ARCADIS BBL
Infrastructure, environment, facilities

ARCADIS of New York, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse
New York 13214-0066
Tel 315.446.9120
Fax 315.449.0017
www.arcadis-us.com

Mr. Allan Brouillet
Environmental Response Division
Michigan Department of Environmental Quality
Saginaw Bay District
503 North Euclid Street
Bay City, MI 48706

INDUSTRIAL

Subject:
Annual Progress Report – October 2006 through September 2007
General Motors Corporation Saginaw Malleable Iron Plant Property and
REALM, Inc. Green Point Landfill and Drum Remediation Area
Saginaw, Michigan

Date:
October 12, 2007

Contact:
Lisa Coffey

Phone:
315.671.9164

Email:
lisa.coffey@
arcadis-us.com

Our ref:
B0027608

Dear Mr. Brouillet:

This progress report presents a summary of the work activities conducted during the period of October 2006 through September 2007 for the above-referenced Site, and a summary of the work activities anticipated for the following 12 months. This report was prepared in accordance with the requirements specified in the Consent Judgment executed between the Michigan Department of Environmental Quality (MDEQ), the Michigan Attorney General's Office, General Motors Corporation (GM), and Waste Management Inc. (WMI), which was entered by the State of Michigan Circuit Court on March 16, 1998. An October 15 submittal date for the annual reports was established by the MDEQ in a letter dated October 22, 1999 (Brouillet, A., October 1999).

Significant RI/FS/RAP Activities and Correspondence

The following is a summary of significant Remedial Investigation/Feasibility Study/Remedial Action Plan (RI/FS/RAP) activities and correspondence for the period from October 1, 2006 through September 30, 2007.

Deliverables Submitted

All deliverables have been submitted to the MDEQ on or before the deliverable due dates specified in the MDEQ-approved October 1997 *RI/FS Work Plan* (schedule tables revised January 1998).

- The annual progress report for October 2005 through September 2006 was submitted to the MDEQ on October 13, 2006 (BBL, October 2006b).

- A proposed Work Plan for Additional Site Investigation, dated October 31, 2006, was submitted to the MDEQ (BBL, October 2006c). The Work Plan describes additional field investigation activities proposed to support development of the final RAP, in response to the MDEQ's May 18, 2006 RAP review comment letter.

- Monthly reports have been transmitted to the MDEQ on or before the 15th of each month, as specified in the RI/FS Work Plan (see references).

- Semi-annual monitoring reports for the former underground storage tank (UST) #7 area, dated October 31, 2007, and May 10, 2007, were submitted to the MDEQ.

- A revised Work Plan for Additional Site Investigation, dated July 24, 2007, was submitted to the MDEQ. The Work Plan was presented in a letter to Ms. Brenda Brouillet (MDEQ) from Ms. Lisa Coffey (ARCADIS BBL), submitted on behalf of GM and WMI. This revised work plan was submitted to address issues relative to the original proposed Work Plan discussed with MDEQ during a conference call on February 22, 2007.

- The Environmental Monitoring Program Annual Report for the Green Point Landfill, dated July 25, 2007, was submitted to the MDEQ. In addition to the sampling program defined in the January 1998 Environmental Monitoring Plan for the Green Point Landfill, data for several additional monitoring points and analytes were included in the report. The additional data were collected in response to MDEQ's request for additional data to facilitate approval of the Site RAP, as discussed in MDEQ's May 18, 2006 RAP review comment letter.

Meetings

- No project meetings were held during the time period covered by this report. However, GM and CRA met with MDEQ (Susan Kaelber-Matlock) and U.S. EPA (Allen Debus and Hak Cho) at the Site on April 2, 2007 to discuss the Current Human Exposure Environmental Indicators (EIs) for the Site. Note that the RCRA Corrective Action EI for Current Human Exposures Under Control (CA 725) was approved by U.S. EPA in September 2007.

Key Correspondence and Communications

- An electronic mail (e-mail) dated November 21, 2006, was sent from Ms. Susan Kaelber-Matlock (MDEQ) to Ms. Cheryl Hiatt (GM) and Mr. Kent Bainbridge (WMI), that provided a preliminary response to several components of the October 31, 2006 Work Plan. This response was provided in order to facilitate completion of some field activities prior to the end of the year. The email requested that two additional wells be installed at each of the two proposed drilling locations along the Saginaw River east of the Green Point Landfill if the deep sand unit is greater than 12 feet thick. The email also requested that samples from the existing deep wells be analyzed for polychlorinated biphenyls (PCBs) and semi-volatile organic compounds (SVOCs), and indicated that three rounds of characterization sampling was acceptable.

- An e-mail dated December 8, 2006, was sent from Ms. Lisa Coffey (ARCADIS BBL) to Ms. Susan Kaelber-Matlock (MDEQ) on behalf of GM, indicating that the annual Green Point Landfill Groundwater Sampling event would be initiated the week of December 11, 2006.

- An e-mail dated December 8, 2006, was sent from Ms. Susan Kaelber-Matlock (MDEQ) to Ms. Cheryl Hiatt (GM) and Ms. Lisa Coffey (BBL), acknowledging the sampling notification and also acknowledging that well installation and groundwater sampling along the Saginaw River berm would be delayed until 2007 pending Work Plan approval and suitable weather conditions.

- An e-mail dated December 18, 2006, was sent from Ms. Susan Kaelber-Matlock (MDEQ) to Ms. Cheryl Hiatt (GM), providing a preliminary response to the portion of the October 31, 2006 proposed Work Plan that dealt with additional soil sampling northwest of the former railyard area. The e-mail requested discussion of this topic prior to MDEQ-preparation of a formal response to the proposed Work Plan.

- An e-mail dated December 18, 2006, was sent from Ms. Susan Kaelber-Matlock (MDEQ) to members of the project team [Cheryl Hiatt (GM), Kent Bainbridge (WMI), Renee Mietz (GM SMI), David Lipson (ARCADIS BBL), Lisa Coffey (ARCADIS BBL), and Allan Brouillet (MDEQ)] that acknowledged receipt of the Semi-Annual Groundwater Monitoring Report for the Former UST #7 Area, dated October 31, 2006. The e-mail also indicated agreement with the revisions

proposed to the sampling program by GM, consisting of removal of monitoring wells BBL-MW-4, MW135-WT, and MW-139WT from the monitoring program.

- On February 22, 2007, a conference call was held between Mr. Allan Brouillet and Ms. Susan Kaelber-Matlock (MDEQ), Ms. Cheryl Hiatt (GM), Mr. Kent Bainbridge (WMI), and Ms. Lisa Coffey (ARCADIS BBL). During the call, the proposed October 31, 2006, Work Plan submitted for the Site was discussed. As a result of this discussion, the parties agreed that the work plan would be rescinded, and a revised work plan would be prepared. Note that agreement was not reached on several discussion items, including the number of monitoring wells to be installed east of the Green Point Landfill, and the scope, or need for, a supplemental soil-sampling program to delineate manganese in the railyard.

- A letter dated March 16, 2007, was sent from Ms. Cheryl Hiatt (GM) to Ms. Brenda Brouillet (MDEQ) to formally rescind the proposed October 31, 2006 Work Plan. The letter also indicated that a revised Work Plan would be prepared to address MDEQ's concerns that were clarified during the February 22, 2007 conference call, taking into account the most recent Green Point Landfill sampling data.

- A letter dated March 27, 2007, was sent from Ms. Susan Kaelber-Matlock (MDEQ) to Ms. Cheryl Hiatt (GM) that concurred with the decision to rescind the proposed October 31, 2006 Work Plan, and requested that a revised Work Plan be submitted by September 16, 2007.

- A conference call was held on June 20, 2007, between Sue Kaelber-Matlock (MDEQ), Allan Brouillet (MDEQ), Cheryl Hiatt (GM), Ed Peterson (GM), Kent Bainbridge (WMI), and Lisa Coffey (ARCADIS BBL) to finalize the scope of work and approach to be presented in the revised Work Plan for Additional Site Investigation being prepared to address and resolve the issues discussed during the February 22, 2007 conference call regarding the original proposed Work Plan dated October 31, 2007.

- An email was sent from Ms. Cheryl Hiatt (GM) to Ms Susan Kaelber-Matlock (MDEQ) on June 21, 2007, stating agreement to install two wells within the lower sand unit at two locations east of the Green Point Landfill if the lower sand unit was found to be greater than 12 feet thick. This email was acknowledged and the well installation approved by Sue Kaelber-Matlock in an email dated June 22, 2007. This e-mail resolved the remaining point of disagreement raised during the

February 22, 2007 conference call regarding the Work Plan for Additional Site Investigation.

Supplemental RI/FS Sampling Activities

Former Underground Storage Tank (UST) #7 Area

- Groundwater samples were collected from eight monitoring wells in the former UST #7 area in February 2007. The samples were collected as part of an ongoing monitored natural attenuation program, and were analyzed for benzene, toluene, ethylbenzene, xylene, sulfate, and dissolved lead. Table 1 presents an updated summary of the analytical data collected in the UST #7 area.

Saginaw River Berm Area

- Three monitoring wells that had been damaged beyond repair (X-4CAUG, MW-114S4, and MW-5B) were abandoned. The *Monitoring Well Abandonment Records* for these wells are attached.

- Three monitoring wells were constructed east of the Green Point Landfill, near the Saginaw River as proposed in the July 24, 2007, Work Plan, and approved in a June 22, 2007 e-mail from Ms. Susan Kaelber-Matlock (MDEQ). Monitoring well X-4CAUGR (replacement) was installed to replace X-4CAUG, which had been damaged beyond repair. In addition, two new monitoring wells (X-4D and X-9D) were installed within the lower sand unit at the existing monitoring well cluster locations X-4 and X-9. The thickness of the lower sand unit at each of the two locations was less than 12 feet. For this reason, one monitoring well was installed at each location in accordance with the June 22, 2007 agreement with MDEQ. The monitoring wells were developed in August 2007. The monitoring well boring logs are attached.

Quench Pit LNAPL Recovery Program

- The automated skimmer pump that was installed in the Quench Pit Area (monitoring well QPTW-3) operated during the majority of the October 2006 through September 2007 time period, recovering approximately 380 gallons of LNAPL during the year. Since the system was installed on February 8, 2002, a total of approximately 2,420 gallons of LNAPL have been recovered by the system through the end of September 2007.

LNAPL Recovery System

- The LNAPL recovery system located south of the plant building recovered approximately 70 gallons of LNAPL and over 191,600 gallons of groundwater during the past year.

The cumulative LNAPL recovery and groundwater treatment statistics are as follows:

Operation	Approximate Volume of Oil Recovered (Gallons)[1]	Approximate Volume of Groundwater Treated (Gallons)
LNAPL System Total through September 19, 2007	3,749	3,024,186
Total Hand Bailed – July 2002 through February 2003	21	0
Water/LNAPL Pumped from Reverse Siphon of 42-inch Sewer Line – Total through August 23, 2006[2]	60+	450
Total hand bailed in 1996 and 1997	710	0
LNAPL/water recovered during repair of 42-inch Storm Sewer Line (recovery from abandoned 30-inch line)	5,000+	Specific amount unknown
LNAPL/water recovered during repair (slip lining) of 42-inch storm sewer line	Approximately 3,000+	Specific amount unknown
Totals:	12,520+	3,024,186

Notes:

[1] This total includes some water that is drawn into the LNAPL recovery lines when the water table fluctuates rapidly, and water that was included in an LNAPL/water mixture recovered during repair of the 42-inch storm sewer line.

[2] Note that in a number of instances, LNAPL removed from the inverted siphon by plant personnel has been included in the LNAPL system recovery total.

- Groundwater and LNAPL elevation measurements are made on a monthly basis in the vicinity of the LNAPL recovery system to monitor LNAPL distribution during system operation. Table 2 includes the LNAPL and groundwater measurement data.

Green Point Landfill

- Post-closure inspections of the Green Point Landfill cap were completed on October 10, 2006 and May 8, 2007. The Post-Closure Cap Inspection Forms were submitted with the corresponding monthly reports.

- Groundwater Samples were collected from 25 monitoring wells in the vicinity of the Green Point Landfill in December 2006. In addition to the sampling program defined in the Environmental Monitoring Plan for the Green Point Landfill, dated January 1998, several monitoring points and analytes were added to the program in response to MDEQ's request for additional data to facilitate approval of the Site RAP, as discussed in MDEQ's May 18, 2006, RAP review comment letter. The sample analytical data are included in Tables 3 through 7. These data were previously discussed with MDEQ during a February 22, 2007 conference call.

Former Railyard Area

- MDEQ sampled surface soil for manganese off Site, in the area northwest of the Railyard, on May 21, 2007. The results of this sampling showed no exceedances of the Residential Particulate Inhalation Criterion (RPIC) in any of the samples. In addition, the concentrations of manganese found in samples collected adjacent to the Site were lower than the concentrations detected in the majority of the samples collected at greater distances from the Site.

Anticipated Site Activities

The following activities are anticipated to be completed during the period from October 2007 through September 2008:

- Continued operation of the LNAPL Recovery/Groundwater Treatment System located south of the plant building. Note that due to anticipated plant demolition activities, the system will need to be shut down periodically during the next year.

- Continued use of the automated skimmer pump to remove LNAPL in the Quench Pit Area. Note that due to anticipated plant demolition activities, the system will need to be shut down periodically during the next year.

- Semi-annual groundwater sampling activities at the Former UST #7 Area; tentatively scheduled for November 2007 and April of 2007.

- Approval by MDEQ of the revised Work Plan for Additional Site Investigation, dated July 24, 2007.

- Groundwater sampling of select wells located along the Saginaw River perimeter, and additional contingency sampling as needed based on the analytical data. It is anticipated that samples will be collected during November 2007, and again in 2008 (pending MDEQ approval of the July 24, 2007 Work Plan for additional Site investigation activities).

- Periodic inspections of the Green Point Landfill cap.

- Completion of the Annual 2007 Green Point Landfill Environmental Monitoring Program groundwater-sampling event (tentatively scheduled for November 2007, pending MDEQ approval of the July 24, 2007 Work Plan for additional Site investigation activities).

- Preparation of the Environmental Monitoring Program Annual Report for the Green Point Landfill.

- Revision of the Site RAP, following completion of the collection of the additional Site Investigation data requested by MDEQ in their May 18, 2006, RAP review comment letter. The remaining data collection will be completed pending final approval by MDEQ of the revised July 24, 2007 Work Plan for Additional Site Investigation.

Please contact me if you have any questions regarding the enclosed.

Sincerely,

ARCADIS of New York, Inc.

Lisa R. Coffey, P.G.
Sr. Geologist II

Attachments:
Table 1 – Current and Historic Groundwater Quality Data – Former UST #7 Area

Table 2 – Groundwater and LNAPL Measurement Summary, September 2002 Through the Present

Table 3 – Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program

Table 4 – Semivolatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program

Table 5 – TAL Inorganic Constituents in Groundwater, Green Point Landfill Environmental Monitoring Program

Table 6 – PCBs and Indicator Parameters in Groundwater, Green Point Landfill Environmental Monitoring Program

Table 7 – Notes for Groundwater Analytical Data Tables, Green Point Landfill Environmental Monitoring Program

References:

Monitoring Well Abandonment Records

Monitoring Well Boring Logs

Copies:
Ms. Susan Kaelber-Matlock, MDEQ
John Fordell Leone, Esq., Department of Attorney General
Ms. Cheryl Hiatt/Mr. Edward Peterson, GM WFG
Anthony Thrubis, Esq., GM
Mr. Kent Bainbridge, Waste Management, Inc.
Mr. Jim Forney, Waste Management, Inc.
Ms. Jo Ann Robertson, ARCADIS BBL

