methane due to insufficient toxicity data. An acceptable soil gas concentration (presented for both residential and commercial/industrial land uses) was derived utilizing 25 percent of the lower explosive level for methane. This equates to 1.25 percent or 8.4E+6 ug/m3.

ID = Insufficient data to develop criterion.
NA = A criterion or value is not available or, in the case of background and CAS numbers, not applicable.
NLL = Hazardous substance is not likely to leach under most soil conditions.
NLV = Hazardous substance is not likely to volatilize under most conditions.

Appendix D

Delphi Analytical Data

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engineers, scientists, economists

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	MW-97-101WT	MW-97-102WT	MW-98-114WT	MW-98-115WT	MW-02-04	MW-02-04	MW-02-05
Sample Date:	8/3/04	8/4/04	8/3/04	8/3/04	8/5/04	*(duplicate)*	8/3/04
olatile organic compounds (ug/L)							
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	30 U	30 U	30 U	30 U	30 U	30 U	30 U
2-Hexanone	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1 U	1	1 U	1 U	1 U	1 U	1 U
Bromobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	**2**
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl iodide	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
o-Xylene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
p,m-Xylene	2 U	2 U	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	1 U	1 U	1 U	1 U	1 U	1 U	**5**

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	MW-97-101WT	MW-97-102WT	MW-98-114WT	MW-98-115WT	MW-02-04	MW-02-04	MW-02-05
Sample Date:	8/3/04	8/4/04	8/3/04	8/3/04	8/5/04	*(duplicate)*	8/3/04
otal metals (ug/L)							
Arsenic	**18**	**7**	**19**	**61**	**23**	**21**	**41**
Barium	**1,380**	**117**	**104**	**178**	**86**	**80**	**242**
Cadmium	0.5 U	0.5 U	0.5 U	0.5 U	**1.7**	**2.1**	0.5 U
Chromium	**5**	5 U	5 U	**11**	**6**	**5**	**8**
Copper	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Lead	3 U	**65**	3 U	3 U	3 U	3 U	3 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	**9**	5 U	5 U	**6**	**19**	**19**	5 U
Polychlorinated biphenyls (ug/L)							
PCB-1016	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)							
2-Methylnaphthalene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Acenaphthene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Anthracene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Benzo(ghi)perylene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Chrysene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Dibenzo(ah)anthracene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Fluorene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Phenanthrene	5 U	5 U	5 U	5 U	7 U	6 U	5 U
Pyrene	5 U	5 U	5 U	5 U	7 U	6 U	5 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	MW-02-07	MW-04-01WT	MW-04-01WT	MW-04-01D	MW-04-02WT	MW-04-02D	MW-142WT
Sample Date:	8/4/04	8/4/04	*(duplicate)*	8/4/04	8/4/04	8/4/04	8/4/04
olatile organic compounds (ug/L)							
1,1,1,2-Tetrachloroethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,1,1-Trichloroethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,1,2-Trichloroethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,1-Dichloroethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,1-Dichloroethene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
1,2,3-Trichloropropane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	**410**	**420**	5,000 U	**140**	1 U	1 U
1,2-Dibromo-3-chloropropane	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
1,2-Dibromoethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,2-Dichlorobenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,2-Dichloroethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,2-Dichloropropane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	**90**	**90**	5,000 U	**40**	1 U	1 U
1,3-Dichlorobenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
1,4-Dichlorobenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
2-Butanone (MEK)	30 U	600 U	500 U	100,000 U	300 U	30 U	30 U
2-Hexanone	50 U	1,000 U	1,000 U	30,000 U0	500 U	50 U	50 U
2-Methylnaphthalene	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	1,000 U	1,000 U	30,000 U0	500 U	50 U	50 U
Acetone	30 U	600 U	500 U	100,000 U	300 U	30 U	30 U
Acrylonitrile	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Benzene	1 U	**50**	**50**	5,000 U	10 U	**3**	1 U
Bromobenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Bromochloromethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Bromodichloromethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Bromoform	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Bromomethane	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Carbon disulfide	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Carbon tetrachloride	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Chlorobenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Chloroethane	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Chloroform	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Chloromethane	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
cis-1,2-Dichloroethene	**1**	**60**	**50**	**192,000**	10 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Dibromochloromethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Dibromomethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Dichlorodifluoromethane	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Diethyl ether	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Ethylbenzene	1 U	**1,420**	**1,370**	5,000 U	**270**	1 U	1 U
Hexachloroethane	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Isopropylbenzene	1 U	**40**	**40**	5,000 U	**20**	1 U	1 U
Methyl iodide	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Methylene chloride	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Naphthalene	5 U	**400**	**400**	30,000 U	**70**	5 U	5 U
n-Butylbenzene	1 U	30 U	**20**	5,000 U	10 U	1 U	1 U
n-Propylbenzene	1 U	**40**	**30**	5,000 U	**20**	1 U	1 U
o-Xylene	1 U	**1,190**	**1,180**	5,000 U	10 U	1 U	1 U
p,m-Xylene	2 U	**4,880**	**4,730**	10,000 U	**720**	2 U	2 U
p-Isopropyltoluene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
sec-Butylbenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Styrene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
tert-Butylbenzene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	100 U	100 U	30,000 U	50 U	5 U	5 U
Tetrachloroethene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Tetrahydrofuran	100 U	3,000 U	2,000 U	500,000 U	1000 U	100 U	100 U
Toluene	1 U	**30**	**30**	5,000 U	10 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Trichloroethene	1 U	30 U	20 U	**135,000**	10 U	1 U	1 U
Trichlorofluoromethane	1 U	30 U	20 U	5,000 U	10 U	1 U	1 U
Vinyl chloride	**2**	**40**	**40**	**18,000**	10 U	1 U	1 U

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	MW-02-07	MW-04-01WT	MW-04-01WT	MW-04-01D	MW-04-02WT	MW-04-02D	MW-142WT
Sample Date:	8/4/04	8/4/04	*(duplicate)*	8/4/04	8/4/04	8/4/04	8/4/04
otal metals (ug/L)							
Arsenic	**33**	**6**	**6**	2 U	**2**	**8**	**6**
Barium	**94**	**612**	**618**	**1,730**	**1,390**	**1,110**	**18,500**
Cadmium	**0.9**	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chromium	5 U	5 U	5 U	**11**	5 U	5 U	**7**
Copper	5 U	5 U	5 U	**5**	5 U	5 U	**12**
Lead	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	**11**	**12**	5 U	**11**	5 U	5 U	**50**
Polychlorinated biphenyls (ug/L)							
PCB-1016	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)							
2-Methylnaphthalene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Acenaphthene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Acenaphthylene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Anthracene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Benzo(ghi)perylene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Chrysene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Dibenzo(ah)anthracene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Fluoranthene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Fluorene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Naphthalene	7 U	**130**	**160**	**40**	**18**	5 U	5 U
Phenanthrene	7 U	6 U	10 U	5 U	5 U	5 U	5 U
Pyrene	7 U	6 U	10 U	5 U	5 U	5 U	5 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	MW-142D	MW-200S	MW-201S	MW-201D	MW-202S	MW-202D	PZ-4
Sample Date:	8/4/04	8/4/04	8/4/04	8/4/04	8/4/04	8/4/04	8/5/04
olatile organic compounds (ug/L)							
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	**1**	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	**36**	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	**9**	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	30 U	30 U	30 U	30 U	30 U	30 U	30 U
2-Hexanone	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	5 U	5 U	5 U	**6**	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	**2**	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	1 U	1 U	1 U	**3**	1 U	1 U	1 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	1 U	**25**	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U	**2**	1 U	1 U	1 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl iodide	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	**7**	5 U	5 U	5 U
n-Butylbenzene	1 U	1 U	1 U	**4**	1 U	1 U	1 U
n-Propylbenzene	1 U	1 U	1 U	**3**	1 U	1 U	1 U
o-Xylene	1 U	1 U	1 U	**8**	1 U	1 U	1 U
p,m-Xylene	2 U	2 U	2 U	**11**	2 U	2 U	2 U
p-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Toluene	1 U	1 U	1 U	**3**	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	**3**	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	1 U	**10**	1 U	1 U	1 U	1 U	1 U

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	MW-142D	MW-200S	MW-201S	MW-201D	MW-202S	MW-202D	PZ-4
Sample Date:	8/4/04	8/4/04	8/4/04	8/4/04	8/4/04	8/4/04	8/5/04
otal metals (ug/L)							
Arsenic	2 U	32	36	3	5	3	33
Barium	10,000	93	114	70	83	15	125
Cadmium	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5
Chromium	8	5	7	7	5 U	5 U	6
Copper	6	5 U	5 U	5 U	5 U	5	5 U
Lead	3 U	3 U	3 U	3 U	3 U	3	9
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	6	8	10	19	31	19	2,670
Polychlorinated biphenyls (ug/L)							
PCB-1016	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)							
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(ghi)perylene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Dibenzo(ah)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	10 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	PZ-5	PZ-7	PZ-7	PZ-9	PZ-9	PZ-24	PZ-36
Sample Date:	8/4/04	8/3/04	*(duplicate)*	8/4/04	*(duplicate)*	8/4/04	8/4/04
olatile organic compounds (ug/L)							
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	**2**	1 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	**7**
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	**2**
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	30 U	30 U	30 U	30 U	30 U	30 U	30 U
2-Hexanone	50 U	50 U	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U	50 U	50 U	50 U	50 U
Acetone	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzene	1 U	1 U	1 U	1 U	1 U	1 U	**3**
Bromobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	**45**	**1**	**1**	1 U	1 U	1 U	**1**
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Diethyl ether	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	**11**
Hexachloroethane	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	**1**
Methyl iodide	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	**1**
o-Xylene	1 U	1 U	1 U	1 U	1 U	1 U	**7**
p,m-Xylene	2 U	2 U	2 U	2 U	2 U	2 U	**28**
p-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Toluene	1 U	1 U	1 U	1 U	1 U	1 U	**2**
trans-1,2-Dichloroethene	**4**	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	**67**	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	**17**	1 U	1 U	1 U	1 U	1 U	**3**

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2						
Sample ID:	PZ-5	PZ-7	PZ-7	PZ-9	PZ-9	PZ-24	PZ-36
Sample Date:	8/4/04	8/3/04	*(duplicate)*	8/4/04	*(duplicate)*	8/4/04	8/4/04
otal metals (ug/L)							
Arsenic	**17**	**2**	**2**	**2**	**2**	**15**	**4**
Barium	**281**	**94**	**116**	**177**	**192**	**145**	**406**
Cadmium	**5.2**	0.5 U	0.5 U	**0.7**	0.5 U	0.5 U	**64**
Chromium	**29**	**19**	**25**	5 U	5 U	**10**	**8**
Copper	**55**	**11**	**12**	5 U	5 U	**7**	**15**
Lead	**29**	**3**	3 U	**5**	3 U	3 U	**10**
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	**12,300**	**24,200**	**21,500**	**3,730**	**2,550**	**7,810**	**298**
Polychlorinated biphenyls (ug/L)							
PCB-1016	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)							
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(ghi)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(ah)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2				
Sample ID:	PZ-38	PZ-39	PZ-40	PZ-44	PZ-48
Sample Date:	8/4/04	8/5/04	8/4/04	8/4/04	8/5/04
olatile organic compounds (ug/L)					
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U	1 U	20 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	20 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	20 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	20 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	20 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	20 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U	5 U	100 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U	20 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U	100 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	20 U
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	5 U	100 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	20 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	20 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	20 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	20 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	20 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	20 U
1,4-Dichloro-2-butene	5 U	5 U	5 U	5 U	100 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	20 U
2-Butanone (MEK)	30 U	30 U	30 U	30 U	500 U
2-Hexanone	50 U	50 U	50 U	50 U	1,000 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	100 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U	50 U	1,000 U
Acetone	30 U	30 U	30 U	30 U	500 U
Acrylonitrile	5 U	5 U	5 U	5 U	100 U
Benzene	1 U	1 U	1 U	1 U	20 U
Bromobenzene	1 U	1 U	1 U	1 U	20 U
Bromochloromethane	1 U	1 U	1 U	1 U	20 U
Bromodichloromethane	1 U	1 U	1 U	1 U	20 U
Bromoform	1 U	1 U	1 U	1 U	20 U
Bromomethane	5 U	5 U	5 U	5 U	100 U
Carbon disulfide	5 U	5 U	5 U	5 U	100 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	20 U
Chlorobenzene	1 U	1 U	1 U	1 U	20 U
Chloroethane	5 U	5 U	5 U	5 U	100 U
Chloroform	1 U	1 U	1 U	1 U	20 U
Chloromethane	5 U	5 U	5 U	5 U	100 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	**1,840**
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	20 U
Dibromochloromethane	1 U	1 U	1 U	1 U	20 U
Dibromomethane	1 U	1 U	1 U	1 U	20 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	100 U
Diethyl ether	5 U	5 U	5 U	5 U	100 U
Ethylbenzene	1 U	1 U	1 U	1 U	20 U
Hexachloroethane	5 U	5 U	5 U	5 U	100 U
Isopropylbenzene	1 U	1 U	1 U	1 U	20 U
Methyl iodide	1 U	1 U	1 U	1 U	20 U
Methylene chloride	5 U	5 U	5 U	5 U	100 U
Naphthalene	5 U	5 U	5 U	5 U	100 U
n-Butylbenzene	1 U	1 U	1 U	1 U	20 U
n-Propylbenzene	1 U	1 U	1 U	1 U	20 U
o-Xylene	1 U	1 U	1 U	1 U	20 U
p,m-Xylene	2 U	2 U	2 U	2 U	40 U
p-Isopropyltoluene	1 U	1 U	1 U	1 U	20 U
sec-Butylbenzene	1 U	1 U	1 U	1 U	20 U
Styrene	1 U	1 U	1 U	1 U	20 U
tert-Butylbenzene	1 U	1 U	1 U	1 U	20 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U	5 U	100 U
Tetrachloroethene	1 U	1 U	1 U	1 U	20 U
Tetrahydrofuran	100 U	100 U	100 U	100 U	2,000 U
Toluene	1 U	1 U	1 U	1 U	20 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	20 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	20 U
Trichloroethene	1 U	1 U	1 U	1 U	20 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	20 U
Vinyl chloride	**1**	1 U	**2**	1 U	**2,560**

