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

Subject:
Annual Progress Report – October 2007 through September 2008
General Motors Corporation Saginaw Malleable Iron Plant Property and
REALM, Inc. Green Point Landfill and Drum Remediation Area
Saginaw, Michigan

Date:
October 14, 2008

Contact:
Lisa Coffey

Phone:
315.671.9164

Email:
lisa.coffey@
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Our ref:
B0027608 #2.04

Dear Mr. Brouillet:

This progress report presents a summary of the work activities conducted during the period of October 2007 through September 2008 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, 2007 through September 30, 2008.

Deliverables Submitted

The key deliverables submitted to the MDEQ are as follows:

- The annual progress report for October 2006 through September 2007 was submitted to the MDEQ on October 12, 2007 (ARCADIS, October 2008).
- Monthly reports have been transmitted to the MDEQ, as listed in the *References*.

- The *Environmental Monitoring Program Annual Report* for the Green Point Landfill, presenting analytical data collected in December 2007 and January 2008, was transmitted to the Michigan Department of Environmental Quality (MDEQ) on May 28, 2008 (ARCADIS, May 2008b).

- The Environmental Monitoring Program Annual Report for the Green Point Landfill, presenting results of groundwater sampling activities completed in April 2008 was submitted to MDEQ on July 9, 2008 (ARCADIS, July 2008a). 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 (MDEQ, May 2006).

- The revised site Remedial Action Plan, dated July 30, 2008, was submitted to the MDEQ (ARCADIS, July 2008c).

Meetings

- A meeting was held on November 5, 2007, at GM's offices in Pontiac, Michigan, with Ms. Sue Kaelber-Matlock (MDEQ) and Mr. Allan Brouillet (MDEQ) to discuss MDEQ's comments on the *Work Plan for Additional Site Investigation*, dated July 24, 2007 (ABBL, July 2007).

Key Correspondence and Communications

- Ms. Sue Kaelber-Matlock (MDEQ) sent an October 16, 2007 letter (Kaelber-Matlock, October 2007) to Ms. Cheryl Hiatt (GM) that provided comments on the July 24, 2007, *Work Plan for Additional Site Investigation*. The letter provided conditional approval of the Work Plan, and also introduced additional comments regarding closure of the Green Point Landfill (Kaelber-Matlock, July 2007).

- A response letter to MDEQ comments on the *Work Plan for Additional Site Investigation* dated July 24, 2007 was sent to Ms. Sue Kaelber-Matlock (MDEQ) on November 28, 2007 (ABBL, November 2007b).

- A request for revision of the RAP due date to July 31, 2008, was submitted to the MDEQ on May 14, 2008 (Hiatt, May 2008). This request was approved on May 15, 2008, in a letter from Mr. Allan Brouillet (MDEQ) (Brouillet, May 2008).

- A letter providing a summary of groundwater analytical data collected along the Saginaw River was submitted to the MDEQ, by ARCADIS on behalf of GM, on May 16, 2008 (Coffey, May 2008).

Supplemental Site Activities

Former Underground Storage Tank (UST) #7 Area

- Groundwater samples were collected from monitoring wells in the former UST #7 area in March 2008. 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

- In November 2007, groundwater samples were collected along the Saginaw River berm from monitoring wells B-7R, MW-112WT, and MW-185WT. Monitoring wells MW-117WTR, MW-111WT, MW-114WT, MW-108WT, MW-107WT, and MW-149WT contained insufficient water to allow collection of representative samples. In April 2008, monitoring wells MW-117WTR, MW-111WT, MW-107WT, and MW-149WT were sampled. Note that two wells (MW-108WT and MW-114WT) were dry in November 2007 and in April 2008 and could not be sampled. Table 2 presents the analytical data collected in the river berm area.

- A groundwater sample was collected on June 3, 2008, from monitoring well B-7R, and analyzed for polychlorinated biphenyls (PCBs), to further investigate a PCB detection observed in April 2008 (Table 2).

- A groundwater sampling program was completed between May 29th and June 6th 2008, to assess the extent of total dissolved solids and ammonia nitrogen in groundwater along the Saginaw River and to evaluate background concentrations. The data are shown in Table 3.