Tables

Table 1

Current and Historic Groundwater Quality Data
Former UST #7 Area

General Motors Corporation
Saginaw Malleable Iron Plant
Saginaw, Michigan

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead	Sulfate (mg/L)
Industrial & Commercial II, III & IV Drinking Water Criteria*		5 {A,I}	74 {E,I}	790 {E,I}	280 {E,I}	4 {L}	250 {E}
Groundwater Contact Criteria*		11000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	ID	ID
Residential Groundwater Volatilization to Air Inhalation Criteria*		5600 {I}	110,000 {I}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Industrial Groundwater Volatilization to Air Inhalation Criteria*		35000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Monitoring Well	**Date**						
BBL-MW1	6/96	**16**	**130**	25 U	210	3 U	5 U
	7/98	**13**	13	1 U	10	100 U	5 U
	10/98	**10**	30	2	45	3 U	2
	1/99	**26**	32	3	54	1 U	2
	4/99	**20**	30	20 U	50	1 U	3
	7/99	**27**	17	5	20	3 U	2
	10/99	**6**	3	1 U	2	3 U	1 U
	1/00	**4 (5)**	5 (5)	1 U (1 U)	5 (5)	3 U (3 U)	1 U (1 U)
	5/00	**8.1**	10	0.77 J	15	**10**	25.1
	8/00	3 (1 U)	2 (1 U)	1 U (1 U)	2 (1 U)	3 U (3 U)	6 (6)
	10/00	**17**	22	2	36	3 U	1 U
	3/01	**14 (15)**	12 (13)	1 (1)	15 (17)	3 U (3 U)	1 U (1 U)
	5/01	**14**	9	1 U	9	1 U	5 U
	8/01	**18(18)**	13(13)	1 U	15(15)	3(3)	2(2)
	2/02	**53**	25	3	28	3 U	21
	8/02	**6 (7)**	2 (2)	1 U (1 U)	2 (2)	1 U (1U)	5 (4)
	3/03	**23**	4	2	3	1 U	16
	8/03	**23 (21)**	4 (4)	2 (2)	4 (4)	0.001 U (0.001 U)	5 U (5 U)
	2/04	**29 (29)**	13 (13)	1.5 J (1.5 J)	7.4 (7.3)	0.83 B (0.81 B)	8 (8)
	8/04	**33 (32)**	19 (20)	1.6 (1.7)	6.8 (7.5)	0.93 B (1.4 B,G)	5 U (5 U)
	2/05	**36**	27	2.5 U	11	1.1	5 U
	8/05	**37**	25	3.3 U	6.7 U	1.3	5 U
	2/06	**36**	29	2.5 U	10	1.2	5 U
	8/06	**44.0**	52	4 U	17	1.1	5 U
	2/07	**34.0**	33	2.5	8.6	1U	5U
BBL-MW4	6/96	**12**	1 U	1 U	3 U	3 U	5U
	7/98	5 U	1 U	1 U	3 U	100 U	NA
	10/98	1 U	1 U	1 U	1 U	3 U	NA
	1/99	2	1 U	1 U	1 U	2	NA
	4/99	1	1 U	1 U	2 U	1 U	NA
	7/99	1 U	1 U	3	2 U	3 U	NA
	10/99	1 U	1 U	1 U	2 U	3 U	NA
	1/00	1 U	1 U	1 U	2 U	3 U	NA
	5/00	1.6	1 U	0.12 J	1 U	**5.1**	9.6 BG
	8/00	1 U	1 U	1 U	1 U	3 U	NA
	10/00	1	1 U	1 U	1 U	3 U	NA
	3/01	2	1 U	1 U	1 U	3 U	NA
	5/01	1 U (1U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA
	8/01	1 U	1 U	1 U	1 U	1 U	NA
	2/02	1 U	1 U	1 U	1 U	3 U	NA
	8/02	1 U	1 U	1 U	1 U	1 U	NA
	3/03	1 U	1 U	1 U	1 U	1 U	NA
	8/03	1 U	1 U	1 U	1 U	0.001 U	NA
	2/04	0.33 J	1 U	1 U	2 U	1 U	4 B
	8/04	0.25 J	1 U	1 U	1 U	1 U	3 B
	2/05	1 U	1 U	1 U	3 U	1 U	5 U
	8/05	1 U	1 U	1 U	2 U	1 U	5 U
	2/06	1 U	1 U	1 U	3 U	1 U	5 U
	8/06	1 U	1 U	1 U	3 U	1 U	5 U
	2/07	NA	NA	NA	NA	NA	NA
MW-135 WT	7/98	5 U	1 U	1 U	3 U	100 U	NA
	10/98	1	1 U	1 U	2 U	3 U	NA
	1/99	1 U	1 U	1 U	1 U	1 U	NA
	4/99	1 U	1 U	1 U	1 U	1 U	NA
	7/99	2	1 U	3	2 U	3 U	NA
	10/99	2	1 U	1 U	2 U	3 U	NA
	1/00	1 U	1 U	1 U	2 U	3 U	NA
	5/00	0.3 J	1 U	0.12 J	1 U	3 U	146
	8/00	1 U	1 U	1 U	1 U	3 U	NA
	10/00	1 U	1 U	1 U	1 U	3 U	NA
	3/01	1 U	1 U	1 U	1 U	3 U	NA
	5/01	1 U	1 U	1 U	1 U	1 U	NA
	8/01	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA (NA)
	2/02	1 U	1 U	1 U	1 U	3 U	NA
	8/02	1 U	1 U	1 U	1 U	1 U	NA
	3/03	1 U	1 U	1 U	1 U	1 U	NA
	8/03	1 U	1 U	2 B	1 U	0.001 U	NA
	2/04	1 U	1 U	1 U	1 U	1 U	5 U
	8/04	1 U	1 U	1 U	2 U	1 U	5 U
	2/05	1 U	1 U	1 U	3 U	1 U	5 U
	8/05	1 U	1 U	1 U	2 U	1 U	5 U
	2/06	1 U (1 U)	1 U (1 U)	1 U (1 U)	3 U (3 U)	1 U (1 U)	5 U (5 U)
	8/06	1 U (1 U)	1 U (1 U)	1 U (1 U)	3 U (3 U)	1 U (1 U)	5 U (5 U)
	2/07	NA	NA	NA	NA	NA	NA

See notes, Page 4.

Table 1

Current and Historic Groundwater Quality Data
Former UST #7 Area

General Motors Corporation
Saginaw Malleable Iron Plant
Saginaw, Michigan

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead	Sulfate (mg/L)
Industrial & Commercial II, III & IV Drinking Water Criteria*		5 {A,I}	74 {E,I}	790 {E,I}	280 {E,I}	4 {L}	250 {E}
Groundwater Contact Criteria*		11000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	ID	ID
Residential Groundwater Volatilization to Air Inhalation Criteria*		5600 {I}	110,000 {I}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Industrial Groundwater Volatilization to Air Inhalation Criteria*		35000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Monitoring Well	**Date**						
MW-139 WT	6/96	5 U	1 U	1 U	3 U	3 U	132
	7/98	5 U	1 U	1 U	3 U	100 U	160
	10/98	1 U	1 U	1 U	2 U	3 U	168
	1/99	1 U	1 U	1 U	1 U	1 U	153
	4/99	1 U	1 U	1 U	2 U	1 U	158
	7/99	1 U	1 U	1 U	2 U	3 U	156
	10/99	1 U (1)	1 U (1 U)	1 U (1 U)	2 U (2 U)	3 U (3 U)	152 (155)
	1/00	1 U	1	1 U	7	3 U	162
	5/00	1 U	1 U	0.29 J	1 U	3 U	168
	8/00	1 U	1 U	1 U	1 U	3 U	170
	10/00	1 (1)	1 U (1 U)	1 U (1 U)	1 (1)	3 U (3 U)	159 (156)
	3/01	1 U	1 U	1 U	1 U	3 U	168
	5/01	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	166 (167)
	8/01	1 U	1 U	1 U	1 U	1 U	170
	2/02	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	3 U (3 U)	163 (163)
	8/02	1 U	1 U	1 U	1 U	1 U	166
	3/03	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	164 (165)
	8/03	1 U	1 U	2 B	1 B	0.001 U	170
	2/04	1 U	1 U	1 U	1 U	1 U	160
	8/04	1 U	1 U	0.19 J	2 U	1	150
	2/05	1 U	1 U	1 U	3 U	1 U	150
	8/05	1 U	1 U	1 U	2 U	1 U	160
	2/06	1 U	1 U	1 U	3 U	1 U	91
	8/06	1 U	1 U	1 U	3 U	1 U	140
	2/07	NA	NA	NA	NA	NA	NA
UST 7-2	6/94	**2,100**	100 U	**3,100**	**9,800**	1	NA
	6/96	**950**	**1,700**	120 U	**3,600**	**114**	5 U
	7/98	**6**	17	1 U	6	100 U	NA
	10/98	1 U	2	1 U	2 U	3 U	NA
	1/99	5	23	1 U	7	1 U	NA
	4/99	10 U	40	10 U	20	1 U	NA
	7/99	10 U	20	20	10	3 U	NA
	10/99	**10 (10 U)**	20 (20)	10 U (10 U)	10 (10)	3 U (3 U)	NA (NA)
	1/00	2	1 U	1 U	1	3 U	NA
	5/00	**1,500**	**1,200**	25 J	**1,200**	**35**	2 U G
	8/00	4	1	1 U	1 U	3 U	NA
	10/00	**50**	3	1	3	3 U	NA
	3/01	**96 (112)**	9 (9)	1 (5 U)	7 (8)	3 U (3 U)	NA (NA)
	5/01	**7**	1 U	1 U	1 U	1 U	NA
	8/01	**170**	50 U	50 U	50 U	1 U	NA
	2/02	**47**	1	1 U	3	3 U	NA
	8/02	1 U (1 U)	1 U (1U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA
	3/03	**67**	1 U	1	2	1 U	NA
	8/03	**123 (126)**	1 U (1)	2 (2)	2 (3)	0.001 U (0.001 U)	NA (NA)
	2/04	**850**	**120**	12 J	97	**12.5**	5 U
	8/04	**2,100**	**980**	39 J	**400**	**4.6**	5 U
	2/05	**1600**	**420**	59	170	**5.8**	5 U
	8/05	**2400**	**610**	62 U	**210**	**6.6**	5 U
	2/06	**1900**	**450**	56 U	170 U	**5.6**	5 U
	8/06	**2300**	**610**	100 U	300 U	**4.6**	5 U
	2/07	**1900**	**310**	50U	150U	**4.5**	5U
UST 7-3R	7/98	**14**	1 U	1 U	3 U	100 U	NA
	10/98	**12**	1 U	1 U	2 U	3 U	NA
	1/99	5	1 U	1 U	1 U	1 U	NA
	4/99	**18**	1 U	1 U	2 U	1 U	NA
	7/99	**24**	1 U	2	2 U	3 U	NA
	10/99	**50**	1 U	1 U	2 U	3 U	NA
	1/00	**30 (32)**	1 U	1 U	2 U	4 (3 U)	NA
	5/00	**13**	1 U	0.12 J	1 U	3 U	27.6
	8/00	**28**	1 U	1 U	1 U	3 U	NA
	10/00	**26**	1 U	1 U	1 U	3 U	NA
	3/01	**15**	1 U	1 U	1 U	3 U	NA
	5/01	**12**	1 U	1 U	1 U	1 U	NA
	8/01	**35**	1 U	1 U	1 U	1 U	NA
	2/02	**30**	1 U	1 U	1 U	3 U	NA
	8/02	**6**	1 U	1 U	1 U	1 U	NA
	3/03	**30**	1 U	1 U	1 U	1 U	NA
	8/03	**9**	1 U	1 U	1 U	0.001 U	NA
	2/04	**9**	1 U	1 U	1 U	1 U	5 U
	8/04	**16**	1 U	1 U	2 U	1 U	3 B
	2/05	**11 (11)**	1 U (1 U)	1 U (1 U)	3 U (3 U)	1 U (1 U)	5 U (5 U)
	8/05	**12**	1 U	1 U	2 U	1 U	5 U
	2/06	**3.3**	1 U	1 U	3 U	1 U	6
	8/06	**8.9**	1 U	1 U	3 U	1 U	5 U
	2/07	1.4	1U	1U	3U	1U	5U

See Notes, Page 4.

Table 1

Current and Historic Groundwater Quality Data
Former UST #7 Area

General Motors Corporation
Saginaw Malleable Iron Plant
Saginaw, Michigan

		Benzene	Ethylbenzene	Toluene	Total Xylenes	Lead	Sulfate (mg/L)
Industrial & Commercial II, III & IV Drinking Water Criteria*		5 {A,I}	74 {E,I}	790 {E,I}	280 {E,I}	4 {L}	250 {E}
Groundwater Contact Criteria*		11000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	ID	ID
Residential Groundwater Volatilization to Air Inhalation Criteria*		5600 {I}	110,000 {I}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Industrial Groundwater Volatilization to Air Inhalation Criteria*		35000 {I}	170,000 {I,S}	530,000 {I,S}	190,000 {I,S}	NLV	NLV
Monitoring Well	**Date**						
UST 7-4	6/94	110	2.0 U	8	1.0 U	1.0 U	NA
	6/96	44	1.7 U	1.7 U	5.1 U	3 U	6
	7/98	14	1 U	1 U	3 U	100 U	NA
	10/98	10	1 U	1 U	2 U	3 U	NA
	1/99	17	1 U	1 U	2 U	1 U	NA
	4/99	7	1 U	1 U	2 U	1 U	NA
	7/99	4	1 U	4	2 U	3 U	NA
	10/99	4	1 U	1 U	1	3 U	NA
	1/00	3	1 U	1	1	17	NA
	5/00	6	0.18 J	0.22 J	0.67 J	9.4	30.5
	8/00	3 (3)	1 U (1 U)	1 U (1 U)	1 U (1 U)	3 U (3 U)	NA
	10/00	23	1 U	1 U	1 U	3 U	NA
	3/01	2	1 U	1 U	1	3 U	NA
	5/01	2	1 U	1 U	1 U	1 U	NA
	8/01	2	1 U	1 U	1 U	1 U	NA
	2/02	16 (16)	2 (3)	1 U (1 U)	1 (1)	3 U (3 U)	NA
	8/02	1	1 U	1 U	1 U	1 U	NA
	3/03	1 U (1 U)	1 U (1U)	1 U (1 U)	1 U (1 U)	1 U (1 U)	NA
	8/03	2	1 U	1 U	1 U	0.001 U	NA
	2/04	4	1 U	0.25 J	0.84 J	1 U	23
	8/04	0.71 J	1 U	1 U	1 U	1 U	5 U
	2/05	1 U	1 U	1 U	3 U	1 U	5 U
	8/05	1 U	1 U	1 U	2 U	1 U	5 U
	2/06	1 U	1 U	1 U	3 U	1 U	6
	8/06	1 U	1 U	1 U	3 U	1 U	5 U
	2/07	1.1	1U	1U	3U	1U	5U
UST 7-5	6/94	3,700	13,000	3,600	19,000	1	NA
	6/96	1,600	1,800	1,400	6,900	46	8
	7/98	1,900	200 U	930	7,900	100 U	NA
	10/98	1,390	1,330	990	5,120	3 U	NA
	1/99	190	680	450	4,440	10	NA
	4/99	400	890	400	6,540	5	NA
	7/99	300	240	240	3,470	4	NA
	10/99	20	110	20	860	5	NA
	1/00	23	71	9	354	3 U	NA
	5/00	42 (56)	71 (83)	13 (13)	330 (360)	20.3 (12.9)	52.6 (54.2)
	8/00	160	100	40	530	3 U	NA
	10/00	56 (59)	27 (29)	30 (50 U)	860 (870)	3 U (3 U)	NA
	3/01	200	100	100 U	1,300	6	NA
	5/01	10 U	10	10 U	170	1	NA
	8/01	160	130	50 U	690	2	NA
	2/02	1	1	1 U	7	14	NA
	8/02	7	7	3	85	3	NA
	3/03	330	380	80	1,400	2	NA
	8/03	470	340	100	1,690	0.001	NA
	2/04	42	62	27	360	2.1	210
	8/04	120	96	29	460	1.8	5 U
	2/05	140	78	34	450	1.8	99
	8/05	340	230	86	1060	1 U	5 U
	2/06	390	450	42	1500	1 U	39
	8/06	430	440	63	2000	1 U	5 U
	2/07	340	330	20U	960	1U	8

See Notes, Page 4.

Table 1

Current and Historic Groundwater Quality Data
Former UST #7 Area

General Motors Corporation
Saginaw Malleable Iron Plant
Saginaw, Michigan

Notes:
All units are micrograms per liter (ug/L) except sulfate concentrations which are reported in units of milligrams per liter (mg/L).
ID = Insufficient Data.
Bolded and underlined values indicate exceedance of referenced criteria.
NA = Not Analyzed.
B = The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
G = Elevated reporting limit. The reporting limit is elevated due to matrix interference.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
U = Not detected above method detection limit.
* Michigan Department of Environmental Quality - Generic Industrial Cleanup Criteria and Screening Levels, December 2002.
{A} Criterion is the State of Michigan Drinking Water Standard established pursuant to Section 5 of the Safe Drinking Water Act, Act. No. 399 of the Public Acts
{E} Criterion is the aesthetic drinking water value, as required by Sec. 20120(1)(5).
{I} Hazardous substance may exhibit the characteristic of ignitability as defined in 40 CFR 261.21.
{L} Reserved.
{S} Criterion defaults to the chemical-specific water solubility limit.
NLV = Chemical is not likely to volatilize under most conditions.
The number in parentheses is the sample duplicate.