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Delphi Plant 2				
Sample ID:	PZ-38	PZ-39	PZ-40	PZ-44	PZ-48
Sample Date:	8/4/04	8/5/04	8/4/04	8/4/04	8/5/04
otal metals (ug/L)					
Arsenic	**12**	**78**	**23**	**5**	**4**
Barium	**34**	**220**	**97**	**75**	**50**
Cadmium	0.5 U	**0.7**	0.5 U	**1.1**	0.5 U
Chromium	5 U	**14**	**9**	**6**	5 U
Copper	**6**	5 U	5 U	5 U	5 U
Lead	**6**	**3**	3 U	3 U	3 U
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U	5 U	5 U
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	5 U	**9**	5 U	**61**	5 U
Polychlorinated biphenyls (ug/L)					
PCB-1016	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	**0.6**	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)					
2-Methylnaphthalene	6 U	10 U	20 U	6 U	6 U
Acenaphthene	6 U	10 U	20 U	6 U	6 U
Acenaphthylene	6 U	10 U	20 U	6 U	6 U
Anthracene	6 U	10 U	20 U	6 U	6 U
Benzo(a)anthracene	6 U	10 U	20 U	6 U	6 U
Benzo(a)pyrene	6 U	10 U	20 U	6 U	6 U
Benzo(b)fluoranthene	6 U	10 U	**30**	6 U	6 U
Benzo(ghi)perylene	6 U	10 U	20 U	6 U	6 U
Benzo(k)fluoranthene	6 U	10 U	20 U	6 U	6 U
Chrysene	6 U	10 U	20 U	6 U	6 U
Dibenzo(ah)anthracene	6 U	10 U	20 U	6 U	6 U
Fluoranthene	6 U	10 U	**50**	6 U	6 U
Fluorene	6 U	10 U	20 U	6 U	6 U
Indeno(1,2,3-cd)pyrene	6 U	10 U	20 U	6 U	6 U
Naphthalene	6 U	10 U	20 U	6 U	6 U
Phenanthrene	6 U	10 U	20 U	6 U	6 U
Pyrene	6 U	10 U	**40**	6 U	6 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	GM SMI		
Sample ID:	B-2 BAUG	B-2R	MW01-119S1
Sample Date:	8/3/04	8/3/04	8/3/04
olatile organic compounds (ug/L)			
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U
1,2,3-Trichloropropane	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U
1,2-Dibromoethane	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	5 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U
2-Butanone (MEK)	30 U	30 U	30 U
2-Hexanone	50 U	50 U	50 U
2-Methylnaphthalene	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U
Acetone	30 U	30 U	30 U
Acrylonitrile	5 U	5 U	5 U
Benzene	1 U	1 U	1 U
Bromobenzene	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U
Bromomethane	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U
Carbon tetrachloride	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U
Chloroethane	5 U	5 U	5 U
Chloroform	1 U	1 U	1 U
Chloromethane	5 U	5 U	5 U
cis-1,2-Dichloroethene	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U
Dichlorodifluoromethane	5 U	5 U	5 U
Diethyl ether	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U
Hexachloroethane	5 U	5 U	5 U
Isopropylbenzene	1 U	1 U	1 U
Methyl iodide	1 U	1 U	1 U
Methylene chloride	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U
n-Butylbenzene	1 U	1 U	1 U
n-Propylbenzene	1 U	1 U	1 U
o-Xylene	1 U	1 U	1 U
p,m-Xylene	2 U	2 U	2 U
p-Isopropyltoluene	1 U	1 U	1 U
sec-Butylbenzene	1 U	1 U	1 U
Styrene	1 U	1 U	1 U
tert-Butylbenzene	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U
Tetrahydrofuran	100 U	100 U	100 U
Toluene	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U
Vinyl chloride	1 U	1 U	1 U

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	GM SMI		
Sample ID:	B-2 BAUG	B-2R	MW01-119S1
Sample Date:	8/3/04	8/3/04	8/3/04
otal metals (ug/L)			
Arsenic	**7**	**4**	**2**
Barium	**163**	**63**	**1,030**
Cadmium	0.5 U	**0.7**	0.5 U
Chromium	5 U	**6**	5 U
Copper	5 U	**11**	5 U
Lead	3 U	3 U	3 U
Mercury	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U
Silver	0.5 U	0.5 U	0.5 U
Zinc	5 U	**63**	5 U
Polychlorinated biphenyls (ug/L)			
PCB-1016	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)			
2-Methylnaphthalene	5 U	5 U	5 U
Acenaphthene	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U
Benzo(ghi)perylene	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U
Dibenzo(ah)anthracene	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U
Phenanthrene	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Peninsula Area						Wetland Area
Sample ID:	MW97-104WT	MW97-104S1	TW98-110WT	MW98-110S1	TW98-111WT	MW98-111S1	MW-129WT
Sample Date:	8/3/04	8/3/04	8/3/04	8/3/04	8/3/04	8/3/04	8/3/04
olatile organic compounds (ug/L)							
1,1,1,2-Tetrachloroethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,1,1-Trichloroethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,1,2,2-Tetrachloroethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,1,2-Trichloroethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,1-Dichloroethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,1-Dichloroethene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,2,3-Trichlorobenzene	5 U	100 U	5 U	500 U	5 U	300 U	5 U
1,2,3-Trichloropropane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,2,4-Trichlorobenzene	5 U	100 U	5 U	500 U	5 U	300 U	5 U
1,2,4-Trimethylbenzene	1 U	20 U	1 U	100 U	**36**	**460**	1 U
1,2-Dibromo-3-chloropropane	5 U	100 U	5 U	500 U	5 U	300 U	5 U
1,2-Dibromoethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,2-Dichlorobenzene	1 U	**30**	1 U	100 U	1 U	50 U	1 U
1,2-Dichloroethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,2-Dichloropropane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,3,5-Trimethylbenzene	1 U	20 U	1 U	100 U	**12**	**70**	1 U
1,3-Dichlorobenzene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
1,4-Dichloro-2-butene	5 U	100 U	5 U	500 U	5 U	300 U	5 U
1,4-Dichlorobenzene	**2**	**20**	1 U	100 U	1 U	50 U	1 U
2-Butanone (MEK)	30 U	500 U	30 U	300 U	30 U	100 U	30 U
2-Hexanone	50 U	1000 U	50 U	5000 U	50 U	3000 U	50 U
2-Methylnaphthalene	5 U	100 U	5 U	500 U	5 U	300 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	1000 U	50 U	5000 U	50 U	3000 U	50 U
Acetone	30 U	500 U	30 U	300 U	30 U	100 U	30 U
Acrylonitrile	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Benzene	**5**	20 U	1 U	100 U	**16**	**100**	1 U
Bromobenzene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Bromochloromethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Bromodichloromethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Bromoform	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Bromomethane	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Carbon disulfide	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Carbon tetrachloride	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Chlorobenzene	**6**	**300**	1 U	100 U	**15**	**300**	1 U
Chloroethane	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Chloroform	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Chloromethane	5 U	100 U	5 U	500 U	5 U	300 U	5 U
cis-1,2-Dichloroethene	1 U	**1,990**	1 U	**12,400**	1 U	**130**	**1**
cis-1,3-Dichloropropene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Dibromochloromethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Dibromomethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Dichlorodifluoromethane	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Diethyl ether	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Ethylbenzene	1 U	20 U	1 U	100 U	**52**	**1,690**	1 U
Hexachloroethane	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Isopropylbenzene	**3**	20 U	1 U	100 U	**5**	50 U	1 U
Methyl iodide	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Methylene chloride	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Naphthalene	5 U	100 U	5 U	500 U	**8**	300 U	5 U
n-Butylbenzene	1 U	20 U	1 U	100 U	**3**	50 U	1 U
n-Propylbenzene	**4**	20 U	1 U	100 U	**7**	**60**	1 U
o-Xylene	1 U	20 U	1 U	100 U	**58**	**970**	1 U
p,m-Xylene	2 U	40 U	2 U	200 U	**120**	**3,900**	2 U
p-Isopropyltoluene	1 U	20 U	1 U	100 U	**1**	50 U	1 U
sec-Butylbenzene	1 U	20 U	1 U	100 U	**2**	50 U	1 U
Styrene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
tert-Butylbenzene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	100 U	5 U	500 U	5 U	300 U	5 U
Tetrachloroethene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Tetrahydrofuran	100 U	2000 U	100 U	10000 U	100 U	5000 U	100 U
Toluene	1 U	20 U	1 U	100 U	**2**	**710**	1 U
trans-1,2-Dichloroethene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
trans-1,3-Dichloropropene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Trichloroethene	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Trichlorofluoromethane	1 U	20 U	1 U	100 U	1 U	50 U	1 U
Vinyl chloride	1 U	**1,550**	1 U	**1,200**	1 U	50 U	1 U

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Peninsula Area						Wetland Area
Sample ID:	MW97-104WT	MW97-104S1	TW98-110WT	MW98-110S1	TW98-111WT	MW98-111S1	MW-129WT
Sample Date:	8/3/04	8/3/04	8/3/04	8/3/04	8/3/04	8/3/04	8/3/04
otal metals (ug/L)							
Arsenic	2 U	2 U	**3**	2 U	**3**	**3**	**39**
Barium	**768**	**1,070**	**311**	**266**	**740**	**5,580**	**985**
Cadmium	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	**2**
Chromium	5 U	**5**	5 U	5 U	5 U	**16**	**50**
Copper	5 U	5 U	5 U	5 U	**6**	5 U	**86**
Lead	3 U	3 U	3 U	3 U	3 U	3 U	**92**
Mercury	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Selenium	5 U	5 U	5 U	5 U	5 U	5 U	**6**
Silver	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Zinc	5 U	5 U	5 U	5 U	5 U	5 U	**109**
Polychlorinated biphenyls (ug/L)							
PCB-1016	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1221	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1232	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1242	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1248	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1254	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
PCB-1260	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)							
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(a)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(b)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(ghi)perylene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Benzo(k)fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chrysene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibenzo(ah)anthracene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluoranthene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Fluorene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Indeno(1,2,3-cd)pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U	**77**	5 U
Phenanthrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Pyrene	5 U	5 U	5 U	5 U	5 U	5 U	5 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Quality Control Samples				
Sample ID:	Trip Blank #1	Trip Blank #2	Trip Blank #3	Trip Blank #4	Trip Blank #5
Sample Date:	8/3/04	8/3/04	8/3/04	8/4/04	8/4/04
olatile organic compounds (ug/L)					
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	30 U	30 U	30 U	30 U	30 U
2-Hexanone	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U	50 U	50 U
Acetone	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	5 U	5 U	5 U	5 U	5 U
Benzene	1 U	1 U	1 U	1 U	1 U
Bromobenzene	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U	1 U
Bromomethane	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U	1 U
Chloroethane	5 U	5 U	5 U	5 U	5 U
Chloroform	1 U	1 U	1 U	1 U	1 U
Chloromethane	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U
Diethyl ether	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	1 U	1 U	1 U	1 U	1 U
Methyl iodide	1 U	1 U	1 U	1 U	1 U
Methylene chloride	5 U	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	1 U	1 U	1 U	1 U	1 U
o-Xylene	1 U	1 U	1 U	1 U	1 U
p,m-Xylene	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	1 U	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	100 U	100 U	100 U	100 U	100 U
Toluene	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	1 U	1 U	1 U	1 U	1 U

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Quality Control Samples				
Sample ID:	Trip Blank #1	Trip Blank #2	Trip Blank #3	Trip Blank #4	Trip Blank #5
Sample Date:	8/3/04	8/3/04	8/3/04	8/4/04	8/4/04
otal metals (ug/L)					
Arsenic	-	-	-	-	-
Barium	-	-	-	-	-
Cadmium	-	-	-	-	-
Chromium	-	-	-	-	-
Copper	-	-	-	-	-
Lead	-	-	-	-	-
Mercury	-	-	-	-	-
Selenium	-	-	-	-	-
Silver	-	-	-	-	-
Zinc	-	-	-	-	-
Polychlorinated biphenyls (ug/L)					
PCB-1016	-	-	-	-	-
PCB-1221	-	-	-	-	-
PCB-1232	-	-	-	-	-
PCB-1242	-	-	-	-	-
PCB-1248	-	-	-	-	-
PCB-1254	-	-	-	-	-
PCB-1260	-	-	-	-	-
Polynuclear aromatic hydrocarbons (ug/L)					
2-Methylnaphthalene	-	-	-	-	-
Acenaphthene	-	-	-	-	-
Acenaphthylene	-	-	-	-	-
Anthracene	-	-	-	-	-
Benzo(a)anthracene	-	-	-	-	-
Benzo(a)pyrene	-	-	-	-	-
Benzo(b)fluoranthene	-	-	-	-	-
Benzo(ghi)perylene	-	-	-	-	-
Benzo(k)fluoranthene	-	-	-	-	-
Chrysene	-	-	-	-	-
Dibenzo(ah)anthracene	-	-	-	-	-
Fluoranthene	-	-	-	-	-
Fluorene	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	-	-	-	-	-
Naphthalene	-	-	-	-	-
Phenanthrene	-	-	-	-	-
Pyrene	-	-	-	-	-