- A water table monitoring well (MW-186WT) was installed on July 17, 2008, down-gradient of B-7R in the river berm area, to monitor for PCBs. The well was developed on July 23 and 24, 2008.

Quench Pit LNAPL Recovery Program

- The automated skimmer pump in the Quench Pit Area (monitoring well QPTW-3) operated until October 26, 2007, when it was turned off due to plant demolition activities. Since the system was turned off, 16.5 gallons of LNAPL were manually bailed through the end of September 2008. Access to the Quench Pit Area to manually bail LNAPL has been limited due to demolition activities. Since the system was installed on February 8, 2002, a total of approximately 2,420 gallons of LNAPL were recovered (through October 26, 2007).

LNAPL Recovery System

- The LNAPL recovery system located south of the plant building was turned off due to plant demolition activities on October 26, 2007. LNAPL has been manually bailed from the monitoring wells and recovery wells on a monthly basis and approximately 4.4 gallons have been removed in the past year. As shown in Table 4, which presents a summary of the groundwater and LNAPL measurements for this area, only minimal LNAPL volumes are observed in the wells.

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	3,068,100
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
Total hand bailed since October 27, 2007	4.4	0

Operation	Approximate Volume of Oil Recovered (Gallons)[1]	Approximate Volume of Groundwater Treated (Gallons)
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.

Green Point Landfill

- Inspections of the Green Point Landfill were completed on October 16, 2007 and April 3, 2008. During the April 3, 2008 inspection, one area in the northwest quadrant of the landfill was identified that needed minimal grading and re-seeding. The area was approximately 12-feet by 14-feet in size and was repaired in June 2008. The Post-Closure Cap Inspection forms were submitted with the corresponding monthly reports.

- During the week of December 3, 2007, the Annual Green Point Landfill Groundwater Monitoring Event (expanded in response to an MDEQ request for additional data) was completed with the exception of sample collection at the eight monitoring wells located east of the landfill, adjacent to the Saginaw River. Due to proximity to the river and the sensitivity of the data to sample turbidity, these samples need to be collected using very low flow rates, which was not possible given the freezing temperatures in December. Monitoring wells in the X-4 and X-9 well clusters, and monitoring well MW-183WT were sampled during the week of January 7, 2008. Monitoring well X-4A was found to be dry and could not be sampled. Tables 5 through 10 present the analytical data collected as part of the Green Point Landfill Monitoring Program.

- A Green Point Landfill groundwater monitoring event was completed in March and April 2008. This event included the annual sampling scope and also incorporated additional sampling requested by the MDEQ to facilitate approval of the RAP.

- Groundwater samples were collected on July 10 and 11, 2008, from monitoring wells X-4D and X-9D, installed in the deep sand unit, east of the Green Point Landfill and near the Saginaw River, as agreed to with the MDEQ to provide a total of three rounds of analytical data for the new wells.

Anticipated Site Activities

The following field activities are anticipated to be completed during the period from October 2008 through September 2009:

- Continued monitoring and removing of LNAPL in the Quench Pit Area. Note that due to plant demolition activities, the automatic system has been turned off and access to the Quench Pit Area has been limited.

- Continued monitoring and removal of LNAPL in the area south of the plant building. The existing automated recovery system, which has been turned off during plant demolition activities, will be evaluated to determine if system operation following restoration of power to the system is warranted given the small volume of LNAPL remaining in this area. Following this evaluation, discussions regarding the information will be held with the MDEQ.

- Semi-annual groundwater sampling activities at the Former UST #7 Area; tentatively scheduled for November 2008 and April of 2009.

- Groundwater sampling of select wells located along the Saginaw River perimeter on an annual basis, and additional contingency sampling as needed based on the analytical data.

- Periodic inspections of the Green Point Landfill cap.

- Monitoring well MW-186WT will be sampled for PCBs.

- Completion of the Annual 2009 Green Point Landfill Environmental Monitoring Program groundwater-sampling event in Spring of 2009, and preparation of the corresponding report.

A response from MDEQ on the revised RAP is also expected.