TABLE 2
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
SEPTEMBER 2002 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Date	MW-132WT reference elevation = 594.24				MW-147WT reference elevation = 592.07				MW-157WT reference elevation = 591.72				MW-158WT reference elevation = 591.78			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
September 25, 2002	--	--	--	--	7.67	2.13	9.80	584.23	--	--	--	--	NA	NA	NA	NA
October 29, 2002	--	--	--	--	7.77	2.78	10.55	584.08	--	--	--	--	NP	0.00	8.60	583.18
November 26, 2002	--	--	--	--	7.75	1.75	9.50	584.18	--	--	--	--	NA	NA	NA	NA
December 19, 2002	--	--	--	--	7.78	1.27	9.05	584.19	--	--	--	--	NA	NA	NA	NA
January 10, 2003	--	--	--	--	9.25	0.00	9.25	582.82	--	--	--	--	NA	NA	NA	NA
February 25, 2003	--	--	--	--	8.18	1.30	9.48	583.79	--	--	--	--	NA	NA	NA	NA
March 27, 2003	--	--	--	--	8.06	1.06	9.12	583.93	--	--	--	--	NA	NA	NA	NA
April 29, 2003	--	--	--	--	7.38	0.98	8.36	584.61	--	--	--	--	NA	NA	NA	NA
May 29, 2003	--	--	--	--	6.69	2.15	8.84	585.21	--	--	--	--	NA	NA	NA	NA
June 25, 2003	--	--	--	--	6.79	2.75	9.54	585.06	--	--	--	--	NA	NA	NA	NA
July 30, 2003	--	--	--	--	6.63	2.78	9.41	585.22	--	--	--	--	NA	NA	NA	NA
August 4, 2003	--	--	--	--	6.58	2.78	9.36	585.27	--	--	--	--	NA	NA	NA	NA
September 18, 2003	--	--	--	--	6.80	2.85	9.65	585.04	--	--	--	--	NA	NA	NA	NA
November 10, 2003	--	--	--	--	6.46	2.08	8.54	585.44	--	--	--	--	NA	NA	NA	NA
December 29, 2003	--	--	--	--	6.55	2.16	8.71	585.35	--	--	--	--	NA	NA	NA	NA
February 26, 2004	--	--	--	--	NA	NA	NA	NA	--	--	--	--	8.68	0.01	8.69	NA
March 8, 2004	--	--	--	--	NA	NA	NA	NA	--	--	--	--	8.41	0.01	8.42	NA
April 29, 2004	--	--	--	--	6.36	1.64	8.00	585.58	--	--	--	--	NA	NA	NA	NA
June 1, 2004	--	--	--	--	5.20	1.25	6.45	586.77	--	--	--	--	NA	NA	NA	NA
June 30, 2004	--	--	--	--	6.05	1.26	7.31	585.92	--	--	--	--	7.90	0.01	7.91	583.88
July 28, 2004	--	--	--	--	NA	NA	NA	NA	--	--	--	--	8.21	0.01	8.22	583.57
August 17, 2004	--	--	--	--	6.76	1.34	8.10	585.20	--	--	--	--	NP	0.00	8.39	583.39
September 27, 2004	--	--	--	--	6.91	1.61	8.52	585.03	--	--	--	--	8.41	0.01	8.42	583.37
October 29, 2004	--	--	--	--	7.04	1.78	8.82	584.89	--	--	--	--	8.56	0.01	8.57	583.22
November 30, 2004	--	--	--	--	6.35	1.72	8.07	585.58	--	--	--	--	8.35	0.01	8.36	583.43
December 27, 2004	--	--	--	--	NA	NA	NA	NA	--	--	--	--	NA	NA	NA	NA
January 26, 2005	--	--	--	--	6.28	2.03	8.31	585.63	--	--	--	--	NP	0.00	7.98	583.80
February 7, 2005	--	--	--	--	6.57	1.96	8.53	585.34	--	--	--	--	8.07	0.02	8.09	583.71
March 17, 2005	NP	0.00	10.97	583.27	6.55	2.04	8.59	585.36	7.27	0.66	7.93	584.40	NP	0.00	8.24	583.54
April 13, 2005	NP	0.00	10.94	583.30	6.44	1.74	8.18	585.49	7.18	0.18	7.36	584.53	NP	0.00	8.23	583.55
May 31, 2005	NP	0.00	10.91	583.33	6.53	1.76	8.29	585.40	7.23	0.25	7.48	584.47	NP	0.00	8.14	583.64
June 28, 2005	--	--	--	--	5.83	1.73	7.56	586.10	6.23	0.21	6.44	585.47	NP	0.00	7.72	584.06
July 29, 2005	NP	0.00	10.59	583.65	5.59	1.58	7.17	586.35	6.21	0.70	6.91	585.45	NP	0.00	7.69	584.09
August 18, 2005	NP	0.00	10.82	583.42	6.19	1.75	7.94	585.74	6.96	0.23	7.19	584.74	NP	0.00	7.98	583.80
September 28, 2005	NP	0.00	11.03	583.21	6.49	1.59	8.08	585.45	7.37	0.04	7.41	584.35	8.33	0.01	8.34	583.46
October 18, 2005	--	--	--	--	6.85	1.93	8.78	585.07	7.68	0.38	8.06	584.01	NP	0.00	8.56	583.22
November 30, 2005	NP	0.00	11.03	583.21	6.33	1.76	8.09	585.60	7.09	0.03	7.12	584.63	NP	0.00	8.31	583.47
December 26, 2005	NP	0.00	10.96	583.28	6.15	1.96	8.11	585.76	6.89	0.19	7.08	584.81	NP	0.00	8.14	583.64
January 31, 2006	NP	0.00	10.55	583.69	5.21	1.91	7.12	586.71	5.74	0.51	6.25	585.94	NP	0.00	7.53	584.25
February 24, 2006	NP	0.00	10.80	583.44	6.38	1.86	8.24	585.54	6.87	0.27	7.14	584.83	NP	0.00	7.98	583.80
March 22, 2006	NP	0.00	10.37	583.87	5.70	1.63	7.33	586.24	5.68	0.13	5.81	586.03	NP	0.00	7.71	584.07
April 27, 2006	NP	0.00	10.91	583.33	6.23	1.69	7.92	585.70	7.17	0.03	7.20	584.55	8.14	0.01	8.15	583.64
May 25, 2006	NA	NA	NA	NA	NA	NA	NA	NA	6.37	0.14	6.51	585.34	NP	0.00	7.95	583.83
June 27, 2006	NP	0.00	10.94	583.30	6.32	1.70	8.02	585.61	7.20	0.04	7.24	584.52	NP	0.00	8.17	583.61
July 11, 2006	NP	0.00	10.82	583.42	5.99	1.67	7.66	585.95	6.96	0.11	7.07	584.75	NP	0.00	8.03	583.75
August 23, 2006	NP	0.00	10.92	583.32	6.24	1.65	7.89	585.70	7.20	0.01	7.21	584.52	NP	0.00	8.08	583.70
September 26, 2006	NP	0.00	10.75	583.49	5.67	1.64	7.31	586.27	6.69	0.11	6.80	585.02	NP	0.00	7.90	583.88
October 30, 2006	NP	0.00	10.53	583.71	5.36	1.65	7.01	586.58	5.71	0.22	5.93	585.99	7.49	0.02	7.51	584.29
November 27, 2006	NP	0.00	10.80	583.44	6.00	1.66	7.66	585.94	6.89	0.12	7.01	584.82	7.92	0.01	7.93	583.86
December 27, 2006	NP	0.00	10.76	583.48	6.12	1.65	7.77	585.82	7.00	0.02	7.02	584.72	NP	0.00	7.94	583.84
January 25, 2007	NP	0.00	10.98	583.26	NA	NA	NA	NA	7.42	0.04	7.46	584.30	NA	NA	NA	NA
March 6, 2007	NP	0.00	11.06	583.18	7.08	1.60	8.68	584.86	NP	0.00	7.72	584.00	NA	NA	NA	NA
March 23, 2007	NP	0.00	10.97	583.27	6.18	1.64	7.82	585.76	7.23	0.02	7.25	584.49	NP	0.00	8.09	583.69
April 30, 2007	NP	0.00	10.88	583.36	6.13	1.47	7.60	585.82	7.10	0.05	7.15	584.62	8.05	0.01	8.06	583.73
May 17, 2007	NP	0.00	10.90	583.34	6.19	1.57	7.76	585.75	7.16	0.04	7.20	584.56	NA	NA	NA	NA
June 12, 2007	NP	0.00	10.95	583.29	6.30	1.58	7.88	585.64	7.20	0.02	7.22	584.52	NP	0.00	8.11	583.67
July 18, 2007	NP	0.00	11.01	583.23	6.42	1.62	8.04	585.52	7.19	0.02	7.21	584.53	NP	0.00	8.16	583.62
August 28, 2007	NP	0.00	10.88	583.36	5.93	1.51	7.44	586.02	6.71	0.02	6.73	585.01	NP	0.00	7.97	583.81
September 19, 2007	NP	0.00	10.37	583.87	5.59	1.53	7.12	586.36	6.03	0.12	6.15	585.68	NP	0.00	7.51	584.27

See Notes on Page 6.

TABLE 2
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
SEPTEMBER 2002 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	MW-160WT reference elevation = 591.53				MW-161WT reference elevation = 591.80				MW-168WT reference elevation = 592.11				MW-169WT reference elevation = 591.82			
Date	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
September 25, 2002	8.36	0.79	9.15	583.11	--	--	--	--	NA	NA	NA	NA	8.17	0.01	8.18	583.65
October 29, 2002	8.54	0.56	9.10	582.95	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.50	583.32
November 26, 2002	8.60	0.53	9.13	582.89	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
December 19, 2002	8.55	0.63	9.18	582.93	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.61	583.21
January 10, 2003	8.60	0.56	9.16	582.89	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.58	583.24
February 25, 2003	8.72	0.56	9.28	582.77	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.67	583.15
March 27, 2003	8.62	0.53	9.15	582.87	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.62	583.20
April 29, 2003	8.58	0.37	8.95	582.92	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.59	583.23
May 29, 2003	7.77	0.26	8.03	583.74	--	--	--	--	NA	NA	NA	NA	NP	0.00	7.95	583.87
June 25, 2003	8.47	0.22	8.69	583.04	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.31	583.51
July 30, 2003	8.36	0.22	8.58	583.15	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.21	583.61
August 4, 2003	8.32	0.22	8.54	583.19	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.18	583.64
September 18, 2003	8.48	0.34	8.82	583.02	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.51	583.31
November 10, 2003	8.50	0.20	8.70	583.01	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.41	583.41
December 29, 2003	8.68	0.23	8.91	582.83	--	--	--	--	NA	NA	NA	NA	NP	0.00	7.88	583.94
February 26, 2004	8.60	0.11	8.71	582.92	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
March 8, 2004	8.33	0.31	8.64	583.18	--	--	--	--	8.32	0.23	8.55	583.77	NA	NA	NA	NA
April 29, 2004	8.41	0.19	8.60	583.10	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
June 1, 2004	7.83	0.11	7.94	583.69	--	--	--	--	NA	NA	NA	NA	7.62	0.01	7.63	584.20
June 30, 2004	8.25	0.09	8.34	583.27	--	--	--	--	NA	NA	NA	NA	7.94	0.01	7.95	583.88
July 28, 2004	8.43	0.11	8.54	583.09	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.17	583.65
August 17, 2004	8.46	0.11	8.57	583.06	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.23	583.59
September 27, 2004	8.54	0.17	8.71	582.98	--	--	--	--	NA	NA	NA	NA	8.35	0.01	8.36	583.47
October 29, 2004	8.58	0.09	8.67	582.94	--	--	--	--	NA	NA	NA	NA	8.44	0.01	8.45	583.38
November 30, 2004	8.47	0.07	8.54	583.05	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.23	583.59
December 27, 2004	NA	NA	NA	NA	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.30	583.52
January 26, 2005	8.21	0.35	8.56	583.29	--	--	--	--	NA	NA	NA	NA	NA	NA	NA	NA
February 7, 2005	8.10	0.11	8.21	583.42	--	--	--	--	NA	NA	NA	NA	NP	0.00	8.17	583.65
March 17, 2005	8.43	0.13	8.56	583.09	NP	0.00	7.60	584.20	NA	NA	NA	NA	NA	NA	NA	NA
April 13, 2005	8.39	0.13	8.52	583.13	NP	0.00	7.82	583.98	NA	NA	NA	NA	NA	NA	NA	NA
May 31, 2005	8.39	0.15	8.54	583.13	NP	0.00	7.57	584.23	NA	NA	NA	NA	NP	0.00	8.20	583.62
June 28, 2005	8.14	0.09	8.23	583.38	NP	0.00	7.34	584.46	NA	NA	NA	NA	NP	0.00	7.92	583.90
July 29, 2005	8.13	0.04	8.17	583.40	7.39	0.01	7.40	584.41	NA	NA	NA	NA	NP	0.00	7.92	583.90
August 18, 2005	8.30	0.04	8.34	583.23	NP	0.00	7.51	584.29	NA	NA	NA	NA	NA	NA	NA	NA
September 28, 2005	8.46	0.02	8.48	583.07	NP	0.00	7.75	584.05	NA	NA	NA	NA	NA	NA	NA	NA
October 18, 2005	8.66	0.06	8.72	582.87	NP	0.00	8.00	583.80	NA	NA	NA	NA	NA	NA	NA	NA
November 30, 2005	8.52	0.01	8.53	583.01	NP	0.00	7.78	584.02	NA	NA	NA	NA	NA	NA	NA	NA
December 26, 2005	8.44	0.01	8.45	583.09	NP	0.00	7.76	584.04	NA	NA	NA	NA	NA	NA	NA	NA
January 31, 2006	NP	0.00	8.21	583.32	NP	0.00	7.37	584.43	NA	NA	NA	NA	NA	NA	NA	NA
February 24, 2006	NP	0.00	8.38	583.15	NP	0.00	7.49	584.31	NA	NA	NA	NA	NA	NA	NA	NA
March 22, 2006	8.24	0.01	8.25	583.29	NP	0.00	7.23	584.57	NA	NA	NA	NA	NA	NA	NA	NA
April 27, 2006	NP	0.00	8.43	583.10	NP	0.00	7.35	584.45	NA	NA	NA	NA	NA	NA	NA	NA
May 25, 2006	NA	NA	NA	NA	NP	0.00	7.21	584.59	NA	NA	NA	NA	NA	NA	NA	NA
June 27, 2006	NP	0.00	8.44	583.09	NP	0.00	7.39	584.41	NA	NA	NA	NA	NA	NA	NA	NA
July 11, 2006	NP	0.00	8.40	583.13	NP	0.00	7.46	584.34	NA	NA	NA	NA	NA	NA	NA	NA
August 23, 2006	NP	0.00	8.41	583.12	NP	0.00	7.41	584.39	NA	NA	NA	NA	NA	NA	NA	NA
September 26, 2006	NP	0.00	8.32	583.21	NP	0.00	7.38	584.42	NA	NA	NA	NA	NA	NA	NA	NA
October 30, 2006	NP	0.00	8.13	583.40	NP	0.00	7.17	584.63	NA	NA	NA	NA	NA	NA	NA	NA
November 27, 2006	NP	0.00	8.40	583.13	NP	0.00	7.36	584.44	NA	NA	NA	NA	NA	NA	NA	NA
December 27, 2006	NP	0.00	8.34	583.19	NP	0.00	7.32	584.48	NA	NA	NA	NA	NA	NA	NA	NA
January 25, 2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
March 6, 2007	NP	0.00	8.59	582.94	NP	0.00	7.78	584.02	NA	NA	NA	NA	NA	NA	NA	NA
March 23, 2007	NP	0.00	8.53	583.00	NP	0.00	7.58	584.22	NA	NA	NA	NA	NA	NA	NA	NA
April 30, 2007	NP	0.00	8.46	583.07	NP	0.00	7.40	584.40	NA	NA	NA	NA	NA	NA	NA	NA
May 17, 2007	NP	0.00	8.44	583.09	NP	0.00	7.39	584.41	NA	NA	NA	NA	NA	NA	NA	NA
June 12, 2007	NP	0.00	8.50	583.03	NP	0.00	7.45	584.35	NA	NA	NA	NA	NA	NA	NA	NA
July 18, 2007	NP	0.00	8.54	582.99	NP	0.00	7.59	584.21	NA	NA	NA	NA	NP	0.00	8.31	583.51
August 28, 2007	NP	0.00	8.46	583.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
September 19, 2007	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 6.