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Quality Control Samples			
Sample ID:	Trip Blank #6	Trip Blank #7	Trip Blank #8	Equipment Blank
Sample Date:	8/4/04	8/5/04	8/5/04	8/3/04
'olatile organic compounds (ug/L)				
1,1,1,2-Tetrachloroethane	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	5 U	5 U	5 U	5 U
1,2-Dibromoethane	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	1 U	1 U	1 U	1 U
2-Butanone (MEK)	30 U	30 U	30 U	30 U
2-Hexanone	50 U	50 U	50 U	50 U
2-Methylnaphthalene	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	50 U	50 U	50 U	50 U
Acetone	30 U	30 U	30 U	30 U
Acrylonitrile	5 U	5 U	5 U	5 U
Benzene	1 U	1 U	1 U	1 U
Bromobenzene	1 U	1 U	1 U	1 U
Bromochloromethane	1 U	1 U	1 U	1 U
Bromodichloromethane	1 U	1 U	1 U	1 U
Bromoform	1 U	1 U	1 U	1 U
Bromomethane	5 U	5 U	5 U	5 U
Carbon disulfide	5 U	5 U	5 U	5 U
Carbon tetrachloride	1 U	1 U	1 U	1 U
Chlorobenzene	1 U	1 U	1 U	1 U
Chloroethane	5 U	5 U	5 U	5 U
Chloroform	1 U	1 U	1 U	1 U
Chloromethane	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1 U	1 U	1 U	1 U
Dibromochloromethane	1 U	1 U	1 U	1 U
Dibromomethane	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	5 U	5 U	5 U	5 U
Diethyl ether	5 U	5 U	5 U	5 U
Ethylbenzene	1 U	1 U	1 U	1 U
Hexachloroethane	5 U	5 U	5 U	5 U
Isopropylbenzene	1 U	1 U	1 U	1 U
Methyl iodide	1 U	1 U	1 U	1 U
Methylene chloride	5 U	5 U	5 U	5 U
Naphthalene	5 U	5 U	5 U	5 U
n-Butylbenzene	1 U	1 U	1 U	1 U
n-Propylbenzene	1 U	1 U	1 U	1 U
o-Xylene	1 U	1 U	1 U	1 U
p,m-Xylene	2 U	2 U	2 U	2 U
p-Isopropyltoluene	1 U	1 U	1 U	1 U
sec-Butylbenzene	1 U	1 U	1 U	1 U
Styrene	1 U	1 U	1 U	1 U
tert-Butylbenzene	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	5 U	5 U	5 U	5 U
Tetrachloroethene	1 U	1 U	1 U	1 U
Tetrahydrofuran	100 U	100 U	100 U	100 U
Toluene	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U
Trichloroethene	1 U	1 U	1 U	1 U
Trichlorofluoromethane	1 U	1 U	1 U	1 U
Vinyl chloride	1 U	1 U	1 U	1 U

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 2. August 2004 Groundwater Analytical Data
Former Delphi Plant 2
Saginaw, Michigan

Well Location:	Quality Control Samples			
Sample ID:	Trip Blank #6	Trip Blank #7	Trip Blank #8	Equipment Blank
Sample Date:	8/4/04	8/5/04	8/5/04	8/3/04
otal metals (ug/L)				
Arsenic	-	-	-	2 U
Barium	-	-	-	5 U
Cadmium	-	-	-	0.5 U
Chromium	-	-	-	5 U
Copper	-	-	-	5 U
Lead	-	-	-	3 U
Mercury	-	-	-	0.2 U
Selenium	-	-	-	5 U
Silver	-	-	-	0.5 U
Zinc	-	-	-	5 U
Polychlorinated biphenyls (ug/L)				
PCB-1016	-	-	-	0.1 U
PCB-1221	-	-	-	0.1 U
PCB-1232	-	-	-	0.1 U
PCB-1242	-	-	-	0.1 U
PCB-1248	-	-	-	0.1 U
PCB-1254	-	-	-	0.1 U
PCB-1260	-	-	-	0.1 U
Polynuclear aromatic hydrocarbons (ug/L)				
2-Methylnaphthalene	-	-	-	5 U
Acenaphthene	-	-	-	5 U
Acenaphthylene	-	-	-	5 U
Anthracene	-	-	-	5 U
Benzo(a)anthracene	-	-	-	5 U
Benzo(a)pyrene	-	-	-	5 U
Benzo(b)fluoranthene	-	-	-	5 U
Benzo(ghi)perylene	-	-	-	5 U
Benzo(k)fluoranthene	-	-	-	5 U
Chrysene	-	-	-	5 U
Dibenzo(ah)anthracene	-	-	-	5 U
Fluoranthene	-	-	-	5 U
Fluorene	-	-	-	5 U
Indeno(1,2,3-cd)pyrene	-	-	-	5 U
Naphthalene	-	-	-	5 U
Phenanthrene	-	-	-	5 U
Pyrene	-	-	-	5 U

Results reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit

Created by : B. Toth 10/15/04
Reviewed by: N. Rogers 10/18/04
C. Kempf 02/16/05

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
			MW-04-01WT	MW-04-01D	MW-04-02WT	MW-04-02D	MW-04-03WT
Analyte	GSI	FAV	12/15/2004	12/15/2004	12/16/2004	12/16/2004	12/16/2004
1,1,1,2-Tetrachloroethane	ID	ID	100 U	3,000 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	100 U	3,000 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	100 U	3,000 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	100 U	3,000 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	100 U	3,000 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	100 U	3,000 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	500 U	3,000 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	100 U	3,000 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	500 U	10,000 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	**400**	3,000 U	**69**	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	500 U	10,000 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	100 U	3,000 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	100 U	3,000 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	100 U	3,000 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	100 U	3,000 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	100 U	3,000 U	**18**	1 U	1 U
1,3-Dichlorobenzene	38	200	100 U	3,000 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	500 U	10,000 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	100 U	3,000 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	3,000 U	60,000 U	30 U	30 U	30 U
2-Hexanone	NA	ID	5,000 U	100,000 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	500 U	10000 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	5,000 U	100,000 U	50 U	50 U	50 U
Acetone	1,700	30,000	3,000 U	60,000 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	500 U	10,000 U	5 U	5 U	5 U
Benzene	200	1,800	100 U	3,000 U	**4**	**4**	1 U
Bromobenzene	NC	NC	100 U	3,000 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	100 U	3,000 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	100 U	3,000 U	1 U	1 U	1 U
Bromoform	ID	ID	100 U	3,000 U	1 U	1 U	1 U
Bromomethane	35	640	500 U	10,000 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	500 U	10,000 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	100 U	3,000 U	1 U	1 U	1 U
Chlorobenzene	47	850	100 U	3,000 U	1 U	1 U	1 U
Chloroethane	ID	20,000	500 U	10,000 U	5 U	5 U	5 U
Chloroform	170	2,600	100 U	3,000 U	1 U	1 U	1 U
Chloromethane	ID	ID	500 U	10,000 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	100 U	**176,000**	**1**	1 U	1 U
cis-1,3-Dichloropropene	NC	NC	100 U	3,000 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	100 U	3,000 U	1 U	1 U	1 U
Dibromomethane	NC	NC	100 U	3,000 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	500 U	10,000 U	5 U	5 U	5 U
Diethyl ether	ID	NC	500 U	10,000 U	5 U	5 U	5 U
Ethylbenzene	18	320	**900**	3,000 U	**92**	1 U	1 U
Hexachloroethane	6.7	140	500 U	10,000 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	100 U	3,000 U	**9**	1 U	1 U
Methyl iodide	NC	NC	100 U	3,000 U	1 U	1 U	1 U
Methylene chloride	940	17,000	500 U	10,000 U	5 U	5 U	5 U
Naphthalene	13	200	500 U	10,000 U	**15**	5 U	5 U
n-Butylbenzene	ID	ID	100 U	3,000 U	**3**	1 U	1 U
n-Propylbenzene	ID	ID	100 U	3,000 U	**12**	1 U	1 U
o-Xylene	35	630	**600**	3,000 U	**2**	1 U	1 U
p,m-Xylene	35	630	**3,600**	5,000 U	**241**	2 U	2 U
p-Isopropyltoluene	ID	ID	100 U	3,000 U	**2**	1 U	1 U
sec-Butylbenzene	ID	ID	100 U	3,000 U	**1**	1 U	1 U
Styrene	80	2,900	100 U	3,000 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	100 U	3,000 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	500 U	10,000 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	100 U	3,000 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	10,000 U	300,000 U	100 U	100 U	100 U
Toluene	140	1,700	100 U	3,000 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	100 U	3,000 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	100 U	3,000 U	1 U	1 U	1 U
Trichloroethene	200	3,500	100 U	**176,000**	1 U	1 U	1 U
Trichlorofluoromethane	NC	NC	100 U	3,000 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	100 U	**19,000**	**2**	1 U	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater/Surface Water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed GSI criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
			MW-04-03D	MW-04-04WT	MW-04-04D	MW-04-05WT	MW-04-05D
Analyte	GSI	FAV	12/16/2004	12/16/2004	12/16/2004	12/16/2004	12/16/2004
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U	10 U	20 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U	1 U	10 U	20 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U	10 U	20 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U	10 U	20 U
1,1-Dichloroethane	740	13,000	1 U	1 U	1 U	10 U	20 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U	10 U	20 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U	50 U	100 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U	10 U	20 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U	50 U	100 U
1,2,4-Trimethylbenzene	17	310	1 U	**9**	**2**	**60**	20 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U	50 U	100 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U	10 U	20 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U	10 U	20 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U	10 U	20 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U	10 U	20 U
1,3,5-Trimethylbenzene	45	810	1 U	**4**	1 U	**20**	20 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U	10 U	20 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U	50 U	100 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U	10 U	20 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U	300 U	500 U
2-Hexanone	NA	ID	50 U	50 U	50 U	500 U	1,000 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U	50 U	100 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U	500 U	1,000 U
Acetone	1,700	30,000	30 U	30 U	30 U	300 U	500 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U	50 U	100 U
Benzene	200	1,800	1 U	**3**	1 U	10 U	20 U
Bromobenzene	NC	NC	1 U	1 U	1 U	10 U	20 U
Bromochloromethane	NC	ID	1 U	1 U	1 U	10 U	20 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U	10 U	20 U
Bromoform	ID	ID	1 U	1 U	1 U	10 U	20 U
Bromomethane	35	640	5 U	5 U	5 U	50 U	100 U
Carbon disulfide	ID	ID	5 U	5 U	5 U	50 U	100 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U	10 U	20 U
Chlorobenzene	47	850	1 U	1 U	1 U	10 U	20 U
Chloroethane	ID	20,000	5 U	5 U	5 U	50 U	100 U
Chloroform	170	2,600	1 U	1 U	1 U	10 U	20 U
Chloromethane	ID	ID	5 U	5 U	5 U	50 U	100 U
cis-1,2-Dichloroethene	620	11,000	**50**	**1**	1 U	10 U	**2,070**
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	10 U	20 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U	10 U	20 U
Dibromomethane	NC	NC	1 U	1 U	1 U	10 U	20 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U	50 U	100 U
Diethyl ether	ID	NC	5 U	5 U	5 U	50 U	100 U
Ethylbenzene	18	320	1 U	**2**	1 U	**470**	**40**
Hexachloroethane	6.7	140	5 U	5 U	5 U	50 U	100 U
Isopropylbenzene	ID	ID	1 U	**1**	1 U	**10**	20 U
Methyl iodide	NC	NC	1 U	1 U	1 U	10 U	20 U
Methylene chloride	940	17,000	5 U	5 U	5 U	50 U	100 U
Naphthalene	13	200	5 U	5 U	5 U	50 U	100 U
n-Butylbenzene	ID	ID	1 U	1 U	1 U	10 U	20 U
n-Propylbenzene	ID	ID	1 U	1 U	1 U	**10**	20 U
o-Xylene	35	630	1 U	**6**	1 U	**200**	**50**
p,m-Xylene	35	630	2 U	**5**	2 U	**840**	**90**
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U	10 U	20 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U	10 U	20 U
Styrene	80	2,900	1 U	1 U	1 U	10 U	20 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U	10 U	20 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U	50 U	100 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U	10 U	20 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U	1,000 U	2,000 U
Toluene	140	1,700	1 U	**2**	1 U	10 U	20 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U	10 U	20 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	10 U	20 U
Trichloroethene	200	3,500	1 U	1 U	1 U	10 U	20 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U	10 U	20 U
Vinyl chloride	15	17,000	**112**	**1**	1 U	10 U	**2,090**