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

Sincerely,

ARCADIS

Lisa R. Coffey
Principal Geologist

LRC/plf

Attachments:
Table 1 – Current and Historic Groundwater Quality Data – Former UST #7 Area
Table 2 – Groundwater Analytical Data, Saginaw River Berm, Saginaw Malleable Iron Plant
Table 3 – Background Groundwater Analytical Results
Table 4 – Groundwater and LNAPL Measurement Summary, March 2004 through the Present
Table 5 – Volatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program
Table 6 – Semivolatile Organic Compounds in Groundwater, Green Point Landfill Environmental Monitoring Program
Table 7 – PCBs in Groundwater, Green Point Landfill Environmental Monitoring Program
Table 8 – TAL Inorganic Constituents in Groundwater, Green Point Landfill Environmental Monitoring Program
Table 9 – PCBs and Indicator Parameters in Groundwater, Green Point Landfill Environmental Monitoring Program
Table 10 - Notes for Groundwater Analytical Data Tables, Green Point Landfill Environmental Monitoring Program

References

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/Mr. Jim Forney, Waste Management, Inc.
Ms. Jo Ann Robertson, ARCADIS

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
	3/08	**22.0**	32	1.6	3.3	5 U	12
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

See Notes on Page 5.

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-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
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

See Notes on Page 5.

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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 7-2	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
	3/08	2100	240	27 J	36 J	3.7	3 B
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
	3/08	0.86 J	1U	1U	2U	1U	15

See Notes on Page 5.

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
	3/08	1 U	1U	1U	2 U	1.2	11
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
	3/08	42 (45)	18 (20)	7.7 (8.1)	100 (110)	5 U (5 U)	120 (120)

See Notes on Page 5.

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 of 1976.
{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 ANALYTICAL DATA
SAGINAW RIVER BERM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:		GSI	IDW	B-7R 4/2/2008	MW-107WT 4/3/2008	MW-110WTR 4/2/2008	MW-111WT 04/02/08	MW-112WT 11/27/07	MW-149WT 04/03/08	MW-185WT 11/28/07
PCBs										
Aroclor-1016	mg/L	--	--	ND(0.00020)	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	ND(0.00020)	NA	ND(0.00020) [ND(0.00020)]
Aroclor-1221	mg/L	--	--	ND(0.00020)	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	ND(0.00020)	NA	ND(0.00020) [ND(0.00020)]
Aroclor-1232	mg/L	--	--	ND(0.00020)	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	ND(0.00020)	NA	ND(0.00020) [ND(0.00020)]
Aroclor-1242	mg/L	--	--	ND(0.00020)	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	ND(0.00020)	NA	ND(0.00020) [ND(0.00020)]
Aroclor-1248	mg/L	--	--	0.00031	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	0.00016 J	NA	0.00017 J [ND(0.00020)]
Aroclor-1254	mg/L	--	--	ND(0.00020)	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	ND(0.00020)	NA	ND(0.00020) [ND(0.00020)]
Aroclor-1260	mg/L	--	--	ND(0.00020)	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	ND(0.00020)	NA	ND(0.00020) [ND(0.00020)]
Total PCBs	mg/L	0.0002{J,T,M}	0.0005 {J,T,A}	0.00031	NA	ND(0.00020)	ND(0.0002) [ND(0.0002)]	0.00016 J	NA	0.00017 J [ND(0.00020)]
PCBs-Dissolved										
Aroclor-1016 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)
Aroclor-1221 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)
Aroclor-1232 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)
Aroclor-1242 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)
Aroclor-1248 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)
Aroclor-1254 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)
Aroclor-1260 (Dissolved)	mg/L	--	--	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	0.00006 J
Total PCBs (Dissolved)	mg/L	0.0002 {J,T,M}	0.0005 {J,T,A}	ND(0.0002)	NA	ND(0.00020)	ND(0.0002)	ND(0.0002)	NA	0.00006 J
Inorganics										
Aluminum	mg/L	{NA}	4.1 {B,V}	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	0.13 {X}	0.006 {A}	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	0.00095 J	NA	NA	NA	0.936 [0.923]	NA
Barium	mg/L	1.2 {B,G,X}	2 {B,A}	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/L	0.026 {G}	0.004 {A}	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/L	0.0045 {B,G,X}	0.005 {B,A}	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/L	0.011	0.1 {A}	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	0.1	0.1	NA	NA	NA	NA	NA	NA	NA
Copper	mg/L	0.02 {B,G}	4 {B,E}	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/L	0.0052 {P,R}	0.2 {P,R,A}	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	{NA}	13 {B,E}	NA	NA	NA	NA	NA	NA	NA
Lead	mg/L	0.028 {B,G,X}	0.006 {B,L}	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	{B}	1,100 {B}	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/L	4.4 {B,G,X}	2.5 {B,E}	0.878	0.379	2.68	1.08 [1.14]	0.523	1.57	0.291
Mercury	mg/L	0.0000013 {B,Z}	0.002 {A,B,Z}	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/L	0.12 {B,G}	0.1 {B,A}	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.0002 {B,M}	0.098 {B}	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	{NA}	350	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	ND (0.001)	NA	NA	ND(0.00100)	0.0018 J [ND(0.00100)]	NA
Vanadium	mg/L	0.012	0.062	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/L	0.26 {B,G}	20 {B,E}	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 3.