TABLE 2
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
SEPTEMBER 2002 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Date	MW-172WT reference elevation = 591.51				MW-175WT reference elevation not available				MW-178WT reference elevation = 590.35			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
September 25, 2002	8.47	0.53	9.00	583.00	NP	0.00	7.67	NA	7.99	1.40	9.39	582.25
October 29, 2002	8.42	0.88	9.30	583.02	NP	0.00	7.34	NA	7.56	1.29	8.85	582.69
November 26, 2002	8.45	0.82	9.27	582.99	NA	NA	NA	NA	7.63	0.96	8.59	582.64
December 19, 2002	8.43	0.90	9.33	583.01	NA	NA	NA	NA	7.56	1.24	8.80	582.69
January 10, 2003	8.49	0.83	9.32	582.95	NA	NA	NA	NA	7.59	1.19	8.78	582.66
February 25, 2003	8.51	1.01	9.52	582.92	NA	NA	7.58	NA	7.71	1.37	9.08	582.53
March 27, 2003	8.46	0.84	9.30	582.98	NP	0.00	7.67	NA	7.60	1.10	8.70	582.66
April 29, 2003	8.44	0.71	9.15	583.01	NP	0.00	7.62	NA	7.56	1.21	8.77	582.69
May 29, 2003	7.60	0.50	8.10	583.87	NP	0.00	7.17	NA	7.04	1.07	8.11	583.22
June 25, 2003	8.35	0.67	9.02	583.11	NP	0.00	7.48	NA	7.41	1.18	8.59	582.85
July 30, 2003	8.20	0.73	8.93	583.25	NP	0.00	7.32	NA	7.30	1.13	8.43	582.96
August 4, 2003	8.17	0.73	8.90	583.28	NP	0.00	7.30	NA	7.27	1.14	8.41	582.99
September 18, 2003	8.35	0.80	9.15	583.10	NP	0.00	7.33	NA	7.50	1.35	8.85	582.74
November 10, 2003	8.30	0.87	9.17	583.14	NP	0.00	7.35	NA	7.55	1.20	8.75	582.70
December 29, 2003	8.40	0.91	9.31	583.04	NP	0.00	7.41	NA	7.75	1.09	8.84	582.51
February 26, 2004	8.45	1.02	9.47	582.98	NA	NA	NA	NA	NP	0.00	7.54	582.81
March 8, 2004	8.18	0.44	8.62	583.29	NA	NA	NA	NA	NA	NA	NA	NA
April 29, 2004	7.98	0.56	8.54	583.49	NA	NA	NA	NA	NP	0.00	7.21	583.14
June 1, 2004	NA	NA	NA	NA	NA	NA	NA	NA	7.37	1.24	8.61	582.88
June 30, 2004	8.55	0.06	8.61	582.96	6.71	0.01	6.72	NA	NA	NA	NA	NA
July 28, 2004	8.32	0.36	8.68	583.16	6.88	0.01	6.89	NA	7.45	1.25	8.70	582.80
August 17, 2004	8.33	0.49	8.82	583.14	7.01	0.01	7.02	NA	7.46	1.33	8.79	582.78
September 27, 2004	8.42	0.48	8.90	583.05	7.18	0.01	7.19	NA	7.51	1.02	8.53	582.76
October 29, 2004	NA	NA	NA	NA	7.24	0.01	7.25	NA	NA	NA	NA	NA
November 30, 2004	8.39	0.72	9.11	583.06	NP	0.00	7.11	NA	NA	NA	NA	NA
December 27, 2004	NA	NA	NA	NA	NP	0.00	7.11	NA	7.53	0.59	8.12	582.77
January 26, 2005	NA	NA	NA	NA	NP	0.00	7.01	NA	7.55	0.65	8.20	582.75
February 7, 2005	8.00	0.19	8.19	583.49	7.11	0.01	7.12	NA	7.17	0.39	7.56	583.15
March 17, 2005	8.34	0.28	8.62	583.15	NP	0.00	7.22	NA	7.63	0.65	8.28	582.67
April 13, 2005	8.33	0.35	8.68	583.15	NP	0.00	7.12	NA	7.46	0.69	8.15	582.83
May 31, 2005	8.29	0.38	8.67	583.19	NP	0.00	6.98	NA	7.56	0.83	8.39	582.72
June 28, 2005	8.06	0.04	8.10	583.45	6.67	0.01	6.68	NA	7.39	0.56	7.95	582.92
July 29, 2005	8.06	0.02	8.08	583.45	NP	0.00	6.73	NA	7.44	0.82	8.26	582.84
August 18, 2005	8.24	0.17	8.41	583.26	NP	0.00	6.83	NA	7.51	1.26	8.77	582.74
September 28, 2005	8.36	0.21	8.57	583.13	NP	0.00	7.04	NA	7.49	0.32	7.81	582.83
October 18, 2005	8.51	0.42	8.93	582.97	NP	0.00	7.26	NA	7.57	0.32	7.89	582.75
November 30, 2005	8.41	0.32	8.73	583.07	NP	0.00	7.16	NA	7.54	0.51	8.05	582.77
December 26, 2005	8.32	0.35	8.67	583.16	NP	0.00	7.19	NA	7.54	1.24	8.78	582.71
January 31, 2006	8.08	0.27	8.35	583.41	NP	0.00	6.79	NA	7.45	0.16	7.61	582.89
February 24, 2006	8.32	0.33	8.65	583.16	NP	0.00	6.99	NA	7.56	0.60	8.16	582.74
March 22, 2006	8.17	0.08	8.25	583.33	NP	0.00	6.75	NA	7.42	0.14	7.56	582.92
April 27, 2006	8.33	0.11	8.44	583.17	NP	0.00	6.84	NA	7.43	0.26	7.69	582.90
May 25, 2006	8.20	0.18	8.38	583.30	NP	0.00	6.62	NA	7.39	0.36	7.75	582.93
June 27, 2006	8.39	0.31	8.70	583.10	NP	0.00	6.79	NA	7.43	0.37	7.80	582.89
July 11, 2006	8.27	0.36	8.63	583.21	NP	0.00	6.79	NA	7.46	0.34	7.80	582.86
August 23, 2006	8.36	0.19	8.55	583.13	NP	0.00	6.81	NA	7.39	0.47	7.86	582.92
September 26, 2006	8.21	0.23	8.44	583.28	NP	0.00	6.70	NA	7.41	0.29	7.70	582.92
October 30, 2006	8.07	0.15	8.22	583.43	NP	0.00	6.56	NA	7.35	0.38	7.73	582.97
November 27, 2006	8.29	0.16	8.45	583.21	NP	0.00	6.79	NA	7.37	0.34	7.71	582.95
December 27, 2006	NA	NA	NA	NA	NP	0.00	6.83	NA	7.36	0.33	7.69	582.96
January 25, 2007	NA	NA	NA	NA	NA	NA	NA	NA	7.41	0.38	7.79	582.91
March 6, 2007	8.44	0.29	8.73	583.05	NA	NA	NA	NA	7.51	0.51	8.02	582.80
March 23, 2007	8.41	0.33	8.74	583.07	NP	0.00	7.13	NA	7.51	0.46	7.97	582.80
April 30, 2007	8.34	0.36	8.70	583.14	NP	0.00	6.89	NA	7.48	0.25	7.73	582.85
May 17, 2007	8.32	0.19	8.51	583.17	NP	0.00	6.86	NA	7.13	0.33	7.46	583.19
June 12, 2007	8.33	0.38	8.71	583.15	NP	0.00	6.91	NA	7.47	0.28	7.75	582.86
July 18, 2007	8.39	NA	NA	NA	NP	0.00	7.02	NA	7.46	0.32	7.78	582.86
August 28, 2007	NA	NA	NA	NA	NP	0.00	6.96	NA	7.46	0.29	7.75	582.87
September 19, 2007	NA	NA	NA	NA	NP	0.00	6.66	NA	6.87	0.11	6.98	583.47

See Notes on Page 6.

TABLE 2
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
SEPTEMBER 2002 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Date	MW-179WT reference elevation not available				MW-180WT reference elevation = 590.67				RW-1 reference elevation = 592.18			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
September 25, 2002	--	--	--	--	--	--	--	--	NA	NA	NA	NA
October 29, 2002	--	--	--	--	--	--	--	--	8.98	0.22	9.20	583.18
November 26, 2002	--	--	--	--	--	--	--	--	9.03	0.18	9.21	583.14
December 19, 2002	--	--	--	--	--	--	--	--	NA	NA	NA	NA
January 10, 2003	--	--	--	--	--	--	--	--	NA	NA	NA	NA
February 25, 2003	--	--	--	--	--	--	--	--	NA	NA	NA	NA
March 27, 2003	--	--	--	--	--	--	--	--	9.06	0.58	9.64	583.07
April 29, 2003	--	--	--	--	--	--	--	--	8.99	0.79	9.78	583.13
May 29, 2003	--	--	--	--	--	--	--	--	8.49	0.41	8.90	583.66
June 25, 2003	--	--	--	--	--	--	--	--	8.58	0.43	9.01	583.57
July 30, 2003	--	--	--	--	--	--	--	--	8.43	0.46	8.89	583.71
August 4, 2003	--	--	--	--	--	--	--	--	8.40	0.45	8.85	583.74
September 18, 2003	--	--	--	--	--	--	--	--	8.70	0.45	9.15	583.44
November 10, 2003	--	--	--	--	--	--	--	--	8.59	0.33	8.92	583.56
December 29, 2003	--	--	--	--	--	--	--	--	9.19	0.76	9.95	582.93
February 26, 2004	--	--	--	--	--	--	--	--	9.00	4.40	13.40	582.83
March 8, 2004	--	--	--	--	--	--	--	--	8.10	0.18	8.28	584.07
April 29, 2004	--	--	--	--	--	--	--	--	8.63	0.17	8.80	583.54
June 1, 2004	--	--	--	--	--	--	--	--	7.71	0.27	7.98	584.45
June 30, 2004	--	--	--	--	--	--	--	--	8.30	0.13	8.43	583.87
July 28, 2004	--	--	--	--	--	--	--	--	8.76	0.39	9.15	583.39
August 17, 2004	--	--	--	--	--	--	--	--	8.89	0.46	9.35	583.25
September 27, 2004	--	--	--	--	--	--	--	--	8.87	0.38	9.25	583.28
October 29, 2004	--	--	--	--	--	--	--	--	NA	NA	NA	NA
November 30, 2004	--	--	--	--	--	--	--	--	8.79	0.95	9.74	583.31
December 27, 2004	--	--	--	--	--	--	--	--	8.76	0.55	9.31	583.38
January 26, 2005	--	--	--	--	--	--	--	--	8.43	1.29	9.72	583.65
February 7, 2005	--	--	--	--	--	--	--	--	8.59	0.70	9.29	583.53
March 17, 2005	NP	0.00	7.13	NA	7.15	0.02	7.17	583.52	NA	NA	NA	NA
April 13, 2005	NP	0.00	6.91	NA	NP	0.00	6.87	583.80	8.60	0.28	8.88	583.56
May 31, 2005	NP	0.00	6.96	NA	NP	0.00	7.01	583.66	8.58	0.21	8.79	583.58
June 28, 2005	NP	0.00	6.82	NA	6.84	0.01	6.85	583.83	8.13	0.21	8.34	584.03
July 29, 2005	NP	0.00	6.73	NA	NP	0.00	6.73	583.94	8.05	0.17	8.22	584.12
August 18, 2005	NP	0.00	6.78	NA	NP	0.00	6.78	583.89	8.18	0.79	8.97	583.94
September 28, 2005	NP	0.00	6.95	NA	6.99	0.01	7.00	583.68	8.81	0.59	9.40	583.32
October 18, 2005	NP	0.00	7.14	NA	7.20	0.01	7.21	583.47	8.83	0.91	9.74	583.28
November 30, 2005	7.03	0.01	7.04	NA	NP	0.00	7.11	583.56	8.54	0.68	9.22	583.59
December 26, 2005	NP	0.00	7.14	NA	NP	0.00	7.20	583.47	NA	NA	NA	NA
January 31, 2006	NP	0.00	7.63	NA	NP	0.00	6.81	583.86	NA	NA	NA	NA
February 24, 2006	NP	0.00	7.82	NA	NP	0.00	6.81	583.86	8.49	0.33	8.82	583.66
March 22, 2006	NP	0.00	6.68	NA	NP	0.00	6.69	583.98	8.35	0.52	8.87	583.79
April 27, 2006	6.79	0.01	6.80	NA	NP	0.00	6.82	583.85	8.72	0.67	9.39	583.41
May 25, 2006	NP	0.00	6.74	NA	NP	0.00	6.76	583.91	8.45	0.56	9.01	583.69
June 27, 2006	NP	0.00	6.84	NA	NP	0.00	6.85	583.82	8.71	0.71	9.42	583.41
July 11, 2006	NP	0.00	6.83	NA	NP	0.00	6.90	583.77	8.49	0.86	9.35	583.62
August 23, 2006	NP	0.00	6.61	NA	NP	0.00	6.65	584.02	8.51	0.97	9.48	583.59
September 26, 2006	NA	NA	NA	NA	NP	0.00	6.76	583.91	8.31	0.48	8.79	583.83
October 30, 2006	NA	NA	NA	NA	NP	0.00	6.49	584.18	NA	NA	NA	NA
November 27, 2006	NA	NA	NA	NA	NP	0.00	6.59	584.08	8.43	0.61	9.04	583.70
December 27, 2006	NA	NA	NA	NA	NP	0.00	6.64	584.03	NA	NA	NA	NA
January 25, 2007	NA	NA	NA	NA	NP	0.00	6.76	583.91	NA	NA	NA	NA
March 6, 2007	NP	0.00	7.13	NA	NP	0.00	7.16	583.51	8.53	0.27	8.80	583.63
March 23, 2007	NP	0.00	6.90	NA	NP	0.00	6.93	583.74	8.31	0.27	8.58	583.85
April 30, 2007	NP	0.00	6.56	NA	NP	0.00	6.58	584.09	8.52	0.09	8.61	583.65
May 17, 2007	NA	NA	NA	NA	NP	0.00	6.52	584.15	8.38	0.14	8.52	583.79
June 12, 2007	NP	0.00	6.57	NA	NP	0.00	6.58	584.09	8.39	0.07	8.46	583.78
July 18, 2007	NP	0.00	6.75	NA	NP	0.00	6.78	583.89	8.46	0.63	9.09	583.67
August 28, 2007	NP	0.00	6.82	NA	NP	0.00	6.85	583.82	8.23	0.11	8.34	583.94
September 19, 2007	NP	0.00	6.65	NA	NP	0.00	6.69	583.98	7.93	0.11	8.04	584.24

See Notes on Page 6.

TABLE 2
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
SEPTEMBER 2002 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Date	RW-2 reference elevation = 592.07				RW-3 reference elevation = 592.32				TP-2			
	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Depth to Water (feet)	Groundwater Elevation (corrected)
September 25, 2002	8.93	0.01	8.94	583.14	8.60	0.01	8.61	583.72	8.95	0.30	9.25	NA
October 29, 2002	8.99	0.01	9.00	583.08	NP	0.00	8.69	583.63	9.04	0.30	9.34	NA
November 26, 2002	NA	NA	NA	NA	NA	NA	NA	NA	9.11	0.29	9.40	NA
December 19, 2002	NP	0.00	9.08	582.99	NP	0.00	8.82	583.50	NA	NA	NA	NA
January 10, 2003	NP	0.00	9.06	583.01	NP	0.00	8.83	583.49	NA	NA	NA	NA
February 25, 2003	9.19	0.01	9.20	582.88	9.00	0.01	9.01	583.32	9.39	0.57	9.96	NA
March 27, 2003	9.11	0.01	9.12	582.96	8.93	0.01	8.94	583.39	NA	NA	NA	NA
April 29, 2003	9.01	0.01	9.02	583.06	8.51	0.01	8.52	583.81	9.15	0.01	9.16	NA
May 29, 2003	8.65	0.01	8.66	583.42	7.35	0.01	7.36	584.97	8.68	0.01	8.69	NA
June 25, 2003	9.63	0.01	9.64	582.44	8.95	0.01	8.96	583.37	8.82	0.79	9.61	NA
July 30, 2003	9.47	0.01	9.48	582.60	8.78	0.01	8.79	583.54	8.71	0.78	9.49	NA
August 4, 2003	9.46	0.01	9.47	582.61	8.73	0.01	8.74	583.59	8.65	0.78	9.43	NA
September 18, 2003	8.92	0.01	8.93	583.15	NP	0.00	8.28	584.04	NA	NA	NA	NA
November 10, 2003	NP	0.00	8.95	583.12	NP	0.00	8.23	584.09	8.59	0.61	9.20	NA
December 29, 2003	NP	0.00	9.01	583.06	8.28	0.01	8.29	584.04	9.35	0.27	9.62	NA
February 26, 2004	NA	NA	NA	NA	8.50	0.01	8.51	583.82	9.03	3.40	12.43	NA
March 8, 2004	NA	NA	NA	NA	8.27	0.01	8.28	584.05	NA	NA	NA	NA
April 29, 2004	NA	NA	NA	NA	7.78	0.01	7.79	584.54	8.65	0.75	9.40	NA
June 1, 2004	NA	NA	NA	NA	NP	0.00	5.61	586.71	7.64	0.23	7.87	NA
June 30, 2004	8.66	0.01	8.67	583.41	NP	0.00	7.44	584.88	NA	NA	NA	NA
July 28, 2004	8.83	0.01	8.84	583.24	NP	0.00	8.14	584.18	NA	NA	NA	NA
August 17, 2004	8.94	0.01	8.95	583.13	NP	0.00	8.51	583.81	NA	NA	NA	NA
September 27, 2004	9.09	0.01	9.10	582.98	NP	0.00	8.50	583.82	8.75	0.71	9.46	NA
October 29, 2004	8.71	0.02	8.73	583.36	NP	0.00	7.72	584.60	NA	NA	NA	NA
November 30, 2004	9.02	0.01	9.03	583.05	NP	0.00	8.07	584.25	8.67	1.00	9.67	NA
December 27, 2004	NP	0.00	9.03	583.04	NP	0.00	7.84	584.48	NA	NA	NA	NA
January 26, 2005	NP	0.00	8.69	583.38	NP	0.00	6.92	585.40	8.33	1.09	9.42	NA
February 7, 2005	NP	0.00	8.73	583.34	NP	0.00	7.57	584.75	8.44	1.05	9.49	NA
March 17, 2005	NP	0.00	8.92	583.15	NP	0.00	7.82	584.50	8.61	1.30	9.91	NA
April 13, 2005	NP	0.00	8.94	583.13	NP	0.00	7.83	584.49	8.49	1.13	9.62	NA
May 31, 2005	NP	0.00	8.93	583.14	NP	0.00	7.88	584.44	8.54	0.33	8.87	NA
June 28, 2005	NP	0.00	8.71	583.36	NP	0.00	7.04	585.28	8.01	0.48	8.49	NA
July 29, 2005	NP	0.00	8.69	583.38	NP	0.00	6.77	585.55	7.97	0.25	8.22	NA
August 18, 2005	NP	0.00	8.67	583.40	NP	0.00	7.72	584.60	8.28	0.75	9.03	NA
September 28, 2005	NP	0.00	9.01	583.06	NP	0.00	8.41	583.91	8.69	0.82	9.51	NA
October 18, 2005	NP	0.00	8.99	583.08	NP	0.00	8.41	583.91	--	--	--	NA
November 30, 2005	NP	0.00	8.93	583.14	NP	0.00	8.02	584.30	--	--	--	NA
December 26, 2005	NP	0.00	8.99	583.08	NP	0.00	7.98	584.34	8.43	0.87	9.30	NA
January 31, 2006	NP	0.00	8.72	583.35	NP	0.00	5.50	586.82	7.82	0.72	8.54	NA
February 24, 2006	NP	0.00	8.87	583.20	NP	0.00	6.78	585.54	8.36	1.04	9.40	NA
March 22, 2006	NA	NA	NA	NA	NP	0.00	6.29	586.03	8.22	0.81	9.03	NA
April 27, 2006	NA	NA	NA	NA	NP	0.00	7.66	584.66	8.57	0.99	9.56	NA
May 25, 2006	NA	NA	NA	NA	NP	0.00	7.25	585.07	8.31	0.96	9.27	NA
June 27, 2006	NA	NA	NA	NA	NP	0.00	7.91	584.41	NA	NA	NA	NA
July 11, 2006	NA	NA	NA	NA	NP	0.00	7.34	584.98	8.03	1.70	9.73	NA
August 23, 2006	NA	NA	NA	NA	NP	0.00	7.89	584.43	NA	NA	NA	NA
September 26, 2006	NP	0.00	8.90	583.17	NP	0.00	7.08	585.24	NA	NA	NA	NA
October 30, 2006	NP	0.00	8.75	583.32	NP	0.00	7.05	585.27	NA	NA	NA	NA
November 27, 2006	NP	0.00	8.94	583.13	NP	0.00	7.50	584.82	NA	NA	NA	NA
December 27, 2006	NP	0.00	8.76	583.31	NP	0.00	7.33	584.99	NA	NA	NA	NA
January 25, 2007	NA	NA	NA	NA	NP	0.00	7.90	584.42	NA	NA	NA	NA
March 6, 2007	NP	0.00	9.14	582.93	NP	0.00	8.18	584.14	8.54	0.92	9.46	NA
March 23, 2007	NP	0.00	8.64	583.43	NA	NA	NA	NA	8.28	0.89	9.17	NA
April 30, 2007	NP	0.00	8.98	583.09	NP	0.00	8.03	584.29	8.37	0.79	9.16	NA
May 17, 2007	NP	0.00	8.99	583.08	NP	0.00	7.98	584.34	8.34	0.77	9.11	NA
June 12, 2007	NP	0.00	9.03	583.04	NP	0.00	8.21	584.11	8.29	0.76	9.05	NA
July 18, 2007	NP	0.00	9.07	583.00	NP	0.00	8.27	584.05	8.44	0.01	8.45	NA
August 28, 2007	NP	0.00	9.00	583.07	NP	0.00	7.57	584.75	8.12	0.45	8.57	NA
September 19, 2007	NP	0.00	8.44	583.63	NP	0.00	7.03	585.29	7.82	0.11	7.93	NA

See Notes on Page 6.