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
Analyte	GSI	FAV	MW-04-06WT 12/15/2004	MW-04-06D 12/16/2004	MW-04-06D Duplicate	MW-04-07WT 12/16/2004	MW-04-07WT Duplicate
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	**29**	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U	50 U	50 U
Acetone	1,700	30,000	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U	5 U	5 U
Benzene	200	1,800	1 U	1 U	1 U	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U	1 U	1 U
Bromoform	ID	ID	1 U	1 U	1 U	1 U	1 U
Bromomethane	35	640	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	47	850	1 U	1 U	1 U	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U	5 U	5 U	5 U
Chloroform	170	2,600	1 U	1 U	1 U	1 U	1 U
Chloromethane	ID	ID	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	18	320	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	**3**	1 U	1 U	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U	1 U	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U	5 U	5 U	5 U
Naphthalene	13	200	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ID	ID	**2**	1 U	1 U	1 U	1 U
n-Propylbenzene	ID	ID	**4**	1 U	1 U	1 U	1 U
o-Xylene	35	630	1 U	1 U	1 U	1 U	1 U
p,m-Xylene	35	630	**3**	2 U	2 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Styrene	80	2,900	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U	100 U	100 U
Toluene	140	1,700	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Trichloroethene	200	3,500	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	1 U	1 U	1 U	1 U	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
Analyte	GSI	FAV	MW-04-07D 12/16/2004	MW-04-08WT 12/16/2004	MW-04-08D 12/16/2004	MW-04-09WT 12/15/2004	MW-04-09D 12/15/2004
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U	50 U	50 U
Acetone	1,700	30,000	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U	5 U	5 U
Benzene	200	1,800	1 U	1 U	1 U	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U	1 U	1 U
Bromoform	ID	ID	1 U	1 U	1 U	1 U	1 U
Bromomethane	35	640	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	47	850	1 U	1 U	1 U	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U	5 U	5 U	5 U
Chloroform	170	2,600	1 U	1 U	1 U	1 U	1 U
Chloromethane	ID	ID	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	**50**	1 U	1 U	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	18	320	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U	1 U	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U	5 U	5 U	5 U
Naphthalene	13	200	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
o-Xylene	35	630	1 U	1 U	1 U	1 U	1 U
p,m-Xylene	35	630	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Styrene	80	2,900	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U	100 U	100 U
Toluene	140	1,700	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Trichloroethene	200	3,500	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	1 U	**42**	1 U	1 U	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
			MW-04-10WT	MW-04-10D	MW-04-11	MW-142WT	MW-142D
Analyte	GSI	FAV	12/15/2004	12/15/2004	12/15/2004	12/16/2004	12/16/2004
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	**1**	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	**1**	1 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U	50 U	50 U
Acetone	1,700	30,000	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U	5 U	5 U
Benzene	200	1,800	1 U	1 U	1 U	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U	1 U	1 U
Bromoform	ID	ID	1 U	1 U	1 U	1 U	1 U
Bromomethane	35	640	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	47	850	1 U	1 U	1 U	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U	5 U	5 U	5 U
Chloroform	170	2,600	1 U	1 U	1 U	1 U	1 U
Chloromethane	ID	ID	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	**117**	**4**	1 U	1 U	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	18	320	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U	1 U	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U	5 U	5 U	5 U
Naphthalene	13	200	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
o-Xylene	35	630	1 U	1 U	1 U	1 U	1 U
p,m-Xylene	35	630	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Styrene	80	2,900	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U	100 U	100 U
Toluene	140	1,700	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Trichloroethene	200	3,500	**102**	1 U	1 U	1 U	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	**24**	**5**	1 U	1 U	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
			MW-97-101WT	MW-97-102WT	MW-98-115WT	PZ-5	PZ-7
Analyte	GSI	FAV	12/16/2004	12/15/2004	12/16/2004	12/15/2004	12/16/2004
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	1 U	1 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U	50 U	50 U
Acetone	1,700	30,000	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U	5 U	5 U
Benzene	200	1,800	1 U	**1**	1 U	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U	1 U	1 U
Bromoform	ID	ID	1 U	1 U	1 U	1 U	1 U
Bromomethane	35	640	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	47	850	1 U	1 U	1 U	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U	5 U	5 U	5 U
Chloroform	170	2,600	1 U	1 U	1 U	1 U	1 U
Chloromethane	ID	ID	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	1 U	1 U	**22**	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	18	320	1 U	1 U	1 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U	1 U	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U	5 U	5 U	5 U
Naphthalene	13	200	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
o-Xylene	35	630	1 U	1 U	1 U	1 U	1 U
p,m-Xylene	35	630	2 U	2 U	2 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Styrene	80	2,900	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U	100 U	100 U
Toluene	140	1,700	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Trichloroethene	200	3,500	1 U	1 U	1 U	**26**	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	1 U	1 U	1 U	**23**	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells				
			PZ-9	PZ-36	MW-200S	MW-200D	MW-201S
Analyte	GSI	FAV	12/15/2004	12/16/2004	12/15/2004	12/15/2004	12/15/2004
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	1 U	**12**	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	**4**	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U	50 U	50 U
Acetone	1,700	30,000	30 U	30 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U	5 U	5 U
Benzene	200	1,800	1 U	**4**	1 U	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U	1 U	1 U
Bromoform	ID	ID	1 U	1 U	1 U	1 U	1 U
Bromomethane	35	640	5 U	5 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	47	850	1 U	1 U	1 U	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U	5 U	5 U	5 U
Chloroform	170	2,600	1 U	1 U	1 U	1 U	1 U
Chloromethane	ID	ID	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	**1**	**6**	**5**	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	18	320	1 U	**19**	1 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	1 U	**2**	1 U	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U	1 U	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U	5 U	5 U	5 U
Naphthalene	13	200	5 U	5 U	5 U	5 U	5 U
n-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
n-Propylbenzene	ID	ID	1 U	**2**	1 U	1 U	1 U
o-Xylene	35	630	1 U	**10**	1 U	1 U	1 U
p,m-Xylene	35	630	2 U	**47**	2 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
Styrene	80	2,900	1 U	1 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U	100 U	100 U
Toluene	140	1,700	1 U	**2**	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U	1 U	1 U
Trichloroethene	200	3,500	1 U	1 U	**3**	**2**	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	1 U	**3**	**2**	**2**	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Onsite Monitoring Wells	
			MW-201D	MW-201D
Analyte	GSI	FAV	12/15/2004	Duplicate
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U
1,2,4-Trimethylbenzene	17	310	**6**	**6**
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U
1,3,5-Trimethylbenzene	45	810	**2**	**2**
1,3-Dichlorobenzene	38	200	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U
Acetone	1,700	30,000	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U
Benzene	200	1,800	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U
Bromoform	ID	ID	1 U	1 U
Bromomethane	35	640	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U
Chlorobenzene	47	850	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U
Chloroform	170	2,600	1 U	1 U
Chloromethane	ID	ID	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U
Ethylbenzene	18	320	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U
Isopropylbenzene	ID	ID	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U
Naphthalene	13	200	5 U	5 U
n-Butylbenzene	ID	ID	1 U	1 U
n-Propylbenzene	ID	ID	1 U	1 U
o-Xylene	35	630	**1**	**1**
p,m-Xylene	35	630	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U
Styrene	80	2,900	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U
Toluene	140	1,700	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U
Trichloroethene	200	3,500	1 U	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U
Vinyl chloride	15	17,000	1 U	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Offsite Monitoring Wells				
			MW97-104WT	MW97-104S1	TW98-109WT	MW98-109S1	TW98-110WT
Analyte	GSI	FAV	12/17/2004	12/17/2004	12/17/2004	12/17/2004	12/17/2004
1,1,1,2-Tetrachloroethane	ID	ID	1 U	100 U	50 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	100 U	50 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	100 U	50 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	100 U	50 U	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	100 U	50 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	100 U	50 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	500 U	300 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	100 U	50 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	500 U	300 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	1 U	100 U	50 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	500 U	300 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	100 U	50 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	100 U	50 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	100 U	50 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	100 U	50 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	100 U	50 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	100 U	50 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	500 U	300 U	5 U	5 U
1,4-Dichlorobenzene	13	200	**3**	100 U	50 U	**5**	1 U
2-Butanone (MEK)	2,200	40,000	30 U	3,000 U	1,000 U	30 U	30 U
2-Hexanone	NA	ID	50 U	5,000 U	3,000 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	500 U	300 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	5,000 U	3,000 U	50 U	50 U
Acetone	1,700	30,000	30 U	3,000 U	1,000 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	500 U	300 U	5 U	5 U
Benzene	200	1,800	**5**	100 U	50 U	**9**	1 U
Bromobenzene	NC	NC	1 U	100 U	50 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	100 U	50 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	100 U	50 U	1 U	1 U
Bromoform	ID	ID	1 U	100 U	50 U	1 U	1 U
Bromomethane	35	640	5 U	500 U	300 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	500 U	300 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	100 U	50 U	1 U	1 U
Chlorobenzene	47	850	**6**	**200**	**90**	**63**	1 U
Chloroethane	ID	20,000	5 U	500 U	300 U	5 U	5 U
Chloroform	170	2,600	1 U	100 U	50 U	1 U	1 U
Chloromethane	ID	ID	5 U	500 U	300 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	**2,600**	**1,760**	**1**	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	100 U	50 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	100 U	50 U	1 U	1 U
Dibromomethane	NC	NC	1 U	100 U	50 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	500 U	300 U	5 U	5 U
Diethyl ether	ID	NC	5 U	500 U	300 U	5 U	5 U
Ethylbenzene	18	320	1 U	100 U	50 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	500 U	300 U	5 U	5 U
Isopropylbenzene	ID	ID	**5**	100 U	50 U	**3**	1 U
Methyl iodide	NC	NC	1 U	100 U	50 U	1 U	1 U
Methylene chloride	940	17,000	5 U	500 U	300 U	5 U	5 U
Naphthalene	13	200	5 U	500 U	300 U	5 U	5 U
n-Butylbenzene	ID	ID	1 U	100 U	50 U	1 U	1 U
n-Propylbenzene	ID	ID	**5**	100 U	50 U	**3**	1 U
o-Xylene	35	630	1 U	100 U	50 U	1 U	1 U
p,m-Xylene	35	630	2 U	200 U	100 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	100 U	50 U	1 U	1 U
sec-Butylbenzene	ID	ID	**1**	100 U	50 U	1 U	1 U
Styrene	80	2,900	1 U	100 U	50 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	100 U	50 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	500 U	300 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	100 U	50 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	10,000 U	5,000 U	100 U	100 U
Toluene	140	1,700	1 U	100 U	50 U	**1**	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	100 U	50 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	100 U	50 U	1 U	1 U
Trichloroethene	200	3,500	1 U	100 U	50 U	1 U	1 U
Trichlorofluoromethane	NC	NC	1 U	100 U	50 U	1 U	1 U
Vinyl chloride	15	17,000	1 U	**2,300**	**6,880**	**63**	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Offsite Monitoring Wells				
			MW98-110S1	MW-98-110S1	TW98-111WT	MW98-111S1	MW01-118WT
Analyte	GSI	FAV	12/17/2004	Duplicate	12/17/2004	12/17/2004	12/17/2004
1,1,1,2-Tetrachloroethane	ID	ID	100 U	100 U	1 U	30 U	1 U
1,1,1-Trichloroethane	200	1,600	100 U	100 U	1 U	30 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	100 U	100 U	1 U	30 U	1 U
1,1,2-Trichloroethane	330	5,600	100 U	100 U	1 U	30 U	1 U
1,1-Dichloroethane	740	13,000	100 U	100 U	1 U	30 U	1 U
1,1-Dichloroethene	65	2,300	100 U	100 U	1 U	30 U	1 U
1,2,3-Trichlorobenzene	NC	NC	500 U	500 U	5 U	100 U	5 U
1,2,3-Trichloropropane	NC	NC	100 U	100 U	1 U	30 U	1 U
1,2,4-Trichlorobenzene	30	200	500 U	500 U	5 U	100 U	5 U
1,2,4-Trimethylbenzene	17	310	100 U	100 U	**36**	**510**	1 U
1,2-Dibromo-3-chloropropane	NC	NC	500 U	500 U	5 U	100 U	5 U
1,2-Dibromoethane	NC	ID	100 U	100 U	1 U	30 U	1 U
1,2-Dichlorobenzene	16	240	100 U	100 U	1 U	30 U	1 U
1,2-Dichloroethane	360	15,000	100 U	100 U	1 U	30 U	1 U
1,2-Dichloropropane	290	4,000	100 U	100 U	1 U	30 U	1 U
1,3,5-Trimethylbenzene	45	810	100 U	100 U	**12**	**90**	1 U
1,3-Dichlorobenzene	38	200	100 U	100 U	**1**	30 U	1 U
1,4-Dichloro-2-butene	NC	NC	500 U	500 U	5 U	100 U	5 U
1,4-Dichlorobenzene	13	200	100 U	100 U	1 U	30 U	1 U
2-Butanone (MEK)	2,200	40,000	3,000 U	3,000 U	30 U	600 U	30 U
2-Hexanone	NA	ID	5,000 U	5,000 U	50 U	1,000 U	50 U
2-Methylnaphthalene	ID	ID	500 U	500 U	5 U	100 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	5,000 U	5,000 U	50 U	1,000 U	50 U
Acetone	1,700	30,000	3,000 U	3,000 U	30 U	600 U	30 U
Acrylonitrile	4.9	1,200	500 U	500 U	5 U	100 U	5 U
Benzene	200	1,800	100 U	100 U	**15**	**90**	**2**
Bromobenzene	NC	NC	100 U	100 U	1 U	30 U	1 U
Bromochloromethane	NC	ID	100 U	100 U	1 U	30 U	1 U
Bromodichloromethane	ID	NC	100 U	100 U	1 U	30 U	1 U
Bromoform	ID	ID	100 U	100 U	1 U	30 U	1 U
Bromomethane	35	640	500 U	500 U	5 U	100 U	5 U
Carbon disulfide	ID	ID	500 U	500 U	5 U	100 U	5 U
Carbon tetrachloride	45	1,600	100 U	100 U	1 U	30 U	1 U
Chlorobenzene	47	850	100 U	100 U	**11**	**230**	**43**
Chloroethane	ID	20,000	500 U	500 U	5 U	100 U	5 U
Chloroform	170	2,600	100 U	100 U	1 U	30 U	1 U
Chloromethane	ID	ID	500 U	500 U	5 U	100 U	5 U
cis-1,2-Dichloroethene	620	11,000	**8,100**	**7,500**	1 U	30 U	**4**
cis-1,3-Dichloropropene	NC	NC	100 U	100 U	1 U	30 U	1 U
Dibromochloromethane	ID	ID	100 U	100 U	1 U	30 U	1 U
Dibromomethane	NC	NC	100 U	100 U	1 U	30 U	1 U
Dichlorodifluoromethane	NC	ID	500 U	500 U	5 U	100 U	5 U
Diethyl ether	ID	NC	500 U	500 U	5 U	100 U	5 U
Ethylbenzene	18	320	100 U	100 U	**51**	**1,860**	**2**
Hexachloroethane	6.7	140	500 U	500 U	5 U	100 U	5 U
Isopropylbenzene	ID	ID	100 U	100 U	**5**	**60**	1 U
Methyl iodide	NC	NC	100 U	100 U	1 U	30 U	1 U
Methylene chloride	940	17,000	500 U	500 U	5 U	100 U	5 U
Naphthalene	13	200	500 U	500 U	**13**	**200**	5 U
n-Butylbenzene	ID	ID	100 U	100 U	**4**	30 U	1 U
n-Propylbenzene	ID	ID	100 U	100 U	**6**	**70**	1 U
o-Xylene	35	630	100 U	100 U	**52**	**1,460**	**1**
p,m-Xylene	35	630	200 U	200 U	**110**	**4,290**	**3**
p-Isopropyltoluene	ID	ID	100 U	100 U	**2**	30 U	1 U
sec-Butylbenzene	ID	ID	100 U	100 U	**3**	30 U	1 U
Styrene	80	2,900	100 U	100 U	1 U	30 U	1 U
tert-Butylbenzene	ID	ID	100 U	100 U	1 U	30 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	500 U	500 U	5 U	100 U	5 U
Tetrachloroethene	45	2,900	100 U	100 U	1 U	30 U	1 U
Tetrahydrofuran	11,000	150,000	10,000 U	10,000 U	100 U	3,000 U	100 U
Toluene	140	1,700	100 U	100 U	**3**	**530**	1 U
trans-1,2-Dichloroethene	1,500	28,000	100 U	100 U	1 U	30 U	1 U
trans-1,3-Dichloropropene	NC	NC	100 U	100 U	1 U	30 U	1 U
Trichloroethene	200	3,500	100 U	100 U	1 U	30 U	1 U
Trichlorofluoromethane	NC	NC	100 U	100 U	1 U	30 U	1 U
Vinyl chloride	15	17,000	**1,700**	**1,500**	1 U	30 U	**27**