TABLE 2
GROUNDWATER ANALYTICAL DATA
SAGINAW RIVER BERM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:		GSI	IDW	B-7R 4/2/2008	MW-107WT 4/3/2008	MW-110WTR 4/2/2008	MW-111WT 04/02/08	MW-112WT 11/27/07	MW-149WT 04/03/08	MW-185WT 11/28/07
Miscellaneous										
Ammonia Nitrogen	mg/L	--	10 {N}	1.7	0.3	0.09 J	0.5 [0.5]	0.6	0.8	ND(0.3) [ND(0.3)]
Estimated Unionized Ammonia	mg/L	0.053 {CC}	--	0.12	0.02	0.01	0.04	0.04	0.06	NA
Biochemical Oxygen Demand (BOD)	mg/L	--		NA	NA	NA	NA	NA	NA	NA
Bromide	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Calcium Carbonate	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Chemical Oxygen Demand (COD)	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Chloride	mg/L	{FF}	250 {E}	NA	NA	NA	NA	NA	NA	NA
Ferrous Iron	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Nitrate (as N)	mg/L	4.4 {B,G,X}	2.5 {B,E}	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	mg/L	{NA}	10 {B,A,N}	NA	NA	NA	NA	NA	NA	NA
Nitrogen	mg/L	{NA}	1 {B,A,N}	NA	NA	NA	NA	NA	NA	NA
Oil and Grease	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Phosphorus	mg/L	--	--	NA	0.03 J	0.2	0.4 [0.4]	NA	0.3	NA
Sulfate	mg/L	{NA}	250 {E}	NA	NA	NA	NA	NA	NA	NA
Sulfide	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Surfactants	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	mg/L	500 {EE}	500 {E}	440	NA	1500	580 [590]	400	NA	400 [380]
Total Kjeldahl Nitrogen (TKN)	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon (TOC)	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA

See Notes on Page 3.

TABLE 2
GROUNDWATER ANALYTICAL DATA
SAGINAW RIVER BERM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

General Notes:

Groundwater concentrations are presented in milligram per liter (mg/L), except where noted.
Total PCBs reported as the sum of PCB Aroclors.

J = Estimated value.
R = Rejected.
ND = The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
NA = Not analyzed.
B = Method blank contamination.
D = Compounds at secondary dilution factor.

TABLE 3
BACKGROUND GROUNDWATER ANALYTICAL RESULTS

GENERAL MOTORS CORPORATION
SMI PLANT PROPERTY, AND REALM GREEN POINT LANDFILL AND DRUM REMEDIATION AREA
SAGINAW, MICHIGAN

Date	Well ID	Total Dissolved Solids (mg/L)	Nitrogen, as Ammonia (mg/L)	Estimated Un-ionized Ammonia (mg/L)
6/3/2008	MW-139WT	950	0.3	0.022
6/3/2008	MW-138WT	810	0.2	0.014
6/3/2008	MW-101WT	860	0.2	0.014
6/3/2008	MW-129WT	1000	0.5	0.036
5/29/2008	MW-125WT	480	0.2	0.014
5/29/2008	TWW-1	1600	0.2	0.014
5/29/2008	X-17R	2200	0.07 J	0.005
5/29/2008	X-18	4100 [4500]	0.1 J [0.01 J]	0.007 [0.007]
5/29/2008	X-19AR	890	0.2	0.014

Notes:

Samples were collected by ARCADIS, and submitted Test America Laboratories in North Canton, Ohio for analysis.