TABLE 2
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
SEPTEMBER 2002 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Notes:

The reference elevation for each of the recovery wells (RW-1, RW-2, RW-3, and RW-4) is the ground surface elevation; approximately equal to the elevation of the edge of the vault.

NA = not available; monitoring well inaccessible (e.g., covered by pallet, gravel, roll-off, vehicle, or snowpile).

-- = Not measured.

NP = LNAPL was not present in well. An LNAPL density of 0.92 was used to correct the water level elevations for the presence of LNAPL.

LNAPL is periodically removed by bailing from monitoring well MW-178WT.

See Notes on Page 6.

Table 3. Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	MW-117S1 12/13/06	MW-117S2 12/13/06	MW-117WT 12/13/06	MW-118S1 12/14/06	MW-118S2 12/14/06	MW-118WT 12/14/06	MW-128SI 12/12/06	MW-128WT 12/13/06	X-1A 12/12/06
Volatiles											
1,1,1,2-Tetrachloroethane	{ID (X)}	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.2	0.2 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,1,2,2-Tetrachloroethane	0.078 {X}	0.035	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.032	170 {S}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,1,2-Trichloroethane	0.33 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,1-Dichloroethane	0.74	2.5	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.00035 J
1,1-Dichloroethene	0.065 {I,X}	0.007 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,2,3-Trichloropropane	{NA}	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0.03	0.07 {A}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.005 U
1,2-Dibromo-3-chloropropane	{NA}	0.0002 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,2-Dibromoethane	0.0002 {X}	0.00005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,2-Dichlorobenzene	0.016	0.6 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,2-Dichloroethane	0.36 {I,X}	0.005 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,2-Dichloroethene, Total	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.29 {I,X}	0.005 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,3-Dichlorobenzene	0.038	0.019	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,4-Dichlorobenzene	0.013	0.075 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
1,4-Dioxane	2.8 {I,X}	0.35 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2.2 {I}	38 {I}	0.025 UJ	0.025 UJ	0.025 UJ	0.025 U	0.025 U	0.0021 J	0.0027 J	0.05 UJ	0.025 U
2-Chloro-1,3-butadiene	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{NA}	2.9	0.05 UJ	0.05 UJ	0.05 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.1 UJ	0.05 U
3-Chloro-1-propene	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	5.2 {I}	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.05 U
Acetone	1.7 {I}	2.1 {I}	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.05 UJ	0.025 UJ
Acetonitrile	{NA}	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	{NA}	0.33 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	0.0049 {I,X}	0.011 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.2 {I,X}	0.005 {I,A}	0.00065 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.0047
Bromodichloromethane	{ID}	0.08 {A,W}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Bromoform	{ID}	0.08 {A,W}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Bromomethane	0.035	0.029	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Carbon disulfide	{ID}	2.3 {I,R}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.005 U
Carbon tetrachloride	0.045 {X}	0.005 {A}	0.001 UJ	0.001 UJ	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.002 UJ	0.001 U
Chlorobenzene	0.047 {I}	0.1 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U

See Notes in Table 7.

Table 3. Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	MW-117S1 12/13/06	MW-117S2 12/13/06	MW-117WT 12/13/06	MW-118S1 12/14/06	MW-118S2 12/14/06	MW-118WT 12/14/06	MW-128SI 12/12/06	MW-128WT 12/13/06	X-1A 12/12/06
Volatiles											
Chlorodibromomethane	{ID}	0.08 {A,W}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Chloroethane	{ID}	1.7	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.0068
Chloroform	0.17 {X}	0.08 {A,W}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Chloromethane	{ID}	1.1 {I}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
cis-1,2-Dichloroethene	0.62	0.07 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.00028 J
cis-1,3-Dichloropropene	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 UJ
Cyclohexane	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.00028 J
Dibromomethane	{NA}	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	4.8	0.001 UJ	0.001 UJ	0.001 UJ	0.001 UJ	0.001 UJ	0.001 UJ	0.001 U	0.002 UJ	0.001 UJ
Ethylbenzene	0.018 {I}	0.074 {I,E}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Iodomethane	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	{NA}	6.7 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	{ID}	2.3	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.00062 J	0.00062 J	0.01 U	0.0028 J
Methacrylonitrile	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	0.01 U
Methyl methacrylate	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.73 {X}	0.04 {E}	0.005 U	0.005 U	0.0002 J	0.005 U	0.005 U	0.00031 J	0.005 U	0.01 U	0.005 U
Methylcyclohexane	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Methylene chloride	0.94 {X}	0.005 {A}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 U	0.005 U
Propionitrile	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	{NA}	0.021 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.08	0.1 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Tetrachloroethene	0.045 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 UJ
Toluene	0.14 {I}	0.79 {I,E}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Total 1,3-Dichloropropenes	{NA}	0.035	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1.5	0.1 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
trans-1,3-Dichloropropene	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
trans-1,4-Dichloro-2-butene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.2 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Trichlorofluoromethane	{NA}	7.3	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Vinyl acetate	{NA}	1.8 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.015	0.002 {A}	0.001 U	0.001 U	0.001 U	0.00023 J	0.001 U	0.001 U	0.001 U	0.002 U	0.001 U
Xylenes, Total	0.035 {I}	0.28 {I,E}	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.00058 J	0.0059	0.004 U	0.0023

See Notes in Table 7.

Table 3. Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-1B 12/12/06	X-1CR2 12/12/06	X-2A 12/12/06	X-2B 12/12/06	X-2C 12/12/06	X-2DAUG 12/13/06	X-4A* 12/14/06	X-9AR* 12/15/06	X-9BR* 12/15/06
Volatiles											
1,1,1,2-Tetrachloroethane	{ID (X)}	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.2	0.2 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	0.078 {X}	0.035	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.032	170 {S}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1,2-Trichloroethane	0.33 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethane	0.74	2.5	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,1-Dichloroethene	0.065 {I,X}	0.007 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2,3-Trichloropropane	{NA}	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0.03	0.07 {A}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
1,2-Dibromo-3-chloropropane	{NA}	0.0002 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dibromoethane	0.0002 {X}	0.00005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichlorobenzene	0.016	0.6 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethane	0.36 {I,X}	0.005 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,2-Dichloroethene, Total	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.29 {I,X}	0.005 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,3-Dichlorobenzene	0.038	0.019	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dichlorobenzene	0.013	0.075 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
1,4-Dioxane	2.8 {I,X}	0.35 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2.2 {I}	38 {I}	0.025 U	0.025 U	0.0016 J	0.00051 J	0.025 U	0.025 UJ	0.025 U	0.025 U	0.025 U
2-Chloro-1,3-butadiene	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{NA}	2.9	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 UJ	0.05 U	0.05 U	0.05 U
3-Chloro-1-propene	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	5.2 {I}	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Acetone	1.7 {I}	2.1 {I}	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ	0.025 UJ
Acetonitrile	{NA}	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrolein	{NA}	0.33 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	0.0049 {I,X}	0.011 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.2 {I,X}	0.005 {I,A}	0.0019	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromodichloromethane	{ID}	0.08 {A,W}	0.001 U	0.00024 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromoform	{ID}	0.08 {A,W}	0.001 U	0.0078	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Bromomethane	0.035	0.029	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Carbon disulfide	{ID}	2.3 {I,R}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Carbon tetrachloride	0.045 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U
Chlorobenzene	0.047 {I}	0.1 {I,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U

See Notes in Table 7.

Table 3. Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-1B 12/12/06	X-1CR2 12/12/06	X-2A 12/12/06	X-2B 12/12/06	X-2C 12/12/06	X-2DAUG 12/13/06	X-4A* 12/14/06	X-9AR* 12/15/06	X-9BR* 12/15/06
Volatiles											
Chlorodibromomethane	{ID}	0.08 {A,W}	0.001 U	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroethane	{ID}	1.7	0.0037	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloroform	0.17 {X}	0.08 {A,W}	0.001 U	0.0003 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chloromethane	{ID}	1.1 {I}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.62	0.07 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00039 J	0.001 U	0.001 U	0.001 U
cis-1,3-Dichloropropene	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cyclohexane	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Dibromomethane	{NA}	0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	4.8	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 UJ	0.001 UJ	0.001 UJ
Ethylbenzene	0.018 {I}	0.074 {I,E}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Iodomethane	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	{NA}	6.7 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	{ID}	2.3	0.00073 J	0.005 U	0.00062 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methacrylonitrile	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	--	--	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Methyl methacrylate	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.73 {X}	0.04 {E}	0.00038 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Methylcyclohexane	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Methylene chloride	0.94 {X}	0.005 {A}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Propionitrile	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyridine	{NA}	0.021 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	0.08	0.1 {A}	0.00057 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tetrachloroethene	0.045 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Toluene	0.14 {I}	0.79 {I,E}	0.001 U	0.001 U	0.001 U	0.00021 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Total 1,3-Dichloropropenes	{NA}	0.035	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1.5	0.1 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,3-Dichloropropene	--	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.2 {X}	0.005 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Trichlorofluoromethane	{NA}	7.3	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vinyl acetate	{NA}	1.8 {I}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.015	0.002 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Xylenes, Total	0.035 {I}	0.28 {I,E}	0.0006 J	0.002 U	0.00055 J	0.00053 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U

See Notes in Table 7.

Table 3. Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-9CAUG* 12/15/06	X-10AR2 12/13/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06	X-16A 12/12/06	X-16B 12/12/06
Volatiles									
1,1,1,2-Tetrachloroethane	{ID (X)}	0.32	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.2	0.2 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,1,2,2-Tetrachloroethane	0.078 {X}	0.035	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.032	170 {S}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,1,2-Trichloroethane	0.33 {X}	0.005 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,1-Dichloroethane	0.74	2.5	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,1-Dichloroethene	0.065 {I,X}	0.007 {I,A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,2,3-Trichloropropane	{NA}	0.12	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0.03	0.07 {A}	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U
1,2-Dibromo-3-chloropropane	{NA}	0.0002 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,2-Dibromoethane	0.0002 {X}	0.00005 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,2-Dichlorobenzene	0.016	0.6 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,2-Dichloroethane	0.36 {I,X}	0.005 {I,A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,2-Dichloroethene, Total	- -	- -	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.29 {I,X}	0.005 {I,A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,3-Dichlorobenzene	0.038	0.019	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,4-Dichlorobenzene	0.013	0.075 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
1,4-Dioxane	2.8 {I,X}	0.35 {I}	NA	NA	NA	NA	NA	NA	NA
2-Butanone	2.2 {I}	38 {I}	0.025 U	0.025 UJ [0.025 UJ]	0.025 U	0.025 UJ	0.025 U [0.00059 J]	0.025 U	0.025 U
2-Chloro-1,3-butadiene	- -	- -	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	{NA}	2.9	0.05 U	0.05 UJ [0.05 UJ]	0.05 U	0.05 UJ	0.05 U [0.05 U]	0.05 U	0.05 U
3-Chloro-1-propene	- -	- -	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	{ID}	5.2 {I}	0.05 U	0.05 U [0.05 U]	0.05 U	0.05 U	0.05 U [0.05 U]	0.05 U	0.05 U
Acetone	1.7 {I}	2.1 {I}	0.025 UJ	0.025 UJ [0.025 UJ]	0.025 UJ	0.025 UJ	0.025 UJ [0.025 UJ]	0.025 UJ	0.025 UJ
Acetonitrile	{NA}	0.4	NA	NA	NA	NA	NA	NA	NA
Acrolein	{NA}	0.33 {I}	NA	NA	NA	NA	NA	NA	NA
Acrylonitrile	0.0049 {I,X}	0.011 {I}	NA	NA	NA	NA	NA	NA	NA
Benzene	0.2 {I,X}	0.005 {I,A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Bromodichloromethane	{ID}	0.08 {A,W}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Bromoform	{ID}	0.08 {A,W}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Bromomethane	0.035	0.029	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Carbon disulfide	{ID}	2.3 {I,R}	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U
Carbon tetrachloride	0.045 {X}	0.005 {A}	0.001 U	0.001 UJ [0.001 UJ]	0.001 U	0.001 UJ	0.001 U [0.001 U]	0.001 U	0.001 U
Chlorobenzene	0.047 {I}	0.1 {I,A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U

See Notes in Table 7.

Table 3. Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-9CAUG* 12/15/06	X-10AR2 12/13/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06	X-16A 12/12/06	X-16B 12/12/06
Volatiles									
Chlorodibromomethane	{ID}	0.08 {A,W}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Chloroethane	{ID}	1.7	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Chloroform	0.17 {X}	0.08 {A,W}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Chloromethane	{ID}	1.1 {I}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
cis-1,2-Dichloroethene	0.62	0.07 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.00032 J	0.001 U
cis-1,3-Dichloropropene	- -	- -	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Cyclohexane	- -	- -	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Dibromomethane	{NA}	0.23	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	{ID}	4.8	0.001 UJ	0.001 UJ [0.001 UJ]	0.001 UJ	0.001 UJ	0.001 UJ [0.001 UJ]	0.001 U	0.001 U
Ethylbenzene	0.018 {I}	0.074 {I,E}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Iodomethane	- -	- -	NA	NA	NA	NA	NA	NA	NA
Isobutyl alcohol	{NA}	6.7 {I}	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	{ID}	2.3	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U
Methacrylonitrile	- -	- -	NA	NA	NA	NA	NA	NA	NA
Methyl acetate	- -	- -	0.01 U	0.01 U [0.01 U]	0.01 U	0.01 U	0.01 U [0.01 U]	0.01 U	0.01 U
Methyl methacrylate	- -	- -	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	0.73 {X}	0.04 {E}	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U
Methylcyclohexane	- -	- -	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Methylene chloride	0.94 {X}	0.005 {A}	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U
Propionitrile	- -	- -	NA	NA	NA	NA	NA	NA	NA
Pyridine	{NA}	0.021 {I}	NA	NA	NA	NA	NA	NA	NA
Styrene	0.08	0.1 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Tetrachloroethene	0.045 {X}	0.005 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Toluene	0.14 {I}	0.79 {I,E}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Total 1,3-Dichloropropenes	{NA}	0.035	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	1.5	0.1 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
trans-1,3-Dichloropropene	- -	- -	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
trans-1,4-Dichloro-2-butene	- -	- -	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	0.2 {X}	0.005 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Trichlorofluoromethane	{NA}	7.3	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Vinyl acetate	{NA}	1.8 {I}	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	0.015	0.002 {A}	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.007	0.001 U
Xylenes, Total	0.035 {I}	0.28 {I,E}	0.002 U	0.002 U [0.002 U]	0.002 U	0.002 U	0.002 U [0.002 U]	0.00052 J	0.00052 J

See Notes in Table 7.

Table 4. Semivolatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	MW-117S2 12/13/06	MW-118S2 12/14/06	X-2B 12/12/06	X-2C 12/12/06	X-2DAUG 12/13/06	X-9BR* 12/15/06	X-9CAUG* 12/15/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06
Semivolatiles												
1,1'-Biphenyl	--	--	0.01 U [0.01 U]	0.01 U	0.012 U	0.012 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
1,2,4,5-Tetrachlorobenzene	0.0029 {X}	1.3 {S}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0.03	0.07 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0.016	0.6 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trinitrobenzene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0.038	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dinitrobenzene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0.013	0.075 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Naphthoquinone	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1-Naphthylamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(dichloropropane)	--	--	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,3,4,6-Tetrachlorophenol	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	{NA}	2.1	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,4,6-Trichlorophenol	0.0044	0.47	0.004 U [0.004 U]	0.004 U	0.0048 U	0.0048 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
2,4-Dichlorophenol	0.019	0.21	0.01 U [0.01 U]	0.01 U	0.012 U	0.012 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
2,4-Dimethylphenol	0.38	1	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,4-Dinitrophenol	--	--	0.02 U [0.02 U]	0.02 U	0.024 U	0.024 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2,4-Dinitrotoluene	{NA}	0.032	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2,6-Dichlorophenol	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	--	--	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Acetylaminofluorene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	{NA}	5.2	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Chlorophenol	0.022	0.13	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Methylnaphthalene	{ID}	0.75	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Methylphenol	--	--	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Naphthylamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	--	--	0.02 U [0.02 U]	0.02 U	0.024 U	0.024 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
2-Nitrophenol	{ID}	0.058	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
2-Picoline	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	0.0003 {X}	0.0043	R [0.004 U]	0.004 U	0.0048 U	0.0048 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
3,3'-Dimethylbenzidine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylcholanthrene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Methylphenol	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	--	--	0.02 U [0.02 U]	0.02 U	0.024 U	0.024 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4,6-Dinitro-2-methylphenol	{NA}	0.02 {M}	0.02 U [0.02 U]	0.02 U	0.024 U	0.024 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4-Aminobiphenyl	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	--	--	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Chloro-3-methylphenol	0.0074	0.42	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Chloroaniline	--	--	0.01 U [0.01 U]	0.01 U	0.012 U	0.012 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
4-Chlorophenyl phenyl ether	--	--	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

See Notes in Table 7.