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Offsite Monitoring Wells				
			MW04-118S1	MW04-122WT	MW04-122S1	MW04-123WT	MW-04-123WT
Analyte	GSI	FAV	12/17/2004	12/17/2004	12/17/2004	12/17/2004	Duplicate
1,1,1,2-Tetrachloroethane	ID	ID	50 U	1 U	100 U	200 U	200 U
1,1,1-Trichloroethane	200	1,600	50 U	1 U	100 U	200 U	200 U
1,1,2,2-Tetrachloroethane	78	1,800	50 U	1 U	100 U	200 U	200 U
1,1,2-Trichloroethane	330	5,600	50 U	1 U	100 U	200 U	200 U
1,1-Dichloroethane	740	13,000	50 U	1 U	100 U	200 U	200 U
1,1-Dichloroethene	65	2,300	50 U	1 U	100 U	200 U	200 U
1,2,3-Trichlorobenzene	NC	NC	300 U	5 U	500 U	1,000 U	1,000 U
1,2,3-Trichloropropane	NC	NC	50 U	1 U	100 U	200 U	200 U
1,2,4-Trichlorobenzene	30	200	300 U	5 U	500 U	1,000 U	1,000 U
1,2,4-Trimethylbenzene	17	310	50 U	**6**	100 U	200 U	200 U
1,2-Dibromo-3-chloropropane	NC	NC	300 U	5 U	500 U	1,000 U	1,000 U
1,2-Dibromoethane	NC	ID	50 U	1 U	100 U	200 U	200 U
1,2-Dichlorobenzene	16	240	**60**	1 U	100 U	200 U	200 U
1,2-Dichloroethane	360	15,000	50 U	1 U	100 U	200 U	200 U
1,2-Dichloropropane	290	4,000	50 U	1 U	100 U	200 U	200 U
1,3,5-Trimethylbenzene	45	810	50 U	1 U	100 U	200 U	200 U
1,3-Dichlorobenzene	38	200	50 U	1 U	100 U	200 U	200 U
1,4-Dichloro-2-butene	NC	NC	300 U	5 U	500 U	1,000 U	1,000 U
1,4-Dichlorobenzene	13	200	50 U	**2**	100 U	200 U	200 U
2-Butanone (MEK)	2,200	40,000	1,000 U	30 U	3,000 U	5,000 U	5,000 U
2-Hexanone	NA	ID	3,000 U	50 U	5,000 U	10,000 U	10,000 U
2-Methylnaphthalene	ID	ID	300 U	5 U	500 U	1,000 U	1,000 U
4-Methyl-2-pentanone (MIBK)	ID	ID	3,000 U	50 U	5,000 U	10,000 U	10,000 U
Acetone	1,700	30,000	1,000 U	30 U	3,000 U	5,000 U	5,000 U
Acrylonitrile	4.9	1,200	300 U	5 U	500 U	1,000 U	1000 U
Benzene	200	1,800	50 U	**17**	100 U	200 U	200 U
Bromobenzene	NC	NC	50 U	1 U	100 U	200 U	200 U
Bromochloromethane	NC	ID	50 U	1 U	100 U	200 U	200 U
Bromodichloromethane	ID	NC	50 U	1 U	100 U	200 U	200 U
Bromoform	ID	ID	50 U	1 U	100 U	200 U	200 U
Bromomethane	35	640	300 U	5 U	500 U	1,000 U	1,000 U
Carbon disulfide	ID	ID	300 U	5 U	500 U	1,000 U	1,000 U
Carbon tetrachloride	45	1,600	50 U	1 U	100 U	200 U	200 U
Chlorobenzene	47	850	**190**	**82**	**100**	200 U	200 U
Chloroethane	ID	20,000	300 U	5 U	500 U	1,000 U	1,000 U
Chloroform	170	2,600	50 U	1 U	100 U	200 U	200 U
Chloromethane	ID	ID	300 U	5 U	500 U	1,000 U	1,000 U
cis-1,2-Dichloroethene	620	11,000	**850**	**162**	**2,100**	**10,500**	**10,100**
cis-1,3-Dichloropropene	NC	NC	50 U	1 U	100 U	200 U	200 U
Dibromochloromethane	ID	ID	50 U	1 U	100 U	200 U	200 U
Dibromomethane	NC	NC	50 U	1 U	100 U	200 U	200 U
Dichlorodifluoromethane	NC	ID	300 U	5 U	500 U	1,000 U	1,000 U
Diethyl ether	ID	NC	300 U	5 U	500 U	1,000 U	1,000 U
Ethylbenzene	18	320	**190**	**42**	**400**	200 U	200 U
Hexachloroethane	6.7	140	300 U	5 U	500 U	1,000 U	1,000 U
Isopropylbenzene	ID	ID	50 U	**15**	100 U	200 U	200 U
Methyl iodide	NC	NC	50 U	1 U	100 U	200 U	200 U
Methylene chloride	940	17,000	300 U	5 U	500 U	1,000 U	1,000 U
Naphthalene	13	200	300 U	5 U	500 U	1,000 U	1,000 U
n-Butylbenzene	ID	ID	50 U	**7**	100 U	200 U	200 U
n-Propylbenzene	ID	ID	50 U	**18**	100 U	200 U	200 U
o-Xylene	35	630	50 U	**10**	**100**	200 U	200 U
p,m-Xylene	35	630	100 U	**71**	**700**	400 U	400 U
p-Isopropyltoluene	ID	ID	50 U	1 U	100 U	200 U	200 U
sec-Butylbenzene	ID	ID	50 U	**3**	100 U	200 U	200 U
Styrene	80	2,900	50 U	1 U	100 U	200 U	200 U
tert-Butylbenzene	ID	ID	50 U	1 U	100 U	200 U	200 U
tert-Methyl butyl ether (MTBE)	730	13,000	300 U	5 U	500 U	1,000 U	1,000 U
Tetrachloroethene	45	2,900	50 U	1 U	100 U	200 U	200 U
Tetrahydrofuran	11,000	150,000	5,000 U	100 U	10,000 U	20,000 U	20,000 U
Toluene	140	1,700	**60**	**6**	**200**	200 U	200 U
trans-1,2-Dichloroethene	1,500	28,000	50 U	**1**	100 U	200 U	200 U
trans-1,3-Dichloropropene	NC	NC	50 U	1 U	100 U	200 U	200 U
Trichloroethene	200	3,500	50 U	1 U	100 U	200 U	200 U
Trichlorofluoromethane	NC	NC	50 U	1 U	100 U	200 U	200 U
Vinyl chloride	15	17,000	**8,250**	**226**	**6,500**	**30,600**	**35,300**

Concentrations reported in micrograms per liter (ug/L)
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FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Offsite Monitoring Wells			
			MW04-123S1	MW04-124WT	MW04-124S1	MW-129WT
Analyte	GSI	FAV	12/17/2004	12/17/2004	12/17/2004	12/17/2004
1,1,1,2-Tetrachloroethane	ID	ID	50 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	50 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	50 U	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	50 U	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	50 U	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	50 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	300 U	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	50 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	300 U	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	50 U	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	300 U	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	50 U	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	50 U	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	50 U	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	50 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	50 U	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	50 U	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	300 U	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	50 U	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	1,000 U	30 U	30 U	30 U
2-Hexanone	NA	ID	3,000 U	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	300 U	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	3,000 U	50 U	50 U	50 U
Acetone	1,700	30,000	1,000 U	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	300 U	5 U	5 U	5 U
Benzene	200	1,800	50 U	1 U	1 U	1 U
Bromobenzene	NC	NC	50 U	1 U	1 U	1 U
Bromochloromethane	NC	ID	50 U	1 U	1 U	1 U
Bromodichloromethane	ID	NC	50 U	1 U	1 U	1 U
Bromoform	ID	ID	50 U	1 U	1 U	1 U
Bromomethane	35	640	300 U	5 U	5 U	5 U
Carbon disulfide	ID	ID	300 U	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	50 U	1 U	1 U	1 U
Chlorobenzene	47	850	50 U	**1**	1 U	1 U
Chloroethane	ID	20,000	300 U	5 U	5 U	5 U
Chloroform	170	2,600	50 U	1 U	1 U	1 U
Chloromethane	ID	ID	300 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	**1,780**	**2**	1 U	1 U
cis-1,3-Dichloropropene	NC	NC	50 U	1 U	1 U	1 U
Dibromochloromethane	ID	ID	50 U	1 U	1 U	1 U
Dibromomethane	NC	NC	50 U	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	300 U	5 U	5 U	5 U
Diethyl ether	ID	NC	300 U	5 U	5 U	5 U
Ethylbenzene	18	320	50 U	**1**	1 U	1 U
Hexachloroethane	6.7	140	300 U	5 U	5 U	5 U
Isopropylbenzene	ID	ID	50 U	1 U	1 U	1 U
Methyl iodide	NC	NC	50 U	1 U	1 U	1 U
Methylene chloride	940	17,000	300 U	5 U	5 U	5 U
Naphthalene	13	200	300 U	5 U	5 U	5 U
n-Butylbenzene	ID	ID	50 U	1 U	1 U	1 U
n-Propylbenzene	ID	ID	50 U	1 U	1 U	1 U
o-Xylene	35	630	50 U	1 U	1 U	1 U
p,m-Xylene	35	630	100 U	**2**	2 U	2 U
p-Isopropyltoluene	ID	ID	50 U	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	50 U	1 U	1 U	1 U
Styrene	80	2,900	50 U	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	50 U	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	300 U	5 U	5 U	5 U
Tetrachloroethene	45	2,900	50 U	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	5,000 U	100 U	100 U	100 U
Toluene	140	1,700	50 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	50 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	50 U	1 U	1 U	1 U
Trichloroethene	200	3,500	50 U	1 U	1 U	1 U
Trichlorofluoromethane	NC	NC	50 U	1 U	1 U	1 U
Vinyl chloride	15	17,000	**7,350**	**6**	**12**	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December 2(
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 3. December 2004 Groundwater Analytical Data
Volatile Organic Compounds
Delphi Former Plant 2, Saginaw, Michigan

			Quality Control Samples		
			MW-200	MW-201	MW-202
Analyte	GSI	FAV	Equip. Blank	Equip. Blank	Equip. Blank
1,1,1,2-Tetrachloroethane	ID	ID	1 U	1 U	1 U
1,1,1-Trichloroethane	200	1,600	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	78	1,800	1 U	1 U	1 U
1,1,2-Trichloroethane	330	5,600	1 U	1 U	1 U
1,1-Dichloroethane	740	13,000	1 U	1 U	1 U
1,1-Dichloroethene	65	2,300	1 U	1 U	1 U
1,2,3-Trichlorobenzene	NC	NC	5 U	5 U	5 U
1,2,3-Trichloropropane	NC	NC	1 U	1 U	1 U
1,2,4-Trichlorobenzene	30	200	5 U	5 U	5 U
1,2,4-Trimethylbenzene	17	310	1 U	1 U	1 U
1,2-Dibromo-3-chloropropane	NC	NC	5 U	5 U	5 U
1,2-Dibromoethane	NC	ID	1 U	1 U	1 U
1,2-Dichlorobenzene	16	240	1 U	1 U	1 U
1,2-Dichloroethane	360	15,000	1 U	1 U	1 U
1,2-Dichloropropane	290	4,000	1 U	1 U	1 U
1,3,5-Trimethylbenzene	45	810	1 U	1 U	1 U
1,3-Dichlorobenzene	38	200	1 U	1 U	1 U
1,4-Dichloro-2-butene	NC	NC	5 U	5 U	5 U
1,4-Dichlorobenzene	13	200	1 U	1 U	1 U
2-Butanone (MEK)	2,200	40,000	30 U	30 U	30 U
2-Hexanone	NA	ID	50 U	50 U	50 U
2-Methylnaphthalene	ID	ID	5 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ID	ID	50 U	50 U	50 U
Acetone	1,700	30,000	30 U	30 U	30 U
Acrylonitrile	4.9	1,200	5 U	5 U	5 U
Benzene	200	1,800	1 U	1 U	1 U
Bromobenzene	NC	NC	1 U	1 U	1 U
Bromochloromethane	NC	ID	1 U	1 U	1 U
Bromodichloromethane	ID	NC	1 U	1 U	1 U
Bromoform	ID	ID	1 U	1 U	1 U
Bromomethane	35	640	5 U	5 U	5 U
Carbon disulfide	ID	ID	5 U	5 U	5 U
Carbon tetrachloride	45	1,600	1 U	1 U	1 U
Chlorobenzene	47	850	1 U	1 U	1 U
Chloroethane	ID	20,000	5 U	5 U	5 U
Chloroform	170	2,600	1 U	1 U	1 U
Chloromethane	ID	ID	5 U	5 U	5 U
cis-1,2-Dichloroethene	620	11,000	1 U	2	1 U
cis-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U
Dibromochloromethane	ID	ID	1 U	1 U	1 U
Dibromomethane	NC	NC	1 U	1 U	1 U
Dichlorodifluoromethane	NC	ID	5 U	5 U	5 U
Diethyl ether	ID	NC	5 U	5 U	5 U
Ethylbenzene	18	320	1 U	1 U	1 U
Hexachloroethane	6.7	140	5 U	5 U	5 U
Isopropylbenzene	ID	ID	1 U	1 U	1 U
Methyl iodide	NC	NC	1 U	1 U	1 U
Methylene chloride	940	17,000	5 U	5 U	5 U
Naphthalene	13	200	5 U	5 U	5 U
n-Butylbenzene	ID	ID	1 U	1 U	1 U
n-Propylbenzene	ID	ID	1 U	1 U	1 U
o-Xylene	35	630	1 U	1 U	1 U
p,m-Xylene	35	630	2 U	2 U	2 U
p-Isopropyltoluene	ID	ID	1 U	1 U	1 U
sec-Butylbenzene	ID	ID	1 U	1 U	1 U
Styrene	80	2,900	1 U	1 U	1 U
tert-Butylbenzene	ID	ID	1 U	1 U	1 U
tert-Methyl butyl ether (MTBE)	730	13,000	5 U	5 U	5 U
Tetrachloroethene	45	2,900	1 U	1 U	1 U
Tetrahydrofuran	11,000	150,000	100 U	100 U	100 U
Toluene	140	1,700	1 U	1 U	1 U
trans-1,2-Dichloroethene	1,500	28,000	1 U	1 U	1 U
trans-1,3-Dichloropropene	NC	NC	1 U	1 U	1 U
Trichloroethene	200	3,500	1 U	1 U	1 U
Trichlorofluoromethane	NC	NC	1 U	1 U	1 U
Vinyl chloride	15	17,000	1 U	1 U	1 U

Concentrations reported in micrograms per liter (ug/L)
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater surface water interface cleanup criteria (MDEQ Part 201, December
NC - No criterion
ID - Insufficient data to develop criterion
Results that exceed criteria are boxed and bolded.
Results that exceed FAVs are boxed, bolded, and shaded.