Duplicate results are presented in brackets.

The estimated unionized ammonia (NH_3) concentrations calculated for the monitoring wells located adjacent to the Saginaw River are based on the MDEQ default value of 7.2% of total ammonia nitrogen for warm water surface water.

J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.

TABLE 4
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
MARCH 2004 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			
	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)
October 18, 2005	--	--	--	--	6.85	1.93	8.78	585.07	7.68	0.38	8.06	584.01
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
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
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
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
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
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
May 25, 2006	NA	NA	NA	NA	NA	NA	NA	NA	6.37	0.14	6.51	585.34
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
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
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
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
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
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
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
January 25, 2007	NP	0.00	10.98	583.26	NA	NA	NA	NA	7.42	0.04	7.46	584.30
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
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
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
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
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
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
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
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
October 25, 2007	NP	0.00	11.02	583.22	6.53	1.72	8.25	585.40	7.46	0.08	7.54	584.25
November 27, 2007	NP	0.00	10.27	583.97	6.47	1.58	8.05	585.47	7.06	0.06	7.12	584.66
January 7, 2008	NP	0.00	9.03	585.21	5.46	1.18	6.64	586.52	6.01	0.26	6.27	585.69
February 22, 2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
March 17, 2008	NP	0.00	8.31	585.93	4.09	1.23	5.32	587.88	NA	NA	NA	NA
April 7, 2008	NP	0.00	8.51	585.73	4.68	0.97	5.65	587.31	4.96	0.31	5.27	586.74
May 5, 2008	NP	0.00	9.46	584.78	5.91	0.74	6.65	586.10	5.72	0.29	6.01	585.98
June 2, 2008	NP	0.00	10.80	583.44	5.98	0.66	6.64	586.04	6.26	0.25	6.51	585.44
July 7, 2007	NP	0.00	8.68	585.56	4.96	0.64	5.60	587.06	5.21	0.18	5.39	586.50
August 13, 2008	NP	0.00	8.93	585.31	5.19	0.63	5.82	586.83	5.32	0.18	5.50	586.39
September 8, 2008	NP	0.00	9.15	585.09	5.45	0.51	5.96	586.58	5.61	0.18	5.79	586.10

See Notes on Page 5.