Table 4. Semivolatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	MW-117S2 12/13/06	MW-118S2 12/14/06	X-2B 12/12/06	X-2C 12/12/06	X-2DAUG 12/13/06	X-9BR* 12/15/06	X-9CAUG* 12/15/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06
Semivolatiles												
4-Methylphenol	- -	- -	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
4-Nitroaniline	- -	- -	0.02 U [0.02 U]	0.02 U	0.024 U	0.024 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4-Nitrophenol	- -	- -	0.02 U [0.02 U]	0.02 U	0.024 U	0.024 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
4-Nitroquinoline1-oxide	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5-Nitro-o-toluidine	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7,12-Dimethylbenz(a)anthracene	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	0.019	3.8	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acenaphthylene	{ID}	0.15	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Acetophenone	{ID}	4.4	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
alpha,alpha-Dimethyl phenethylamine	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aniline	0.004	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	{ID}	0.043 {S}	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Atrazine	0.0073 {X}	0.003 {A}	0.003 U [0.003 U]	0.003 U	0.0036 U	0.0036 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Benzaldehyde	- -	- -	0.01 U [0.01 U]	0.01 U	0.012 U	0.012 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Benzo(a)anthracene	{ID}	0.0085 {Q}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(a)pyrene	{ID}	0.005 {Q,A}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(b)fluoranthene	{ID}	0.0015 {Q,S,AA}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(g,h,i)perylene	{NA}	0.001 {M}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzo(k)fluoranthene	{NA}	0.001 {Q,M}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Benzyl alcohol	{NA}	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	- -	- -	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
bis(2-Chloroethyl)ether	0.015 {I,X}	0.0083 {I}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
bis(2-Ethylhexyl)phthalate	0.032	0.006 {A}	0.005 U [0.0011 J]	0.005 U	0.006 U	0.006 U	0.00092 J	0.005 U	0.005 U	0.005 U	0.005 U	0.0012 J
Butyl benzyl phthalate	0.014 {X}	2.7 {S}	0.005 U [0.005 U]	0.005 UJ	0.006 U	0.006 U	0.005 UJ	0.005 UJ	0.005 UJ	0.005 UJ	0.005 U	0.005 UJ
Caprolactam	{NA}	17	0.0011 J [0.00067 J]	0.01 U	0.012 U	0.0026 J	0.01 U	0.01 U	0.01 U	0.0033 J	0.0087 J	0.0037 J
Carbazole	0.01 {M}	0.35	0.01 U [0.01 U]	0.01 U	0.012 U	0.012 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Chrysene	{ID}	0.0016 {Q,S}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cresols, Total	0.071 {J}	1 {J}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diallate	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	{ID}	0.002 {Q,M}	0.002 U [0.002 U]	0.002 U	0.0024 U	0.0024 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Dibenzofuran	0.004	{ID}	0.004 U [0.004 U]	0.004 U	0.0048 U	0.0048 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Diethyl phthalate	0.11	16	0.005 U [0.005 U]	R	0.006 U	0.006 U	R	R	R	R	0.005 U	R
Dimethyl phthalate	{NA}	210	0.005 U [0.005 U]	R	0.006 U	0.006 U	R	R	R	R	0.005 U	R
Di-n-butyl phthalate	0.0097	2.5	0.005 U [0.005 U]	0.005 UJ	0.006 U	0.006 U	0.005 UJ	0.005 UJ	0.005 UJ	0.005 UJ	0.005 U	0.005 UJ
Di-n-octyl phthalate	{ID}	0.38	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Diphenylamine	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methacrylate	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl methanesulfonate	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	0.0016	0.21 {S}	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Fluorene	0.012	2 {S}	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U

See Notes in Table 7.

Table 4. Semivolatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: / Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	MW-117S2 12/13/06	MW-118S2 12/14/06	X-2B 12/12/06	X-2C 12/12/06	X-2DAUG 12/13/06	X-9BR* 12/15/06	X-9CAUG* 12/15/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06
Semivolatiles												
Hexachlorobenzene	0.0002 {M}	0.001 {A}	0.0002 U [0.0002 U]	0.0002 U	0.00024 U	0.00024 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Hexachlorobutadiene	0.00005	0.042	0.001 U [0.001 U]	0.001 U	0.0012 U	0.0012 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Hexachlorocyclopentadiene	{ID}	0.05 {A}	R [R]	R	R	R	R	R	R	R	R	R
Hexachloroethane	0.0067 {X}	0.021	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Hexachloropropene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	{ID}	0.002 {Q,M}	0.002 U [0.002 U]	0.002 U	0.0024 U	0.0024 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Isophorone	0.57 {X}	3.1	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Isopropylbenzene	{ID}	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isosafrole, Total	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methapyrilene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl methanesulfonate	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	0.013	1.5	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Nitrobenzene	0.18 {I,X}	0.0096 {I}	0.003 U [0.003 U]	0.003 U	0.0036 U	0.0036 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
N-Nitrosodiethylamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-butylamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	{NA}	0.005 {M}	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
N-Nitrosodiphenylamine	{NA}	1.1	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
N-Nitrosomethylethylamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosomorpholine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopiperidine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosopyrrolidine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Toluidine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Chlorobenzilate	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Dimethylaminoazobenzene	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorobenzene	0.005 {M}	0.017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloroethane	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachloronitrobenzene	{NA}	0.032 {S}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	0.0028 {G,X}	0.001 {A}	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Phenacetin	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	0.0024	0.15	0.002 U [0.002 U]	0.002 U	0.0024 U	0.0024 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Phenol	0.21	13	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
p-Phenylene diamine	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pronamide	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	{ID}	0.14 {S}	0.005 U [0.005 U]	0.005 U	0.006 U	0.006 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Safrole, Total	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetraethyl Dithiopyrophosphate	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes in Table 7.

Table 5. TAL Inorganic Constituents in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria	MW-117S1 12/13/06	MW-117S2 12/13/06	MW-117WT 12/13/06	MW-118S1 12/14/06	MW-118S2 12/14/06	MW-118WT 12/14/06	MW-128SI 12/12/06	MW-128WT 12/13/06	X-1A 12/12/06	X-1B 12/12/06	X-1CR2 12/12/06	X-2A 12/12/06	X-2B 12/12/06	X-2C 12/12/06
Inorganics																
Aluminum	{NA}	0.24 {B,V}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	0.13 {X}	0.006 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.150 {X}	0.010 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	1.2 {B,G,X}	2 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.026 {G}	0.004 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.0045 {B,G,X}	0.005 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (Total)	0.16	0.1 {A,B,H}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	0.1	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.02 {B,G}	1 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide, Total	0.0052 {P,R}	0.2 {P,R,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	{NA}	13 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.028 {B,G,X}	0.006 {B,L}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	{NA}	1,100 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	4.4 {B,G,X}	0.050 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.0000013 {B,Z}	0.002 {A,B,Z}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.12 {B,G}	0.1 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	0.0002 {B,M}	0.098 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	{NA}	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	0.012	0.062	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	0.26 {B,G}	20 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																
Aluminum	{NA}	0.24 {B,V}	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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Antimony	0.13 {X}	0.006 {A}	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	0.150 {X}	0.010 {A}	0.005 U	**0.0135**	0.005 U	0.005 U	0.0068	0.005 U	0.0056	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	**0.0138**
Barium	1.2 {B,G,X}	2 {B,A}	**2.01**	1.09	**2.71**	0.727	0.229	1.4	0.368	0.128	0.096 J	0.776	0.0259 J	0.236	0.238	0.284
Beryllium	0.026 {G}	0.004 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	0.0045 {B,G,X}	0.005 {B,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0024	0.001 U	0.001 U	0.001 U
Calcium	- -	- -	152	127	788	145	105	670	329	53.5	64.5	291	67	51.3	150	172
Chromium (Total)	0.16	0.1 {A,B,H}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	0.1	0.1	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0017 J	0.0028 J	0.006 J	0.0016 J	0.0066 J	0.007 U	0.0027 J	0.0035 J	0.0014 J
Copper	0.02 {B,G}	1 {B,E}	0.00084 J	0.00077 J	0.0024	0.002 U	0.00062 J	0.0016 J	0.00092 J	0.00053 J	0.002 U	0.00089 J	0.0046	0.002 U	0.002 U	0.002 U
Cyanide, Total	0.0052 {P,R}	0.2 {P,R,A}	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0037 J	0.006 J	0.018	0.01 U	0.01 U	0.01 U	0.01 U
Iron	{NA}	13 {B,E}	8.98	7.54	**105**	5.93	2.16	**39.2**	0.284	4.31	**13.5**	**21.7**	0.1 U	0.296	10.9	**18.2**
Lead	0.028 {B,G,X}	0.006 {B,L}	0.003 U	0.003 U	0.0019 J	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Magnesium	{NA}	1,100 {B}	47.6	45.1	387	46.1	40.2	206	8.96	63.9	32.8	85.7	31.9	13.7	36.8	44.7
Manganese	4.4 {B,G,X}	0.050 {B,E}	0.329	0.084	**4**	0.401	0.0761	1.05	0.0164	0.128	0.529	1.17	0.0234	0.289	0.538	0.814
Mercury	0.0000013 {B,Z}	0.002 {A,B,Z}	0.0002 U	0.0002 U	0.00011 J	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	0.12 {B,G}	0.1 {B,A}	0.02 U	0.02 U	0.0187 J	0.02 U	0.02 U	0.0253	0.0255	0.0278	0.02 U	0.0257	0.02 U	0.02 U	0.02 U	0.02 U
Potassium	- -	- -	2.41	3.1	44.7	2.4	3.34	19.2	9.15	107	46.5	34.5	2.52	28.6	1.3	2.53
Selenium	0.005 {B}	0.05 {B,A}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Silver	0.0002 {B,M}	0.098 {B}	R	R	R	0.0002 UJ	0.0002 UJ	0.0002 UJ	R	R	R	R	R	R	R	R
Sodium	{NA}	350	118	195	**531**	115	272	**408**	**423**	**358**	180	**716**	129	274	325	244
Thallium	0.0037 {B,I, X}	0.002 {B,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.000025 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Vanadium	0.012	0.062	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U
Zinc	0.26 {B,G}	20 {B,E}	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0072 J	0.0131 J	0.02 U	0.01 J	0.0979	0.0124 J	0.0698	0.02 U

See Notes in Table 7.

Table 5. TAL Inorganic Constituents in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria	X-2DAUG 12/13/06	X-4A* 12/14/06	X-9AR* 12/15/06	X-9BR* 12/15/06	X-9CAUG* 12/15/06	X-10AR2 12/13/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06	X-16A 12/12/06	X-16B 12/12/06
Inorganics													
Aluminum	{NA}	0.24 {B,V}	NA	0.2 U	0.2 U	0.2 U [0.2 U]	0.2 U	NA	NA	NA	NA	NA	NA
Antimony	0.13 {X}	0.006 {A}	NA	0.002 U	0.002 U	0.002 U [0.002 U]	0.002 U	NA	NA	NA	NA	NA	NA
Arsenic	0.150 {X}	0.010 {A}	NA	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	NA	NA	NA	NA	NA	NA
Barium	1.2 {B,G,X}	2 {B,A}	NA	0.0682 J	0.094 J	0.143 [0.148]	0.176	NA	NA	NA	NA	NA	NA
Beryllium	0.026 {G}	0.004 {A}	NA	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	NA	NA	NA	NA	NA	NA
Cadmium	0.0045 {B,G,X}	0.005 {B,A}	NA	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	NA	NA	NA	NA	NA	NA
Calcium	- -	- -	NA	165	168	117 [121]	126	NA	NA	NA	NA	NA	NA
Chromium (Total)	0.16	0.1 {A,B,H}	NA	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	NA	NA	NA	NA	NA	NA
Cobalt	0.1	0.1	NA	0.007 U	0.007 U	0.007 U [0.007 U]	0.007 U	NA	NA	NA	NA	NA	NA
Copper	0.02 {B,G}	1 {B,E}	NA	0.00092 J	0.0018 J	0.002 U [0.00058 J]	0.002 U	NA	NA	NA	NA	NA	NA
Cyanide, Total	0.0052 {P,R}	0.2 {P,R,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	{NA}	13 {B,E}	NA	0.045 J	1.09	3.07 [3.12]	6.92	NA	NA	NA	NA	NA	NA
Lead	0.028 {B,G,X}	0.006 {B,L}	NA	0.003 U	0.003 U	0.003 U [0.003 U]	0.003 U	NA	NA	NA	NA	NA	NA
Magnesium	{NA}	1,100 {B}	NA	32.7	43.4	36.4 [37.6]	38.7	NA	NA	NA	NA	NA	NA
Manganese	4.4 {B,G,X}	0.050 {B,E}	NA	0.015 U	0.157	0.777 [0.801]	0.632	NA	NA	NA	NA	NA	NA
Mercury	0.0000013 {B,Z}	0.002 {A,B,Z}	NA	0.00011 J	0.0002 U	0.0002 U [0.0002 U]	0.0002 U	NA	NA	NA	NA	NA	NA
Nickel	0.12 {B,G}	0.1 {B,A}	NA	0.02 U	0.02 U	0.02 U [0.02 U]	0.02 U	NA	NA	NA	NA	NA	NA
Potassium	- -	- -	NA	0.329 J	1 U	1.37 [1.37]	0.76 J	NA	NA	NA	NA	NA	NA
Selenium	0.005 {B}	0.05 {B,A}	NA	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	NA	NA	NA	NA	NA	NA
Silver	0.0002 {B,M}	0.098 {B}	NA	0.0002 U	0.0002 U	0.0002 U [0.0002 U]	0.0002 U	NA	NA	NA	NA	NA	NA
Sodium	{NA}	350	NA	21.3	55	102 [102]	59.4	NA	NA	NA	NA	NA	NA
Thallium	0.0037 {B,I, X}	0.002 {B,A}	NA	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	NA	NA	NA	NA	NA	NA
Vanadium	0.012	0.062	NA	0.004 U	0.004 U	0.004 U [0.004 U]	0.004 U	NA	NA	NA	NA	NA	NA
Zinc	0.26 {B,G}	20 {B,E}	NA	0.0115 J	0.02 U	0.02 U [0.02 U]	0.02 U	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved													
Aluminum	{NA}	0.24 {B,V}	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	0.2 U [0.2 U]	0.2 U	0.2 U
Antimony	0.13 {X}	0.006 {A}	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U [0.002 U]	0.002 U	0.002 U	0.002 U [0.002 U]	0.002 U	0.002 U
Arsenic	0.150 {X}	0.010 {A}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U [0.005 U]	0.0276	0.0278	0.0198 [0.0199]	0.005 U	0.005 U
Barium	1.2 {B,G,X}	2 {B,A}	0.313	0.0648 J	0.0912 J	0.153	0.173	0.0346 J [0.0338 J]	0.598	0.928	0.41 [0.418]	0.26	0.0274 J
Beryllium	0.026 {G}	0.004 {A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Cadmium	0.0045 {B,G,X}	0.005 {B,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.00067 J
Calcium	- -	- -	240	159	166	112	124	152 [148]	211	256	207 [212]	360	59
Chromium (Total)	0.16	0.1 {A,B,H}	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U
Cobalt	0.1	0.1	0.0013 J	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U [0.007 U]	0.007 U	0.0027 J	0.0017 J [0.007 U]	0.007 U	0.0012 J
Copper	0.02 {B,G}	1 {B,E}	0.00052 J	0.0012 J	0.00059 J	0.002 U	0.002 U	0.0011 J [0.00093 J]	0.002 U	0.001 J	0.00077 J [0.0006 J]	0.0021	0.0027
Cyanide, Total	0.0052 {P,R}	0.2 {P,R,A}	0.01 U	0.0079 J	0.01 U	0.01 U	0.01 U	0.01 U [0.01 U]	0.01 U	0.01 U	0.01 U [0.01 U]	0.0053 J	0.01 U
Iron	{NA}	13 {B,E}	14.8	0.1 U	0.965	4.45	6.73	0.46 [0.602]	30.5	19.7	29 [29.7]	8.25	0.1 U
Lead	0.028 {B,G,X}	0.006 {B,L}	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U [0.003 U]	0.003 U	0.003 U	0.003 U [0.003 U]	0.003 U	0.003 U
Magnesium	{NA}	1,100 {B}	57	31.8	42.9	34.5	38.1	42.8 [41.9]	58.4	101	53.4 [54.6]	127	44.6
Manganese	4.4 {B,G,X}	0.050 {B,E}	1.34	0.015 U	0.153	0.717	0.63	2.7 [2.63]	0.691	0.311	0.691 [0.705]	0.936	0.0121 J
Mercury	0.0000013 {B,Z}	0.002 {A,B,Z}	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U [0.0002 U]	0.0002 U	0.0002 U	0.0002 U [0.0002 U]	0.0002 U	0.0002 U
Nickel	0.12 {B,G}	0.1 {B,A}	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U [0.02 U]	0.02 U	0.0111 J	0.02 U [0.02 U]	0.02 U	0.02 U
Potassium	- -	- -	2.15	0.301 J	1 U	1.48	0.755 J	8.17 [8.09]	2.53	19.4	1.92 [1.96]	1.58	3.5
Selenium	0.005 {B}	0.05 {B,A}	0.005 U	0.005 U	0.005 U	0.0057 U	0.005 U	0.005 U [0.005 U]	0.005 U	0.005 U	0.005 U [0.005 U]	0.0065 U	0.005 U
Silver	0.0002 {B,M}	0.098 {B}	R	0.0002 UJ	0.0002 UJ	0.0002 UJ	0.0002 UJ	R [R]	0.0002 UJ	R	0.0002 UJ [0.0002 UJ]	R	R
Sodium	{NA}	350	159	20.4	54.5	125	58.2	23.5 [23.2]	192	363	196 [200]	138	92
Thallium	0.0037 {B,I, X}	0.002 {B,A}	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U	0.001 U [0.001 U]	0.001 U	0.001 U
Vanadium	0.012	0.062	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U	0.004 U [0.004 U]	0.004 U	0.004 U	0.004 U [0.004 U]	0.004 U	0.004 U
Zinc	0.26 {B,G}	20 {B,E}	0.02 U	0.0088 J	0.02 U	0.02 U	0.02 U	0.0426 [0.0458]	0.02 U	0.02 U	0.02 U [0.02 U]	0.02 U	0.011 J

See Notes in Table 7.