Table 4: Historical Analytical Groundwater Data - Onsite Wells
Delphi Former Plant 2
Saginaw, Michigan

	Compound Detected:	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	VC	1,1,1-TCA	1,1-DCA	CA	Benzene	Toluene	Ethylbenzene	o-Xylene	p,m-Xylene	Naphthalene	1,2,4-TMB	1,3,5-TMB	CB	1,2-DCB	1,4-DCB
	FAV:	3,500	11,000	28,000	2,300	17,000	1,600	13,000	20,000	1,800	1,700	320	630	630	200	310	810	950	240	200
	GSI Criterion:	200	620	1,500	65	15	200	380	ID	200	140	18	35	35	13	17	45	47	16	13
Onsite Recovery Wells	**Sample Date**																			
MH North	December-2002	1.1	1.1	1 U	1 U	3	1 U	1.3	1 U	1 U	1.5	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MH South	December-2002	1 U	45	2.6	1 U	46	1 U	18	3.9	2.4	2.1	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-11	December-2002	3.4	75	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U	2 U	12	1 U	1 U	1 U	1 U	1 U
MW-16	December-2002	1 U	34	1 U	1 U	43	1 U	1 U	1 U	2.6	3.4	1 U	1 U	2 U	8.1	1 U	1 U	1 U	1 U	1 U
RW-A	December-2002	1.2	4.5	1 U	1 U	3.2	1 U	7.6	94	1.9	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
RW-B	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.4	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
RW-C	December-2002	1.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
RW-D	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
RW-E	December-2002	1.3	570	8.7	1.4	3,000	1 U	1 U	1 U	1.8	1 U	1 U	1 U	2 U	5 U	4	1.5	1 U	1 U	1 U
RW-F	December-2002	3,100	2,400	33	10	290	1 U	1 U	1 U	2	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
Onsite Monitoring Wells	**Sample Date**																			
MW-02-01	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-02	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-03	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-04	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-05	December-2002	1 U	93	1 U	1 U	150	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	2	1 U	1 U	5	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-06	December-2002	4.2	56	1 U	1 U	94	1 U	1.1	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-07	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1	1 U	1 U	2	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-08	December-2002	120	150,000	4,800	170	5,200	1 U	1,100	14	9.6	4.1	4.8	14	17	11	40	9.6	1 U	1 U	1 U
MW-02-09	December-2002	10	140	1 U	1 U	39	1 U	1.4	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-10	December-2002	1 U	38	1 U	1 U	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-11	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-02-12	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.6	3.4	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-01WT	August-2004	30 U	60	30 U	30 U	40	30 U	30 U	100 U	50	30	1,420	1,190	4,880	400	410	90	30 U	30 U	30 U
	December-2004	100 U	100 U	100 U	100 U	100 U	100 U	100 U	500 U	100 U	100 U	900	600	3,600	500 U	400	100 U	100 U	100 U	100 U
MW-04-01D	August-2004	135,000	192,000	5,000 U	5,000 U	18,000	5,000 U	5,000 U	30,000 U	5,000 U	5,000 U	5,000 U	5,000 U	10,000 U	40	5,000 U	5,000 U	5,000 U	5,000 U	5,000 U
	December-2004	176,000	176,000	3,000 U	3,000 U	19,000	3000 U	3,000 U	1,0000 U	3,000 U	3,000 U	3,000 U	5,000 U	5,000 U	10,000 U	3,000 U	3,000 U	3,000 U	3000 U	3,000 U
MW-04-02WT	August-2004	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	270	10 U	720	70	140	40	10 U	10 U	10 U
	December-2004	1 U	1	1 U	1 U	2	1 U	1 U	5 U	4	1 U	92	2	241	15	69	18	1 U	1 U	1 U
MW-04-02D	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	3	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	4	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-03WT	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-03D	December-2004	1 U	50	1 U	1 U	112	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-04WT	December-2004	1 U	1	1 U	1 U	1	1 U	1 U	5 U	3	2	2	6	5	5 U	9	4	1 U	1 U	1 U
MW-04-04D	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	2	1 U	1 U	1 U	1 U
MW-04-05WT	December-2004	10 U	10 U	10 U	10 U	10 U	10 U	10 U	50 U	10 U	10 U	470	200	640	50 U	60	20	10 U	10 U	10 U
MW-04-05D	December-2004	20 U	2,070	20 U	20 U	2,090	20 U	20 U	100 U	20 U	20 U	40	50	90	100 U	20 U	20 U	20 U	20 U	20 U
MW-04-06WT	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	3	5 U	29	1 U	1 U	1 U	1 U
MW-04-06D	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-07WT	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-07D	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-08WT	December-2004	1 U	50	1 U	1 U	42	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-08D	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-09WT	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-09D	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-10WT	December-2004	102	117	1 U	1 U	24	1	1	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-10D	December-2004	1 U	4	1 U	1 U	6	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-04-11	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-97-101WT	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-97-102WT	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-97-103WT	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-97-103S1	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-98-114WT	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-98-115WT	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-98-116WT	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-98-117WT	December-2002	2.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-142WT	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.8	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-142D	June-2001	1 U	16	1 U	1 U	37	1 U	1 U	1 U	1.1	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U

Table 4: Historical Analytical Groundwater Data - Onsite Wells
Delphi Former Plant 2
Saginaw, Michigan

	Compound Detected:	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	VC	1,1,1-TCA	1,1-DCA	CA	Benzene	Toluene	Ethylbenzene	o-Xylene	p,m-Xylene	Naphthalene	1,2,4-TMB	1,3,5-TMB	CB	1,2-DCB	1,4-DCB
	FAV:	3,500	11,000	28,000	2,300	17,000	1,600	13,000	20,000	1,800	1,700	320	630	630	200	310	810	850	240	200
	GSI Criterion:	200	620	1,500	65	15	200	360	ID	200	140	18	35	35	13	17	45	47	16	13
MW-154WT	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-155WT	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-156WT	June-2001	16	280	1.9	7.9	110	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	65	100	2.7	5.2	48	1 U	1 U	6.8	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
MW-166WT	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.6	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-167WT	December-2002	1 U	17	1 U	1 U	75	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
MW-200S	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	25	3	1 U	10	1 U	1	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	3	6	1 U	1 U	2	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-200D	December-2004	2	5	1 U	1 U	2	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-201S	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-201D	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	3	2	8	11	7	36	9	1 U	1 U	1 U
MW-202S	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1	2 U	5 U	6	2	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-202D	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-203S	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	July-2001	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U	5,000 U *	13,000 U	2,500 U	2,500 U	2,500 U	2,500 U	2,500 U
MW-203D	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
PZ-4	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-5	August-2004	67	45	4	2	17	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	26	22	1 U	1 U	23	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-7	August-2004	1 U	1	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-9	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-24	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-36	June-2001	4	6.3	2.7	1 U	27	1 U	1 U	1 U	3.2	2.5	12	1 U	37 *	5 U	5.8	1.8	1 U	1 U	1 U
	December-2002	1 U	1.4	1.3	1 U	9.7	1 U	1 U	1 U	3.3	2	11	7.2	29	5 U	8.2	2.5	1 U	1 U	1 U
	August-2004	1 U	1	1 U	1 U	3	1 U	1 U	5 U	3	2	11	7	28	5 U	7	2	1 U	1 U	1 U
	December-2004	1 U	1	1 U	1 U	3	1 U	1 U	5 U	4	2	19	10	47	5 U	12	4	1 U	1 U	1 U
PZ-37	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.1	1 U	1 U	1 U	5.2 *	7.2	2.3	1 U	1 U	1 U	1 U
PZ-38	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-39	June-2001	1 U	8.4	1 U	1 U	2.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-40	August-2004	1 U	1 U	1 U	1 U	2	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-44	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
PZ-48	August-2004	20 U	1,840	20 U	20 U	2,560	20 U	20 U	100 U	20 U	20 U	20 U	20 U	40 U	6	20 U	20 U	20 U	20 U	20 U

Compounds shown are those detected with a GSI criterion or FAV.
Concentrations reported in micrograms per liter (ug/L).
U - The analyte was not detected above the indicated reporting limit.
Detected results are bolded.
Results that exceed GSI criteria are boxed and bolded.
Results that exceed GSI criteria and FAVs are boxed, bolded, and shaded.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - MDEQ Part 201 Groundwater/Surface Water Interface Cleanup Criteria (December 2004)
* Results based on total xylene analysis.
- Not analyzed

TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-Dichloroethene
trans-1,2-DCE	trans-1,2-Dichloroethene
1,1-DCE	1,1-Dichloroethene
VC	Vinyl Chloride
1,1,1-TCA	1,1,1-Trichloroethane
1,1-DCA	1,1,-Dichloroethane
CA	Chloroethane
CB	Chlorobenzene
1,2,4-TMB	1,2,4-Trimethylbenzene
1,3,5-TMB	1,3,5-Trimethylbenzene
1,2-DCB	1,2-Dichlorobenzene

Table 4: Historical Analytical Groundwater Data - Onsite Wells
Delphi Former Plant 2
Saginaw, Michigan

	Compound Detected:	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
	FAV:	680	10,036	35	3,327	92	736	2.8	120	1.1	710
	GSI Criterion:	150	674	3	103	13	16	0.0013	5	0.2	167
Onsite Recovery Wells	**Sample Date**										
MH North	December-2002	33	190	0.2 U	1.9	5.9	2	0.2 U	2.4	0.4 U	9
MH South	December-2002	38	350	0.2 U	2.3	6.8	4.4	0.2 U	2.4	0.4 U	14
MW-11	December-2002	28	63	12	11	220	140	0.2 U	1.6 U	0.4 U	2,400
MW-16	December-2002	16	20	7.6	3.4	34	48	0.2 U	1.6 U	0.4 U	9,200
RW-A	December-2002	12	660	0.2 U	2.4	3.7	5.5	0.2 U	1.6 U	0.4 U	45
RW-B	December-2002	28	1,000	0.2 U	2.9	12	9.1	0.2 U	1.6 U	0.4 U	79
RW-C	December-2002	17	190	0.36	29	220	34	0.2 U	4.7	1.4	83
RW-D	December-2002	8.8	210	0.2 U	4.9	8.1	4.5	0.2 U	1.6 U	0.4 U	82
RW-E	December-2002	12	890	0.2 U	7.6	13	7.6	0.2 U	2.7	0.4 U	39
RW-F	December-2002	18	470	0.34	37	48	21	0.2 U	2	0.4 U	200
Onsite Monitoring Wells	**Sample Date**										
MW-02-01	December-2002	150	230	3.3	1.4	2.9	0.93	0.2 U	1.6 U	0.4 U	18
MW-02-02	December-2002	48	220	3.3	0.66	2.9	1	0.2 U	1.6 U	0.4 U	87
MW-02-03	December-2002	11	600	0.56	0.84	3	0.5	0.2 U	1.6 U	0.4 U	23
MW-02-04	December-2002	33	120	7.3	2.3	3	1.5	0.2 U	1.6 U	0.4 U	100
	August-2004	23	88	1.7	6	5 U	3 U	0.2 U	5 U	0.5 U	19
MW-02-05	December-2002	53	410	1.7	0.28	7.3	4.3	0.2 U	1.6 U	0.4 U	34
	August-2004	41	242	0.5 U	8	5 U	3 U	0.2 U	5 U	0.5 U	5 U
MW-02-06	December-2002	7.5	57	0.2 U	2.2	34	15	0.2 U	2.1	0.4 U	10
MW-02-07	December-2002	39	130	0.2 U	0.66	1.4	0.4 U	0.2 U	1.6 U	0.4 U	6 U
	August-2004	33	94	0.9	5 U	5 U	3 U	0.2 U	5 U	0.5 U	11
MW-02-08	December-2002	30	280	0.2 U	4	2	2	0.2 U	3	0.4 U	11
MW-02-09	December-2002	17	94	0.2 U	3.2	3.7	0.46	0.2 U	4.5	0.4 U	63
MW-02-10	December-2002	20	39	0.53	1.3	2.8	1.6	0.2 U	2.1	0.4 U	24
MW-02-11	December-2002	10	3,100	4.7	3.2	3.8	1.4	0.2 U	3.8	0.4 U	150
MW-02-12	December-2002	34	67	0.84	12	11	20	0.2 U	3.4	0.4 U	11
MW-04-01WT	August-2004	6	612	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	12
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-01D	August-2004	2 U	1,730	0.5 U	11	5	3 U	0.2 U	5 U	0.5 U	11
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-02WT	August-2004	2	1,390	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-02D	August-2004	8	1,110	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-03WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-03D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-04WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-04D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-05WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-05D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-06WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-06D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-07WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-07D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-08WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-08D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-09WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-09D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-10WT	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-10D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-04-11	December-2004	-	-	-	-	-	-	-	-	-	-
MW-97-101WT	August-2004	18	1,380	0.5 U	5	5 U	3 U	0.2 U	5 U	0.5 U	9
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-97-102WT	December-2002	9.8	100	0.76	0.95	13	69	0.2 U	1.6 U	0.4 U	13
	August-2004	7	117	0.5 U	5 U	5 U	65	0.2 U	5 U	0.5 U	5 U
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-97-103WT	December-2002	12	1,500	0.22	0.69	2.8	2	0.2 U	1.6 U	0.4 U	51
MW-97-103S1	December-2002	11	180	0.2 U	0.92	8.4	2.5	0.2 U	3.2	0.4 U	73
MW-98-114WT	December-2002	33	320	0.2 U	0.72	1.7	0.4 U	0.2 U	1.6 U	0.4 U	15
	August-2004	19	104	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
MW-98-115WT	August-2004	61	178	0.5 U	11	5 U	3 U	0.2 U	5 U	0.5 U	8
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-98-116WT	December-2002	8	3,400	0.94	1.3	40	9.4	0.2 U	1.6 U	0.4 U	32
MW-98-117WT	December-2002	1 U	29	0.2 U	8.5	4.1	0.64	0.2 U	1.6 U	0.4 U	6 U
MW-142WT	June-2001	1.8	1,000	0.29	0.6 U	4.8	0.4 U	0.2 U	1.4 U	0.4 U	61
	December-2002	1.9	8,600	0.23	4	17	2	0.2 U	1.6 U	0.4 U	360
	August-2004	8	19,500	0.5 U	7	12	3 U	0.2 U	5 U	0.5 U	50
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-142D	June-2001	4.2	9,000	0.2 U	5	9.2	0.4 U	0.2 U	3.5	1.1	230
	December-2002	1.8	2,800	0.2 U	2.8	5.4	0.98	0.2 U	1.6 U	0.4 U	100
	August-2004	2 U	10,000	0.5 U	8	6	3 U	0.2 U	5 U	0.5 U	6
	December-2004	-	-	-	-	-	-	-	-	-	-