TABLE 4
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
MARCH 2004 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Date	MW-158WT reference elevation = 591.78				MW-160WT reference elevation = 591.53				MW-161WT reference elevation = 591.80				MW-168WT reference elevation = 592.11			
	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)
October 18, 2005	NP	0.00	8.56	583.22	8.66	0.06	8.72	582.87	NP	0.00	8.00	583.80	NA	NA	NA	NA
November 30, 2005	NP	0.00	8.31	583.47	8.52	0.01	8.53	583.01	NP	0.00	7.78	584.02	NA	NA	NA	NA
December 26, 2005	NP	0.00	8.14	583.64	8.44	0.01	8.45	583.09	NP	0.00	7.76	584.04	NA	NA	NA	NA
January 31, 2006	NP	0.00	7.53	584.25	NP	0.00	8.21	583.32	NP	0.00	7.37	584.43	NA	NA	NA	NA
February 24, 2006	NP	0.00	7.98	583.80	NP	0.00	8.38	583.15	NP	0.00	7.49	584.31	NA	NA	NA	NA
March 22, 2006	NP	0.00	7.71	584.07	8.24	0.01	8.25	583.29	NP	0.00	7.23	584.57	NA	NA	NA	NA
April 27, 2006	8.14	0.01	8.15	583.64	NP	0.00	8.43	583.10	NP	0.00	7.35	584.45	NA	NA	NA	NA
May 25, 2006	NP	0.00	7.95	583.83	NA	NA	NA	NA	NP	0.00	7.21	584.59	NA	NA	NA	NA
June 27, 2006	NP	0.00	8.17	583.61	NP	0.00	8.44	583.09	NP	0.00	7.39	584.41	NA	NA	NA	NA
July 11, 2006	NP	0.00	8.03	583.75	NP	0.00	8.40	583.13	NP	0.00	7.46	584.34	NA	NA	NA	NA
August 23, 2006	NP	0.00	8.08	583.70	NP	0.00	8.41	583.12	NP	0.00	7.41	584.39	NA	NA	NA	NA
September 26, 2006	NP	0.00	7.90	583.88	NP	0.00	8.32	583.21	NP	0.00	7.38	584.42	NA	NA	NA	NA
October 30, 2006	7.49	0.02	7.51	584.29	NP	0.00	8.13	583.40	NP	0.00	7.17	584.63	NA	NA	NA	NA
November 27, 2006	7.92	0.01	7.93	583.86	NP	0.00	8.40	583.13	NP	0.00	7.36	584.44	NA	NA	NA	NA
December 27, 2006	NP	0.00	7.94	583.84	NP	0.00	8.34	583.19	NP	0.00	7.32	584.48	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	NA	NA	NA	NA	NP	0.00	8.59	582.94	NP	0.00	7.78	584.02	NA	NA	NA	NA
March 23, 2007	NP	0.00	8.09	583.69	NP	0.00	8.53	583.00	NP	0.00	7.58	584.22	NA	NA	NA	NA
April 30, 2007	8.05	0.01	8.06	583.73	NP	0.00	8.46	583.07	NP	0.00	7.40	584.40	NA	NA	NA	NA
May 17, 2007	NA	NA	NA	NA	NP	0.00	8.44	583.09	NP	0.00	7.39	584.41	NA	NA	NA	NA
June 12, 2007	NP	0.00	8.11	583.67	NP	0.00	8.50	583.03	NP	0.00	7.45	584.35	NA	NA	NA	NA
July 18, 2007	NP	0.00	8.16	583.62	NP	0.00	8.54	582.99	NP	0.00	7.59	584.21	NA	NA	NA	NA
August 28, 2007	NP	0.00	7.97	583.81	NP	0.00	8.46	583.07	NA	NA	NA	NA	NA	NA	NA	NA
September 19, 2007	NP	0.00	7.51	584.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
October 25, 2007	NP	0.00	8.31	583.47	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
November 27, 2007	NP	0.00	7.64	584.14	NP	0.00	7.61	583.92	NA	NA	NA	NA	NA	NA	NA	NA
January 7, 2008	NP	0.00	6.49	585.29	NP	0.00	6.31	585.22	NA	NA	NA	NA	NA	NA	NA	NA
February 22, 2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
March 17, 2008	NP	0.00	5.42	586.36	5.82	0.03	5.85	585.71	NA	NA	NA	NA	NA	NA	NA	NA
April 7, 2008	NP	0.00	5.66	586.12	5.96	0.06	6.02	585.57	NP	0.00	6.49	585.31	NA	NA	NA	NA
May 5, 2008	NP	0.00	6.68	585.10	6.89	0.03	7.13	584.43	NP	0.00	7.04	584.76	NA	NA	NA	NA
June 2, 2008	NP	0.00	6.81	584.97	6.80	0.23	7.03	584.71	NP	0.00	7.12	584.68	NA	NA	NA	NA
July 7, 2007	NP	0.00	6.00	585.78	6.08	0.21	6.29	585.43	NP	0.00	6.79	585.01	NA	NA	NA	NA
August 13, 2008	NP	0.00	6.21	585.57	6.31	0.21	6.52	585.20	NP	0.00	7.02	584.78	NA	NA	NA	NA
September 8, 2008	NP	0.00	6.35	585.43	6.54	0.12	6.66	584.98	NP	0.00	7.20	584.60	NA	NA	NA	NA

See Notes on Page 5.