Table 6. PCBs and Indicator Parameters in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	Units	MW-117S1 12/13/06	MW-117S2 12/13/06	MW-117WT 12/13/06	MW-118S1 12/14/06	MW-118S2 12/14/06	MW-118WT 12/14/06	MW-128SI 12/12/06	MW-128WT 12/13/06	X-1A 12/12/06	X-1B 12/12/06	X-1CR2 12/12/06	X-2A 12/12/06
PCBs															
PCB-1016	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCB-1221	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCB-1232	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCB-1242	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCB-1248	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCB-1254	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCB-1260	- -	- -	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.0002 {J,T,M}	0.0005 {J,T,A}	mg/L	NA	0.0002 U [0.0002 U]	NA	NA	0.0002 U	NA	NA	NA	NA	NA	NA	NA
PCBs-Dissolved															
PCB-1016	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1221	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1232	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1242	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.0002 {J,T,M}	0.0005 {J,T,A}	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous															
Alkalinity, Carbonate	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	{FF}	250 {E}	mg/L	**267**	**368**	**3,680**	**290**	**437**	**2,370**	**1,250**	**704**	153	**1,100**	152	**500**
Demand, Biochemical Oxygen	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Demand, Chemical Oxygen	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	{NA}	10 {B,A,N}	mg/L	0.1 U	0.1 U	0.75	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.15	0.1 U
Nitrite as N	{NA}	1 {B,A,N}	mg/L	0.1 U	0.1 U	**3.6**	0.16	0.25	**1.9**	0.93 J	0.32	0.1 U	0.36 J	0.033 J	0.23
Nitrogen, Ammonia	0.053 {CC}	10 {N}	mg/L	8.2	3.9	**75**	8	3	**42**	5	**110**	**37**	2.5	0.2 U	9
pH	- -	- -	S.U.	7.1 J	NA	NA	7.1 J	7.4 J	6.6 J	8.5 J	8 J	7.3 J	7 J	7.8 J	8.2 J
Phenolics	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorous, Total	1 {EE}	240	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Solids, Filterable	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Solids, Total Suspended	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	{NA}	250 {E}	mg/L	1 U	10.9	0.27 J	1 U	47.4	25.3	36.3	91.5	1 U	0.84 J	230	0.21 J
Sulfide (S)	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	500	500 {E}	mg/L	**960**	**1,000**	**7,800**	**1,000**	**1,200**	**6,800**	**3,700**	**1,400**	**890**	**3,500**	**760**	**1,000**
Total Organic Carbon	- -	- -	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes in Table 7.

Table 6. PCBs and Indicator Parameters in Groundwater, Green Point Landfill Environmental Monitoring Program, December 2006

Sample ID: Date Collected:	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	Units	X-2B 12/12/06	X-2C 12/12/06	X-2DAUG 12/13/06	X-4A* 12/14/06	X-9AR* 12/15/06	X-9BR* 12/15/06	X-9CAUG* 12/15/06	X-10AR2 12/13/06	X-10BR 12/15/06	X-10CR 12/13/06	X-10DAUG 12/14/06	X-16A 12/12/06	X-16B 12/12/06
PCBs																
PCB-1016	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCB-1221	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCB-1232	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCB-1242	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCB-1248	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCB-1254	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCB-1260	--	--	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
Total PCBs	0.0002 {J,T,M}	0.0005 {J,T,A}	mg/L	0.0002 U	0.0002 U	0.0002 U	NA	NA	0.0002 U	0.0002 U	NA	0.0002 U	0.0002 U	0.0002 U	NA	NA
PCBs-Dissolved																
PCB-1016	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1221	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1232	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1242	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1248	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.0002 {J,T,M}	0.0005 {J,T,A}	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miscellaneous																
Alkalinity, Carbonate	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Alkalinity, Total	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	{FF}	250 {E}	mg/L	**429**	**352**	**555**	18	29.7	191	130	1.7 U [1.6 U]	**505**	**864**	**505 [508]**	**514**	47.3
Demand, Biochemical Oxygen	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Demand, Chemical Oxygen	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Total	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate as N	{NA}	10 {B,A,N}	mg/L	0.1 U	0.1 U	0.1 U	0.16	0.1 U	0.1	0.1 U	0.1 U [0.1 U]	0.1 U	0.1 U	0.1 U [0.1 U]	0.051 J	0.43
Nitrite as N	{NA}	1 {B,A,N}	mg/L	0.21	0.17	0.1 U	0.1 U	0.1 U	0.18	0.11	0.1 U [0.1 U]	0.3	0.34	0.32 [0.24]	0.26	0.027 J
Nitrogen, Ammonia	0.053 {CC}	10 {N}	mg/L	0.4	2.7	0.6	0.2 U	0.2 U	**5.9**	**2.9**	0.2 U [0.3 U]	6	**21**	4.3 [4.5]	0.6	0.2 U
pH	--	--	S.U.	7.2 J	7 J	7 J	7.3 J	7.2 J	7.2 J	7.1 J	7.1 J [7.1 J]	6.8 J	NA	6.9 J [6.8 J]	7 J	8 J
Phenolics	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorous, Total	1 {EE}	240	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Solids, Filterable	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Solids, Total Suspended	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	{NA}	250 {E}	mg/L	1 U	1 U	1 U	33.8	29.2	1 U	1 U	180 [179]	1 U	4	1 U [1 U]	423	192
Sulfide (S)	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	500	500 {E}	mg/L	**1,600**	**1,400**	**1,700**	**570**	**790**	**830**	**690**	**750 [740]**	**1,600**	**2,400**	**1,500 [1,700]**	**2,700**	**650**
Total Organic Carbon	--	--	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See Notes in Table 7.

Table 7. Notes For Groundwater Analytical Data Tables, Green Point Landfill Environmental Monitoring Program, December 2006

General Notes:

Samples were collected by ARCADIS BBL, and submitted STL Laboratories in North Canton, Ohio for analysis.
Duplicate results are presented in brackets.
Groundwater concentrations are presented in milligram per liter (mg/L), except where noted.
Total PCBs reported as the sum of PCB Aroclors.
*Monitoring well data compared to Groundwater/Surface water Interface (GSI) criteria for locations adjacent to the Saginaw River (X-4A, X-4CAUG, X-9AR, X-9BR, X-9CAUG).
Shaded and bolded cells represent constituent concentrations that exceed at least one of the listed Michigan Part 201 Criteria:

For Groundwater:
RDW = Residential Drinking Water criteria, updated January 2006.
IDW = Industrial Drinking Water criteria, updated January 2006.
GSI = Groundwater/Surface Water Interface criteria, updated January 2006.

Data Qualifiers:

ND = Not detected. The value in parentheses represents the associated detection limit.
NA = Not analyzed for this constituent.
B = Inorganics: the detected analyte is and estimated value between the instrument detection limit and the reporting limit.
B = Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ = The detected analyte is an estimated concentration between the IDL and the RL.
U = The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ = The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
D = Concentration is based on a diluted sample analysis.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
R = Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.

MDEQ Criteria Qualifiers:

ID = *Inadequate data* to develop criterion.
NA = Criterion or value is *not available* or, as is the case for Csat, *not applicable*.
NLV = Hazardous substance is *not likely to volatilize* under most conditions.

(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.
(C) Value presented is a screening level based on the chemical-specific generic soil saturation concentration 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	Chemical Abstract Service Number	Residential Health-Based Drinking Water Value (ug/L)	Industrial-Commercial Health-Based Drinking Water Value (ug/L)
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

MDEQ Criteria Qualifiers (continued):

(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.

Hazardous Substance	FCV Formula (ug/L)	FCV Conversion Factor	WV (ug/L)	HNDV (ug/L)
Acetate	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[x]	EXP(1.005*(pH)-5.134)	NA	NA	2.8
Zinc	(EXP(0.8473*(LnH)+0.884))*CF	0.986	NA	22,000

where,

[x] =The GSI criterion developed here may not be protective for surface water that is used as a drinking water source.

(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),

(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:

Acceptable Combinations of Lead in Drinking Water and Soil

Drinking Water Concentration (ug/L)	Soil Concentration (mg/kg)
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

Table 7. Notes For Groundwater Analytical Data Tables, Green Point Landfill Environmental Monitoring Program, December 2006

MDEQ Criteria Qualifiers (continued):

(M) Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

(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)

(S) Criterion defaults to the hazardous substance-specific water solubility limit.

(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 (HDV) (ug/L)
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
Bromate	15541454	10 (M); 0.5	200 (M); 10
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

{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.

References

REFERENCES
ANNUAL PROGRESS REPORT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY, AND
REALM, INC. GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

ARCADIS BBL (ABBL), January 2007. *Monthly Report # 145 (December 2006)*, January 12, 2007.

ARCADIS BBL (ABBL), February 2007. *Monthly Report #146 (January 2007)*, February 15, 2007.

ARCADIS BBL (ABBL), March 2007. *Monthly Report #147 (February 2007)*, March 15, 2007.

ARCADIS BBL (ABBL), April 2007. *Monthly Report #148 (March 2007)*, April 13, 2007.

ARCADIS BBL (ABBL), May 2007a. *Semi-Annual Groundwater Monitoring Report, Interim Response Action, Former UST #7 Area, General Motors Corporation Saginaw Malleable Iron Plant, Saginaw, Michigan.* May 10, 2007.

ARCADIS BBL (ABBL), May 2007b. *Monthly Report #149 (April 2007)*, May 14, 2007.

ARCADIS BBL (ABBL), June 2007. *Monthly Report #150 (May 2007)*, June 15, 2007.

ARCADIS BBL (ABBL), July 2007a. *Monthly Report #151 (July 2007)*, July 3, 2007.

ARCADIS BBL (ABBL), July 2007b. *Work Plan (Revision 1) for Additional Site Investigation for Remedial Action Plan, GM Saginaw Malleable Iron and Green Point Landfill, Saginaw, Michigan.* July 24, 2007.

ARCADIS BBL (ABBL), July 2007c. *Environmental Monitoring Program Annual Report, Green Point Landfill, Saginaw, Michigan.* July 25, 2007.

ARCADIS BBL (ABBL), August 2007. *Monthly Report #152 (July 2007)*, August 13, 2007.

ARCADIS BBL (ABBL), September 2007. *Monthly Report #153 (August 2007)*, September 12, 2007.

ARCADIS BBL (ABBL), October 2007. *Monthly Report #154 (September 2007)*, October 5, 2007.

Blasland, Bouck & Lee, Inc. (BBL), October 1997. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Remedial Investigation/Feasibility Study Work Plan*, October 1997; schedule tables revised January 1998.

Blasland, Bouck & Lee, Inc. (BBL), July 2001. General Motors Corporation Saginaw Malleable Iron Plant Property, and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Remedial Investigation Report*, July 5, 2001.

Blasland, Bouck & Lee, Inc. (BBL), July 2003a. Report to MDEQ. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Final Feasibility Study Report*, July 29, 2003.

REFERENCES
ANNUAL PROGRESS REPORT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY, AND
REALM, INC. GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Blasland, Bouck & Lee, Inc. (BBL), July 2003b. Report to MDEQ. Subject: *Final Human Health Evaluation Report*, submitted as Appendix A of Final Feasibility Study Report, July 29, 2003.

Blasland, Bouck & Lee, Inc. (BBL), June 2004. Report to MDEQ. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Draft Remedial Action Plan*, June 17, 2004.

Blasland, Bouck & Lee, Inc. (BBL), September 2005. Report to MDEQ. General Motors Corporation Saginaw Malleable Iron Plant, Green Point Landfill and Drum Remediation Area, Saginaw, Michigan, *Remedial Action Plan (revised)*, September 23, 2005.

Blasland, Bouck & Lee, Inc. (BBL), October 2006a. *Monthly Report #142 (September 2006)*, October 13, 2006.

Blasland, Bouck & Lee, Inc. (BBL), October 2006b. *Annual Progress Report*, October 13, 2006.

Blasland, Bouck & Lee, Inc. (BBL), October 2006c. *Work Plan for Additional Site Investigation for Remedial Action Plan, GM Saginaw Malleable Iron Plant and Green Point Landfill, Saginaw, Michigan.* October 31, 2006.

Blasland, Bouck & Lee, Inc. (BBL), October 2006d. *Semi-Annual Groundwater Monitoring Report, Interim Response Action, Former UST #7 Area, General Motors Corporation Saginaw Malleable Iron Plant, Saginaw, Michigan.* October 31, 2006.

Blasland, Bouck & Lee, Inc. (BBL), November 2006. *Monthly Report #143 (October 2006)*, November 15, 2006.

Blasland, Bouck & Lee, Inc. (BBL), December 2006. *Monthly Report #144 (November 2006)*, December 14, 2006.

Brouillet, Allan C. (MDEQ), October 1999. Letter to GM, Subject: *Annual Progress Report, General Motors Corporation Saginaw Malleable Iron Plant, Consent Judgment #98-22686-CE-2*, October 22, 1999.

Coffey, Lisa (BBL), December 2006. Email to Susan Matlock (MDEQ), Subject: Notification of annual Green Point Landfill Groundwater Sampling during week of December 2006.

Hiatt, Cheryl (GM), March 2007. Letter to Susan Kaelber-Matlock (MDEQ) to rescind October 31, 2006 Work Plan, March 27, 2007.

REFERENCES
ANNUAL PROGRESS REPORT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT PROPERTY, AND
REALM, INC. GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Hiatt, Cheryl (GM), May 2007. Email to Susan Kaelber-Matlock (MDEQ), Subject: Agreement to install two monitoring wells in lower sand unit at Green Point Landfill if sand unit is greater that 12 ft thick, June 21, 2007.

Kaelber-Matlock, Susan (MDEQ), November 2006. Email to Cheryl Hiatt (GM) and Kent Bainbridge (WMI), Subject: Preliminary Response to October 31, 2006 Work Plan, November 21, 2006.

Kaelber-Matlock, Susan (MDEQ), December 2006a. Email to Cheryl Hiatt (GM) and Lisa Coffey (ABBL), Subject: Acknowledging the sample notification and well installation along the Saginaw River Berm in spring 2007. December 8, 2006.

Kaelber-Matlock, Susan (MDEQ), December 2006b. Email to Cheryl Hiatt (GM), Subject: Preliminary Response to October 31, 2006 Work Plan. December 18, 2006

Kaelber-Matlock, Susan (MDEQ), December 2006c. Email to Cheryl Hiatt (GM), Kent Bainbridge (WMI), Renee Mietz (GM SMI), David Lipson (ABBL), Lisa Coffey (ABBL) and Allan Brouillet (MDEQ), Subject: Acknowledgement of receipt of Semi-Annual Groundwater Monitoring Report for Former UST #7 Area and agreement to revisions to the sampling program. December 18, 2006.