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Delphi Former Plant 2
Saginaw, Michigan

	Compound Detected:	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
	FAV:	680	10,036	35	3,327	92	736	2.8	120	1.1	710
	GSI Criterion:	150	674	3	103	13	16	0.0013	5	0.2	167
MW-154WT	June-2001	3.1	190	0.39	0.6 U	7.3	0.56	0.2 U	1.4 U	0.4 U	30
	December-2002	5.2	230	0.2 U	2	3.3	3.9	0.2 U	1.6 U	0.4 U	93
MW-155WT	December-2002	5.5	47	0.2 U	0.87	2.4	1.2	0.2 U	1.6 U	0.4 U	7.7
MW-156WT	June-2001	28	88	0.2 U	0.6 U	3.4	0.4 U	0.2 U	1.4 U	0.4 U	22
	December-2002	43	73	0.2 U	1.1	6.7	1.1	0.2 U	1.6 U	0.4 U	22
MW-166WT	June-2001	86	180	1.9	8.9	25	15	0.2 U	1.9	0.4 U	49
MW-167WT	December-2002	4.6	110	0.2 U	0.6 U	2	0.48	0.2 U	1.6 U	0.4 U	18
MW-200S	June-2001	24	71	0.2 U	0.6 U	4.2	0.4 U	0.2 U	1.4 U	0.4 U	10
	December-2002	53	120	0.2 U	0.79	2.5	0.42	0.2 U	1.6 U	0.4 U	12
	August-2004	32	93	0.5 U	5	5 U	3 U	0.2 U	5 U	0.5 U	8
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-200D	December-2004	-	-	-	-	-	-	-	-	-	-
MW-201S	June-2001	1.8	160	0.2 U	0.6 U	8	0.4 U	0.2 U	1.4 U	0.4 U	35
	December-2002	27	190	0.2 U	0.97	2.9	1.7	0.2 U	1.6 U	0.4 U	11
	August-2004	36	114	0.5 U	7	5 U	3 U	0.2 U	5 U	0.5 U	10
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-201D	August-2004	3	70	0.5 U	7	5 U	3 U	0.2 U	5 U	0.5 U	19
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-202S	June-2001	20	150	0.2 U	0.6 U	8.1	0.4 U	0.2 U	1.4 U	0.4 U	20
	December-2002	8.1	130	1.1	0.6 U	2.5	0.4 U	0.2 U	2.9	0.4 U	23
	August-2004	5	93	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	31
MW-202D	June-2001	2.4	600	0.2 U	5.1	57	4.5	0.2 U	2.9	0.4 U	93
	December-2002	8.8	220	0.2 U	0.6 U	1.2	0.4 U	0.2 U	1.6 U	0.4 U	15
	August-2004	3	15	0.5 U	5 U	5	3	0.2 U	5 U	0.5 U	19
MW-203S	June-2001	2.1	210	0.2 U	0.62	9	0.4 U	0.2 U	1.4 U	0.4 U	32
	July-2001	330 U	1,700 U	170 U	2,800	4,300	1,700 U	20 U	330 U	670 U	4,100
MW-203D	June-2001	1 U	870	0.2 U	0.6 U	13	0.4 U	0.2 U	1.4 U	0.4 U	250
PZ-4	August-2004	33	125	2.5	8	5 U	9	0.2 U	5 U	0.5 U	2,670
PZ-5	August-2004	17	281	5.2	29	55	29	0.2 U	5 U	0.5 U	12,300
	December-2004	-	-	-	-	-	-	-	-	-	-
PZ-7	August-2004	2	94	0.5 U	19	11	3	0.2 U	5 U	0.5 U	24,200
	December-2004	-	-	-	-	-	-	-	-	-	-
PZ-9	August-2004	2	177	0.7	5 U	5 U	5	0.2 U	5 U	0.5 U	3,730
	December-2004	-	-	-	-	-	-	-	-	-	-
PZ-24	August-2004	15	145	0.5 U	10	7	3 U	0.2 U	5 U	0.5 U	7,010
PZ-36	June-2001	4.5	240	2.4	1.8	19	4.1	0.2 U	1.4 U	0.4 U	23
	December-2002	6.8	320	4	4.8	14	5.1	0.2 U	1.6 U	0.4 U	28
	August-2004	4	406	84	8	15	10	0.2 U	5 U	0.5 U	298
	December-2004	-	-	-	-	-	-	-	-	-	-
PZ-37	June-2001	7.6	81	0.32	0.6 U	17	6.8	0.2 U	1.4 U	0.4 U	23
PZ-38	June-2001	6	70	0.22	0.6 U	5.6	0.8	0.2 U	1.4 U	0.4 U	14
	August-2004	12	34	0.5 U	5 U	6	6	0.2 U	5 U	0.5 U	5 U
PZ-39	June-2001	100	210	0.2 U	1.1	8.4	0.4 U	0.2 U	1.7	0.49	33
	August-2004	78	220	0.7	14	5 U	3	0.2 U	5 U	0.5 U	9
PZ-40	August-2004	23	97	0.5 U	9	5 U	3 U	0.2 U	5 U	0.5 U	5 U
PZ-44	August-2004	5	75	1.1	6	5 U	3 U	0.2 U	5 U	0.5 U	61
PZ-48	August-2004	4	50	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U

Compounds shown are those detected with a GSI criterion or FAV.
Concentrations reported in micrograms per liter (ug/L).
U - The analyte was not detected above the indicated reporting limit.
Detected results are bolded.
Results that exceed GSI criteria are boxed and bolded.
Results that exceed GSI criteria and FAVs are boxed, bolded, and shaded.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - MDEQ Part 201 Groundwater/Surface Water Interface Cleanup Criteria (December 2004)
- Not analyzed

Table 5: Historical Groundwater Analytical Data - Offsite Wells
Delphi Former Plant 2
Saginaw, Michigan

	Compound Detected:	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	VC	1,1,1-TCA	1,1-DCA	CA	Benzene	Toluene	Ethylbenzene	o-Xylene	p,m-Xylene	Naphthalene	1,2,4-TMB	1,3,5-TMB	CB	1,2-DCB	1,4-DCB
	FAV:	3,500	11,000	28,000	2,300	17,000	1,600	13,000	20,000	1,800	1,700	320	630	630	200	310	810	850	240	200
	GSI Criterion:	200	620	1,500	65	15	200	360	ID	200	140	18	35	35	13	17	45	47	16	13
Offsite Monitoring Wells	**Sample Date**																			
B-2 BAUG	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
B-2R	June-2001	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	December-2002	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW97-104WT	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U *	5 U	1 U	1 U	1 U	1 U	1 U
	September-2004	**0.59 J**	**0.43 J**	**0.29 J**	-	**3.1**	-	1 U	1 U	**4.9**	1 U	1 U	-	**3.1** *	20 U	-	-	**6**	40 U	40 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	**5**	1 U	1 U	1 U	2 U	5 U	1 U	1 U	**6**	1 U	**3**
MW97-104S1	August-2004	20 U	**1,990**	20 U	20 U	**1,550**	20 U	20 U	100 U	20 U	20 U	20 U	20 U	40 U	5 U	20 U	20 U	**300**	**30**	**20**
	September-2004	110 U	**2,400**	110 U	-	**1,900**	-	110 U	110 U	110 U	110 U	110 U	-	220 U *	5 U	-	-	**220**	**17**	**13**
	December-2004	100 U	**2,600**	100 U	100 U	**2,300**	100 U	100 U	500 U	100 U	100 U	100 U	100 U	200 U	500 U	100 U	100 U	**200**	100 U	100 U
MW97-105WT	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	**0.73 J**	**1.2**	**0.45 J**	1 U	-	**2.9** *	5 U	-	-	1 U	10 U	10 U
MW97-105S1	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	**1.7**	**0.25 J**	**0.32 J**	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
TW98-108WT	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	**0.34 J**	1 U	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
MW98-108S1	September-2004	200 U	**5,200**	200 U	-	**5,000**	-	200 U	200 U	200 U	200 U	200 U	-	400 U *	5 U	-	-	**0.96 J**	10 U	10 U
TW98-109WT	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	**0.34 J**	1 U	1 U	-	2 U *	20 U	-	-	**0.96 J**	10 U	10 U
	December-2004	50 U	**1,760**	50 U	50 U	**6,880**	50 U	50 U	300 U	50 U	50 U	50 U	50 U	100 U	300 U	50 U	50 U	**90**	50 U	50 U
MW98-109S1	September-2004	50 U	**180**	50 U	-	**2,100**	-	50 U	50 U	50 U	**12 J**	50 U	-	100 U *	5 U	-	-	**79**	10 U	10 U
	December-2004	1 U	**1**	1 U	1 U	**63**	1 U	1 U	5 U	**9**	**1**	1 U	1 U	2 U	5 U	1 U	1 U	**63**	1 U	**5**
TW98-110WT	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	1 U	1 U	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW98-110S1	August-2004	100 U	**12,400**	100 U	100 U	**1,200**	100 U	100 U	500 U	100 U	100 U	100 U	100 U	200 U	5 U	100 U	100 U	100 U	100 U	100 U
	September-2004	420 U	**13,000**	**110 J**	-	**1,400**	-	420 U	420 U	420 U	420 U	420 U	-	830 U *	5 U	-	-	420 U	10 U	10 U
	December-2004	100 U	**8,100**	100 U	100 U	**1,700**	100 U	100 U	500 U	100 U	100 U	100 U	100 U	200 U	500 U	100 U	100 U	100 U	100 U	100 U
TW98-111WT	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	**16**	**2**	**52**	**58**	**120**	**8**	**36**	**12**	**15**	1 U	1 U
	September-2004	2 U	2 U	2 U	-	**0.88 J**	-	2 U	2 U	**13 B**	**1.7 J**	**44**	-	**150**	**5.7 J**	-	-	**9.5**	50 U	50 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	**15**	**3**	**51**	**52**	**110**	**13**	**36**	**12**	**11**	1 U	1 U
MW98-111S1	August-2004	50 U	**130**	50 U	50 U	50 U	50 U	50 U	300 U	**100**	**710**	**1,690**	**970**	**3,900**	**77**	**460**	**70**	**300**	50 U	50 U
	September-2004	83 U	83 U	83 U	-	83 U	-	83 U	83 U	**95**	**810**	**1,700**	-	**5,400**	**88**	-	-	**200**	40 U	40 U
	December-2004	30 U	30 U	30 U	30 U	30 U	30 U	30 U	100 U	**90**	**530**	**1,860**	**1,460**	**4,290**	**200**	**510**	**90**	**230**	30 U	30 U
MW01-118WT	September-2004	2.9 U	2.9 U	2.9 U	-	2.9 U	-	2.9 U	2.9 U	**5.6**	2.9 U	2.9 U	-	**8.5** *	20 U	-	-	**82**	40 U	40 U
	December-2004	1 U	**4**	1 U	1 U	**27**	1 U	1 U	5 U	**2**	1 U	**2**	**1**	**3**	5 U	1 U	1 U	**43**	1 U	1 U
MW04-118S1	September-2004	170 U	**1,700**	170 U	-	**8,000**	-	170 U	170 U	170 U	**38 J**	**110 J**	-	**500** *	20 U	-	-	**140 J**	**19 J**	40 U
	December-2004	50 U	**850**	50 U	50 U	**8,250**	1 U	50 U	300 U	50 U	**60**	**190**	50 U	100 U	300 U	50 U	50 U	**190**	**60**	50 U
MW04-119WT	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	**0.25 J**	1 U	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
MW01-119S1	August-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	1 U	1 U	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
MW04-121WT	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	**0.26 J**	1 U	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
MW04-121S1	September-2004	1 U	1 U	1 U	-	1 U	-	1 U	1 U	**1.7**	**0.41 J**	1 U	-	2 U *	20 U	-	-	1 U	40 U	40 U
MW04-122WT	September-2004	22 U	**540**	**3.46**	-	**480**	-	22 U	22 U	**13 J**	**6.6 J**	**22**	-	**44** *	50 U	-	-	**65**	100 U	100 U
	December-2004	1 U	**162**	**1**	1 U	**226**	1 U	1 U	5 U	**17**	**6**	**42**	**10**	**71**	5 U	**6**	1 U	**82**	**1**	**2**
MW04-122S1	September-2004	500 U	**6,900**	500 U	-	**13,000**	-	500 U	500 U	500 U	**240 J**	**700**	-	**1,400** *	**9.0 J**	-	-	500 U	40 U	40 U
	December-2004	100 U	**2,100**	100 U	100 U	**6,500**	100 U	100 U	500 U	100 U	**200**	**400**	**100**	**700**	500 U	100 U	100 U	**100**	100 U	100 U
MW04-123WT	September-2004	6.7 U	**110**	6.7 U	-	**230**	-	6.7 U	6.7 U	**2.7 J**	**1.3 J**	6.7 U	-	**13** *	5 U	-	-	**21**	10 U	10 U
	December-2004	50 U	**1,780**	50 U	50 U	**7,350**	50 U	50 U	300 U	50 U	50 U	50 U	50 U	100 U	300 U	50 U	50 U	200 U	50 U	200 U
MW04-123S1	September-2004	830 U	**9,400**	830 U	-	**27,000**	-	830 U	830 U	830 U	830 U	830 U	-	1,700 U *	5 U	-	-	830 U	10 U	10 U
	December-2004	200 U	**10,500**	200 U	200 U	**30,600**	200 U	200 U	1000 U	200 U	200 U	200 U	200 U	400 U	1,000 U	200 U	200 U	50 U	200 U	50 U
MW04-124WT	September-2004	1 U	1 U	1 U	-	**0.27 J**	-	1 U	**0.60 J**	**0.24 J**	**0.50 J**	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
	December-2004	1 U	**2**	1 U	1 U	**6**	1 U	1 U	5 U	1 U	1 U	**1**	1 U	**2**	5 U	1 U	1 U	**1**	1 U	1 U
MW04-124S1	September-2004	1 U	**0.47 J**	1 U	-	**16**	-	1 U	**0.77 J**	1 U	**0.51 J**	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
	December-2004	1 U	1 U	1 U	1 U	**12**	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-129WT	August-2004	1 U	**1**	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
	September-2004	1 U	**1.1**	1 U	-	**0.59 J**	-	1 U	1 U	1 U	1 U	1 U	-	2 U *	5 U	-	-	1 U	10 U	10 U
	December-2004	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	2 U	5 U	1 U	1 U	1 U	1 U	1 U
MW-144WT	September-2004	1 U	1 U	1 U	-	1 U	-	**0.22 J**	**5.7**	**0.37 J**	**0.27 J**	1 U	-	2 U *	12 U	-	-	1 U	25 U	25 U