ARCADIS BBL

Monitoring Well Abandonment Records

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
MONITOR WELL ABANDONMENT RECORD

PROJECT		LOCATION	
Site Name:	GM Saginaw Malleable Iron Plant	County:	Saginaw
Project Number:	64434	¼, ¼, ¼:	NW, SW, SW
MERA #:	NA	Section:	26
MW #:	X-4CAUG	Town:	12 N
MIRIS well ID #:	NA	Range:	4 E
GPS Coord :	N 690703.63 E 13229874.53		

DATES			
Date Installed:	5/5/95	Installed by:	Stearns
Date Abandon:	8/1/07	Abandoned by:	Altech

WELL SPECIFICATIONS			GROUTING INFORMATION		
Well Depth:	23	feet bgs.	2" annulus grouted:		4" annulus grouted:
Screen Depth:	23	feet bgs.	Yes	Yes	
Water Table:	NA		No		
Casing Type:			from (ft.)	0	
Galvanized:			to (ft.)	23	
PVC:	Yes		grout type:	Cement/bentonite slurry	
Stainless Steel:			**Casing**		
Casing I.D.:			Pulled:		
Screen Type:			Cut off:	Yes	
PVC:	Yes		depth bgl (ft.):	16	
Stainless Steel:			hole grouted?	Yes	
Length (ft.):			Grout Type:	Cement/bentonite slurry	

ABANDONMENT METHOD	
Thru casing ?	
Tremie Pipe ?	Yes
Other? (explain):	Overdrilled to remove casing

ABANDON CREW		STATE EMPLOYEE WITNESS	
name: (BBL)	Sandy Wilson	Name:	
name: (Altech)	Jason Hurshman	Name:	
name: (Altech)		Name:	
name:		Name:	

COMMENTS

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
MONITOR WELL ABANDONMENT RECORD

PROJECT		LOCATION	
Site Name:	GM Saginaw Malleable Iron Plant	County:	Saginaw
Project Number:	64434	¼, ¼, ¼:	NW, SW, SW
MERA #:	NA	Section:	26
MW #:	MW-114S4	Town:	12 N
MIRIS well ID #:	NA	Range:	4 E
GPS Coord :	N 691209.33 E 13229827.06		

DATES			
Date Installed:	6/02/95	Installed by:	Rich Bennett/Stearns
Date Abandon:	8/1/07	Abandoned by:	Altech

WELL SPECIFICATIONS		
Well Depth:	50	feet bgs.
Screen Depth:	50	feet bgs.
Water Table:	50	Feet bgs.
Casing Type:		
Galvanized:		
PVC:	Yes	
Stainless Steel:		
Casing I.D.:	2"	
Screen Type:		
PVC:	Yes	
Stainless Steel:		
Length (ft.):	5"	

GROUTING INFORMATION		
2" annulus grouted:		**4" annulus grouted:**
Yes	Yes	
No		
from (ft.)	0	
to (ft.)	50	
grout type:	Cement/bentonite slurry	
Casing		
Pulled:		
Cut off:	Yes	
depth bgl (ft.):	2 ft.	
hole grouted?	Yes	
Grout Type:	Cement/bentonite slurry	

ABANDONMENT METHOD	
Thru casing ?	
Tremie Pipe ?	Yes
Other? (explain):	

ABANDON CREW		STATE EMPLOYEE WITNESS	
name: (BBL)	Sandy Wilson	Name:	
name: (Altech)	Jason Hurshman	Name:	
name: (Altech)		Name:	
name:		Name:	

COMMENTS

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
MONITOR WELL ABANDONMENT RECORD

PROJECT		LOCATION	
Site Name:	GM Saginaw Malleable Iron Plant	County:	Saginaw
Project Number:	64434	¼, ¼, ¼:	NW, SW, SW
MERA #:	NA	Section:	26
MW #:	MW-5B	Town:	12 N
MIRIS well ID #:	NA	Range:	4 E
GPS Coord :	N 692762.894 E 13229530.54		

DATES			
Date Installed:		Installed by:	NA
Date Abandon:	8/1/07	Abandoned by:	Altech

WELL SPECIFICATIONS		GROUTING INFORMATION		
Well Depth:	30 feet bgs.	2" annulus grouted:		4" annulus grouted:
Screen Depth:	30 feet bgs.	Yes	Yes	
Water Table:	NA	No		
Casing Type:		from (ft.)	0	
Galvanized:		to (ft.)	30	
PVC:	Yes	grout type:	Cement/bentonite slurry	
Stainless Steel:		**Casing**		
Casing I.D.:	2"	Pulled:	Yes	
Screen Type:		Cut off:		
PVC:	Yes	depth bgl (ft.):	3.5 ft.	
Stainless Steel:		hole grouted?	Yes	
Length (ft.):	5"	Grout Type:	Cement/bentonite slurry	

ABANDONMENT METHOD	
Thru casing ?	Yes
Tremie Pipe ?	Yes
Other? (explain):	

ABANDON CREW		STATE EMPLOYEE WITNESS	
name: (BBL)	Sandy Wilson	Name:	
name: (Altech)	Jason Hurshman	Name:	
name: (Altech)		Name:	
name:		Name:	

COMMENTS

ARCADIS BBL

Monitoring Well Boring Logs

Date Start/Finish: 7/24/07
Drilling Company: Boart Longyear
Driller's Name: Chris Barden
Drilling Method: Rotosonic
Bit Size: 4.25 inches
Rig Type: Sonic ATV
Sampling Method: Rotosonic

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 27' bgs
Surface Elevation: NA

Descriptions By: Jim Kralik

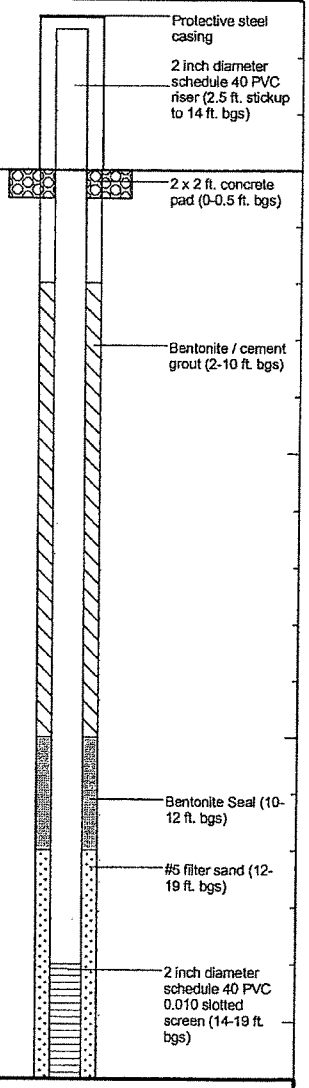
Well/Boring ID: X-4C Aug R

Client: General Motors Corporation

Location: GM SMI
Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description
0	0	1	0-7	7	NA	NR	BGND			Brown (7.5 YR 4/2) Topsoil - fine to medium SAND, some Clay, roots and plant debris, earthy odor, moist to wet.
								SP		Brown (7.5 YR 4/2) SAND, little to some CLAY, poorly sorted, medium dense, some roots and plant debris present, some strong brown (7.5 YR 5/6) weathering present, slight earthy odor, moist.
5	-5							CL		Brown (7.5 YR 4/2) CLAY, little to trace fine Sand, trace fine Gravel, soft to very soft, medium to high plasticity, no odor, wet.
										Dark gray (10 YR 4/1) fine to medium SAND, poorly sorted, medium dense, no odor, wet.
										little to some Clay from 8-10 ft. bgs.
10	-10	2	7-17	10	NA	NR	BGND	SP		little to some Silt from 13 to 15 ft. bgs, shell fragments from 13 to 17 ft. bgs.
15	-15									

Well/Boring Construction



ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Client: General Motors Corporation

Well/Boring ID: X-4C Aug R

Borehole Depth: 27' bgs

Site Location:
GM SMI
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
									slight odor present from 17 to 19 ft. bgs.	2 inch diameter schedule 40 PVC 0.010 slotted screen (14-19 ft. bgs)
									becomes medium to coarse from 18.5 to 19 ft. bgs.	#5 filter sand (12-19 ft. bgs)
									Gray (10 YR 6/1) CLAY, trace very fine to fine Sand and fine subrounded and rounded Gravel, soft to very soft, high plasticity, no odor, wet.	End cap
20 -20										
	3	17-27	10	NA	NR	BGND	CL			Natural collapse and bentonite chips (19-27 ft. bgs)
25 -25										
									End of boring at 27 ft. bgs.	
30 -30										
35 -35										

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Date Start/Finish: 7/23/07 **Drilling Company:** Boart Longyear **Driller's Name:** Chris Barden **Drilling Method:** Rotosonic **Bit Size:** 4.25 inches **Rig Type:** Sonic ATV **Sampling Method:** Rotosonic	**Northing:** NA **Easting:** NA **Casing Elevation:** NA **Borehole Depth:** 57' bgs **Surface Elevation:** NA **Descriptions By:** Jim Kralik	**Well/Boring ID:** X-4D **Client:** General Motors Corporation **Location:** GM SMI Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
											Protective steel casing 2 inch diameter schedule 40 PVC riser (2.5 ft. stickup to 40 ft. bgs)
0	0									Brown (7.5 YR 4/2) Topsoil - fine to medium SAND, some Clay, roots and plant debris present, earthy odor, moist to wet.	2 x 2 ft. concrete pad (0-0.5 ft. bgs)
		1	0-7	7	NA	NR	BGND	SP		Brown (7.5 YR 4/2) fine SAND, poorly sorted, little to some Clay, some strong brown (7.5 YR 5/6) weathering, some plant debris present, medium dense, slight earthy odor, moist.	Bentonite / cement grout (2-31 ft. bgs)
5	-5									becomes dark gray at 6 ft. bgs.	
		2	7-17	9	NA	NR	BGND			Dark gray (10 YR 4/1) fine to medium SAND, poorly sorted, little to some Clay, medium dense, no odor, wet.	
10	-10										
15	-15							SP			

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Client: General Motors Corporation

Well/Boring ID: X-4D

Borehole Depth: 57' bgs

Site Location:
GM SMI
Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
										Dark gray (10 YR 4/1) fine to medium SAND, poorly sorted, little to some Clay, medium dense, no odor, wet. shell fragments present from 17 to 20 ft. bgs.	
20	-20									Gray (10 YR 6/1) CLAY, some very fine to fine Sand, soft, medium to high plasticity, no odor, wet.	2 inch diameter schedule 40 PVC riser (2.5 ft. stickup to 40 ft. bgs)
		3	17-27	10	NA	NR	BGND	CL			Bentonite / cement grout (2-31 ft. bgs)
25	-25									Gray (10 YR 6/1) SILT, some very fine to fine Sand, soft, laminate bedding, numerous plant and shell fragments present, wet.	
								ML			
30	-30									Gray (10 YR 6/1) SANDY CLAY, fine to very fine Sand, trace fine rounded Gravel, soft, medium plasticity, numerous layers of plant debris present, no odor, wet.	
		4	27-37	10	NA	NR	BGND	CL		thin (less than or equal to 2" thick) layers of fine Sand and Silt from 29-37 ft. bgs.	
35	-35										Bentonite Seal (31-36 ft. bgs)

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Client: General Motors Corporation

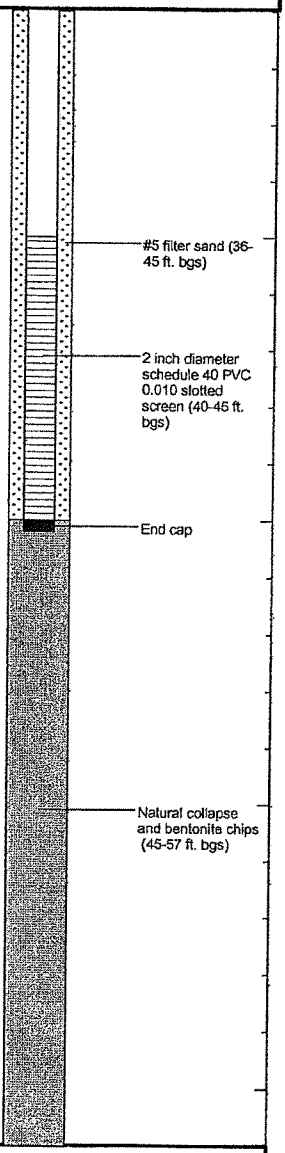
Well/Boring ID: X-4D

Site Location:
GM SMI
Saginaw, Michigan

Borehole Depth: 57' bgs

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description
										thin (less than or equal to 2" thick) layers of fine Sand and Silt from 29-37 ft. bgs.
										Gray (10 YR 6/1) medium SAND, poorly sorted, medium dense, numerous wood and shell fragments present, no odor, wet.
40	-40							SP		
45	-45	5	37-57	20	NA	NR	BGND			Gray (10 YR 6/1) CLAY, some Cobbles and fine to medium Sand, little coarse Sand and fine Gravel, trace wood and shell fragments, soft, high plasticity, no odor, moist.
50	-50									
55	-55									

Well/Boring Construction



ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Client: General Motors Corporation

Well/Boring ID: X-4D

Site Location:
GM SMI
Saginaw, Michigan

Borehole Depth: 57' bgs

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
									Gray (10 YR 6/1) CLAY, some Cobbles and fine to medium Sand, little coarse Sand and fine Gravel, trace wood and shell fragments, soft, high plasticity, no odor, moist.	Natural collapse and bentonite chips (45-57 ft. bgs)
									End of boring at 57 ft. bgs.	
60 -60										
65 -65										
70 -70										
75 -75										

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Date Start/Finish: 7/23/07
Drilling Company: Boart Longyear
Driller's Name: Chris Barden
Drilling Method: Rotosonic
Bit Size: 4.25 inches
Rig Type: Sonic ATV
Sampling Method: Rotosonic

Northing: NA
Easting: NA
Casing Elevation: NA

Borehole Depth: 57' bgs
Surface Elevation: NA

Descriptions By: Jim Kralik

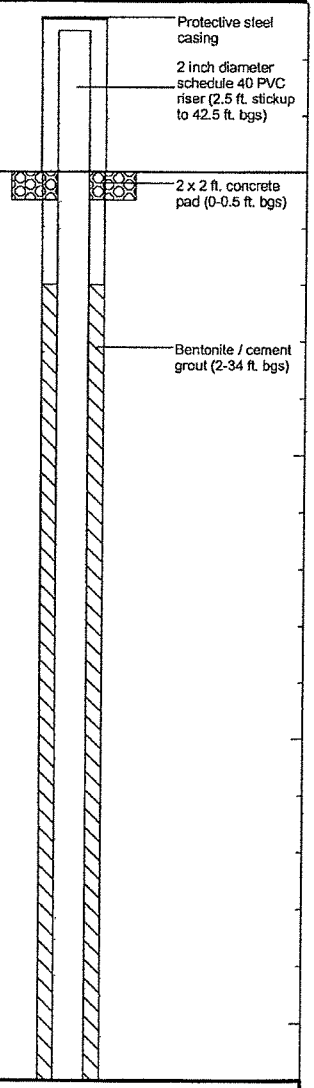
Well/Boring ID: X-9D

Client: General Motors Corporation

Location: GM SMI
Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description
0	0									Brown (7.5 YR 4/2) Topsoil - fine to medium SAND, some CLAY, medium dense, roots and plant debris, earthy odor, moist.
		1	0-7	6.5	NA	NR	BGND	SP		Brown (7.5 YR 4/2) fine SAND, poorly sorted, little to some Clay, some strong brown (7.5 YR 5/6) weathering, moist to wet.
5	-5									becomes dark gray at 6.5' bgs.
		2	7-17	8	NA	NR	BGND	SP		Dark gray (10 YR 4/1) fine to medium SAND, poorly sorted, little to some Clay, medium dense, no odor, wet.
10	-10									
15	-15									

Well/Boring Construction



ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Client: General Motors Corporation

Well/Boring ID: X-9D

Site Location:
GM SMI
Saginaw, Michigan

Borehole Depth: 57' bgs

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
										Dark gray (10 YR 4/1) fine to medium SAND, poorly sorted, little to some Clay, medium dense, no odor, wet.	
20	-20	3	17-27	9	NA	NR	BGND	SP			2 inch diameter schedule 40 PVC riser (2.5 ft. stickup to 42.5 ft. bgs)
											Bentonite / cement grout (2-34 ft. bgs)
25	-25									little cobbles and shell fragments, trace to little fine to coarse sand at 28 ft. bgs.	
										Gray (10 YR 6/1) CLAY, some fine to medium Sand, soft, medium to high plasticity,wet.	
30	-30									shell fragments at 29, 31, and 33-35 ft. bgs.	
		4	27-37	10	NA	NR	BGND	CL			
35	-35										Bentonite Seal (34-39 ft. bgs)

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

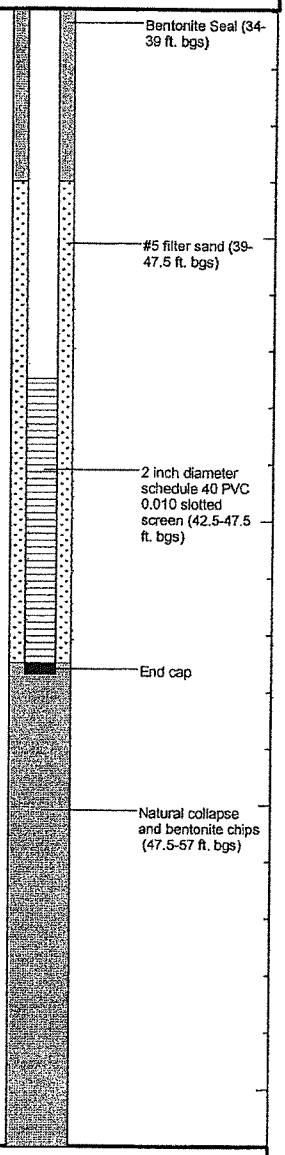
Client: General Motors Corporation

Well/Boring ID: X-9D

Borehole Depth: 57' bgs

Site Location:
GM SMI
Saginaw, Michigan

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description
										wood and shell fragments at 36 ft. bgs.
40	-40	5	37-47	5	NA	NR	BGND	SP		Gray (10 YR 6/1) medium SAND, medium dense, wood and shell fragments present, no odor, wet.
45	-45							GW		Gray COBBLES, some fine to coarse Sand, Gravel, trace to little fine to coarse Sand, subrounded to rounded, no odor, wet.
50	-50	6	47-57	10	NA	NR	BGND	CL		Gray (10 YR 6/1) CLAY, some fine to medium Sand, little coarse Sand, fine Gravel, and Rock fragments, trace wood and Shell fragments, soft, high plasticity, no odor, moist.
55	-55									



Well/Boring Construction

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)

Client: General Motors Corporation

Well/Boring ID: X-9D

Borehole Depth: 57' bgs

Site Location:
GM SMI
Saginaw, Michigan

DEPTH / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blows / 6 Inches	N - Value	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Well/Boring Construction
									Gray (10 YR 6/1) CLAY, some fine to medium Sand, little coarse Sand, fine Gravel, and Rock fragments, trace wood and Shell fragments, soft, high plasticity, no odor, moist.	Natural collapse and bentonite chips (47.5-57 ft. bgs)
									End of boring at 57 ft. bgs.	
60 -60										
65 -65										
70 -70										
75 -75										

ARCADIS BBL
Infrastructure, environment, facilities

Remarks: ft. bgs = feet below ground surface
NA = not applicable
NR = not recorded
BGND = Background (0.0 ppm)