Compounds shown are those detected with a GSI criterion or FAV.
Concentrations reported in micrograms per liter (ug/L).
U - The analyte was not detected above the indicated reporting limit.
B - (Inorganic) The analyte has been postively identified. The concentration is between the instrument detection limit and the required reporting limit.
J - The analyte was positively identified; however, the value is estimated.
Detected results are bolded.
Results that exceed GSI criteria are boxed and bolded.
Results that exceed GSI criteria and FAVs are boxed, bolded, and shaded.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - MDEQ Part 201 Groundwater/Surface Water Interface Cleanup Criteria (December 2004)
* Results based on total xylene analysis.
- Not analyzed or not reported
September 2004 data collected and reported by REALM, Inc.

TCE	Trichloroethene
cis-1,2-DCE	cis-1,2-Dichloroethene
trans-1,2-DCE	trans-1,2-Dichloroethene
1,1-DCE	1,1-Dichloroethene
VC	Vinyl Chloride
1,1,1-TCA	1,1,1-Trichloroethane
1,1-DCA	1,1,-Dichloroethane
CA	Chloroethane
CB	Chlorobenzene
1,2,4-TMB	1,2,4-Trimethylbenzene
1,3,5-TMB	1,3,5-Trimethylbenzene
1,2-DCB	1,2-Dichlorobenzene
1,4-DCB	1,4-Dichlorobenzene

Table 5: Historical Groundwater Analytical Data - Offsite Wells
Delphi Former Plant 2
Saginaw, Michigan

Compound Detected:		Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
FAV:		680	10,036	35	3,327	92	736	2.8	120	1.1	710
GSI Criterion:		150	674	3	103	13	16	0.0013	5	0.2	167
Offsite Monitoring Wells	**Sample Date**										
B-2 BAUG	June-2001	6.7	200	0.2 U	3.8	9	0.4 U	0.2 U	18	0.4 U	21
	December-2002	4.9	200	0.2 U	0.6 U	1.7	0.4 U	0.2 U	6.1	0.4 U	11
	August-2004	7	163	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
B-2R	June-2001	1 U	100	0.2 U	0.6 U	3.1	0.4 U	0.2 U	1.4 U	0.4 U	31
	December-2002	1.3	94	0.2 U	0.6 U	2.5	1.2	0.2 U	1.6 U	0.4 U	110
	August-2004	4	63	0.7	6	11	3 U	0.2 U	5 U	0.5 U	63
MW97-104WT	August-2004	2 U	768	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	0.72 B	675	0.5 U	2 U	2 UJ	1 U	-	2.3	-	16.9 J
	December-2004	-	-	-	-	-	-	-	-	-	-
MW97-104S1	August-2004	2 U	1,070	0.5 U	5	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	0.83 B	821 J	0.5 U	2 U	0.33 B	1 U	-	2.1	-	19.4
	December-2004	-	-	-	-	-	-	-	-	-	-
MW97-105WT	September-2004	8.8	559	0.5 U	0.90 B	1.1 BJ	1	-	11.6/8.0**	-	26.3
MW97-105S1	September-2004	4.5	264	0.5 U	0.89 B	0.48 BJ	1 U	-	13.6/9.4**	-	12.8
TW98-108WT	September-2004	3.4	511 J	0.5 U	2 U	2 U	1 U	-	1.3 B	-	13.4
MW98-108S1	September-2004	0.98 B	220 J	0.5 U	2 U	2 U	1 U	-	1.5 B	-	10 U
TW98-109WT	September-2004	1.5 B	469 J	0.5 U	0.62 B	2 U	1 U	-	3.3	-	12.3
	December-2004	-	-	-	-	-	-	-	-	-	-
MW98-109S1	September-2004	1.6 B	321 J	0.5 U	2 U	2 U	1 U	-	1.4 B	-	5.5 B
	December-2004	-	-	-	-	-	-	-	-	-	-
TW98-110WT	August-2004	3	311	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	2.8	272	0.080 B	0.84 B	2 U	1 U	-	2.1	-	14
	December-2004	-	-	-	-	-	-	-	-	-	-
MW98-110S1	August-2004	2 U	266	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	3.6	282	0.5 U	2 U	2 U	1 U	-	4.8	-	6.0 B
	December-2004	-	-	-	-	-	-	-	-	-	-
TW98-111WT	August-2004	3	740	0.5 U	5 U	6	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	3.4	709	0.5 U	1.3 B	4.0 J	0.59 B	-	1.9 B	-	17.6
	December-2004	-	-	-	-	-	-	-	-	-	-
MW98-111S1	August-2004	3	5,580	0.5 U	16	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	1.6 B	4,740	0.5 U	0.87 B	2 U	1 U	-	1.4 B	-	116
	December-2004	-	-	-	-	-	-	-	-	-	-
MW01-118WT	September-2004	-	-	-	-	-	-	-	-	-	-
	December-2004	22	90.4 J	0.5 U	2 U	0.33 B	3.5	-	1.1 B	-	5.9 B
MW04-118S1	September-2004	3.7	920 J	0.5 U	2 U	0.75 B	0.24 B	-	2 U	-	28.4
	December-2004	-	-	-	-	-	-	-	-	-	-
MW04-119WT	September-2004	4.5	307	0.5 U	1.5 B	3.9	2.8	-	15.5/10.6**	-	13.6
MW01-119S1	August-2004	2	1,030	0.5 U	5 U	5 U	3 U	0.2 U	5 U	0.5 U	5 U
	September-2004	4.1	1,340	0.5 U	2 U	0.37 B	1 U	-	13.8/15.9**	-	35.5
MW04-121WT	September-2004	3	60.3	0.5 U	2 U	2 U	1 U	-	8.2/8.8**	-	10 U
MW04-121S1	September-2004	6.3	353	0.5 U	0.57 B	0.48 B	0.30 B	-	17.1/16.2**	-	13.8
MW04-122WT	September-2004	11.6	315	0.5 U	0.96 B	1.5 B	0.49 B	-	0.95 B	-	8.5 B
	December-2004	-	-	-	-	-	-	-	-	-	-
MW04-122S1	September-2004	2.5	771	0.5 U	0.76 B	0.73 B	1.3	-	2 U	-	26.4
	December-2004	-	-	-	-	-	-	-	-	-	-
MW04-123WT	September-2004	6.5	132 J	0.5 U	2 U	0.59 B	1 U	-	0.95 B	-	9.2 B
	December-2004	-	-	-	-	-	-	-	-	-	-
MW04-123S1	September-2004	3.3	356 J	0.5 U	2 U	0.71 B	0.39 B	-	0.90 B	-	10.6
	December-2004	-	-	-	-	-	-	-	-	-	-
MW04-124WT	September-2004	7.9 J	229	0.5 U	0.19 B	0.32 J	1 U	-	9.7/5.1**	-	16.7 J
	December-2004	-	-	-	-	-	-	-	-	-	-
MW04-124S1	September-2004	8.1	198 J	0.5 U	2 U	2 U	1 U	-	6.3/3.3 **	-	7.7 B
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-129WT	August-2004	39	985	2	50	86	92	0.2 U	6	0.5 U	109
	September-2004	39	131	0.5 U	0.27 B	2 U	1 U	-	2.3	-	4.1 B
	December-2004	-	-	-	-	-	-	-	-	-	-
MW-144WT	September-2004	8.3	111	0.5 U	0.28 B	0.35 B	1 U	-	12/7.8**	-	10 U

Compounds shown are those detected with a GSI criterion or FAV.
Concentrations reported in micrograms per liter (ug/L).
U - The analyte was not detected above the indicated reporting limit.
B - (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.
J - The analyte was positively identified; however, the value is estimated.
Detected results are bolded.
Results that exceed GSI criteria are boxed and bolded.
Results that exceed GSI criteria and FAVs are boxed, bolded, and shaded.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - MDEQ Part 201 Groundwater/Surface Water Interface Cleanup Criteria (December 2004)
* Results based on total xylene analysis.
- Not analyzed or not reported
September 2004 data collected and reported by REALM, Inc. **The second selenium value represents a subsequent REALM sampling round for selenium.

Table 6. December 2004 Groundwater Analytical Results General Water Quality Parameters
Delphi Former Plant 2
Saginaw, Michigan

	GSI	FAV	MW-04-01WT 12/15/2004	MW-04-01D 12/15/2004	MW-04-11 12/15/2004	MW-200S 12/15/2004	MW-200D 12/15/2004	MW-201S 12/15/2004	MW-201D 12/15/2004	MW201D Duplicate	MW-97-102WT 12/15/2004
Hydroxide as CaCO3	NC	NC	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Carbonate Alkalinity	NC	NC	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Alkalinity as CaCO3	NC	NC	371	309	465	557	527	511	732	713	573
Bicarbonate Alkalinity	NC	NC	371	309	465	557	527	511	732	713	573
Ammonia-N	NC	NC	4.5	4.1	0.1 U	0.9	0.4	1.0	0.8	0.8	6.5
un-ionized Ammonia*	0.053	0.42	0.18	0.164		0.036	0.016	0.04	0.032	0.032	0.26
Nitrate-N	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Nitrite-N	NC	NC	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloride	NC	NC	342	4100	114	368	236	201	431	433	63
Sulfate	NC	NC	22	13	25	25	38	33	19	17	20
Total Phosphorus	1	NC	0.21	0.02	0.02 U	0.41	0.10	0.25	0.17	0.14	0.37
Total Dissolved Solids	500	NC	990	7403	676	1141	963	896	1545	1552	768
Calcium	NC	NC	62.1	620	145	157	118	150	184	182	27.7
Iron	NC	NC	2.22	27.1	2.72	7.71	3.84	9.61	14.1	18.0	0.83
Magnesium	NC	NC	22.9	160	44.7	31.0	23.1	29.2	49.9	47.8	12.2
Potassium	NC	NC	39.4	6.1	4.42	10.8	10.1	11.8	1.51	1.65	28.0
Sodium	NC	NC	259	1810	63.4	290	247	155	351	339	247
Dissolved Oxygen**	5	NC	2.18	2.25	1.25	NA	NA	1.97	1.33	1.33	1.90

Concentrations reported in milligrams per liter (mg/L).
U - The analyte was not detected above the indicated reporting limit.
FAV - Final Acute Value, Rule 57 Water Quality Values (MDEQ Table, November 2004)
GSI - Groundwater/surface water interface cleanup criteria (MDEQ Part 201, December 2004)
NC - No criterion
NA - Not Available
Results that exceed the GSI criterion are boxed and bolded (dissolved oxygen criterion represents a minimum value that results must exceed).
* Calculated; un-ionized ammonia concentration is 4% of the ammonia concentration reported by the laboratory (assumes site-specifc pH of 8 and an estimated average temperature of ~70 degrees). GSI and FAV are for warm surface water.
**Measured in the field through a closed cell during groundwater sampling.