TABLE 4
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
MARCH 2004 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	MW-169WT reference elevation = 591.82				MW-172WT reference elevation = 591.51				MW-175WT reference elevation not available				MW-178WT reference elevation = 590.35			
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)
October 18, 2005	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	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	NA	NA	NA	NA	7.41	0.38	7.79	582.91
March 6, 2007	NA	NA	NA	NA	8.44	0.29	8.73	583.05	NA	NA	NA	NA	7.51	0.51	8.02	582.80
March 23, 2007	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NA	NA	NA	NA	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	NP	0.00	8.31	583.51	NA	NA	NA	NA	NP	0.00	7.02	NA	7.46	0.32	7.78	582.86
August 28, 2007	NA	NA	NA	NA	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	NA	NA	NA	NA	NP	0.00	6.66	NA	6.87	0.11	6.98	583.47
October 25, 2007	NA	NA	NA	NA	NP	0.00	8.42	583.09	NP	0.00	7.08	NA	7.59	0.25	7.84	582.74
November 27, 2007	NA	NA	NA	NA	7.50	0.02	7.52	584.01	NA	NA	NA	NA	6.52	0.14	6.66	583.82
January 7, 2008	NA	NA	NA	NA	NP	0.00	6.16	585.35	NP	0.00	6.53	NA	5.44	0.05	5.49	584.91
February 22, 2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
March 17, 2008	NA	NA	NA	NA	NP	0.00	5.73	585.78	NA	NA	NA	NA	NA	NA	NA	NA
April 7, 2008	NA	NA	NA	NA	NP	0.00	5.88	585.63	NP	0.00	5.84	NA	5.30	0.02	5.32	585.05
May 5, 2008	NA	NA	NA	NA	NP	0.00	6.85	584.66	NP	0.00	6.31	NA	6.25	0.02	6.27	584.10
June 2, 2008	NP	0.00	7.10	584.72	NP	0.00	6.75	584.76	NP	0.00	6.39	NA	5.93	0.01	5.94	584.42
July 7, 2007	NP	0.00	6.56	585.26	NP	0.00	5.99	585.52	NP	0.00	5.96	NA	5.32	0.02	5.34	585.03
August 13, 2008	NP	0.00	6.78	585.04	NA	NA	NA	NA	NP	0.00	6.14	NA	NP	0.00	5.81	584.54
September 8, 2008	NP	0.00	7.03	584.79	NA	NA	NA	NA	NP	0.00	6.36	NA	5.86	0.01	5.87	584.49

See Notes on Page 5.

TABLE 4
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
MARCH 2004 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	MW-179WT reference elevation not available				MW-180WT reference elevation = 590.67				RW-1 reference elevation = 592.18				RW-2 reference elevation = 592.07			
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)
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	NP	0.00	8.99	583.08
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	NP	0.00	8.93	583.14
December 26, 2005	NP	0.00	7.14	NA	NP	0.00	7.20	583.47	NA	NA	NA	NA	NP	0.00	8.99	583.08
January 31, 2006	NP	0.00	7.63	NA	NP	0.00	6.81	583.86	NA	NA	NA	NA	NP	0.00	8.72	583.35
February 24, 2006	NP	0.00	7.82	NA	NP	0.00	6.81	583.86	8.49	0.33	8.82	583.66	NP	0.00	8.87	583.20
March 22, 2006	NP	0.00	6.68	NA	NP	0.00	6.69	583.98	8.35	0.52	8.87	583.79	NA	NA	NA	NA
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	NA	NA	NA	NA
May 25, 2006	NP	0.00	6.74	NA	NP	0.00	6.76	583.91	8.45	0.56	9.01	583.69	NA	NA	NA	NA
June 27, 2006	NP	0.00	6.84	NA	NP	0.00	6.85	583.82	8.71	0.71	9.42	583.41	NA	NA	NA	NA
July 11, 2006	NP	0.00	6.83	NA	NP	0.00	6.90	583.77	8.49	0.86	9.35	583.62	NA	NA	NA	NA
August 23, 2006	NP	0.00	6.61	NA	NP	0.00	6.65	584.02	8.51	0.97	9.48	583.59	NA	NA	NA	NA
September 26, 2006	NA	NA	NA	NA	NP	0.00	6.76	583.91	8.31	0.48	8.79	583.83	NP	0.00	8.90	583.17
October 30, 2006	NA	NA	NA	NA	NP	0.00	6.49	584.18	NA	NA	NA	NA	NP	0.00	8.75	583.32
November 27, 2006	NA	NA	NA	NA	NP	0.00	6.59	584.08	8.43	0.61	9.04	583.70	NP	0.00	8.94	583.13
December 27, 2006	NA	NA	NA	NA	NP	0.00	6.64	584.03	NA	NA	NA	NA	NP	0.00	8.76	583.31
January 25, 2007	NA	NA	NA	NA	NP	0.00	6.76	583.91	NA	NA	NA	NA	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	NP	0.00	9.14	582.93
March 23, 2007	NP	0.00	6.90	NA	NP	0.00	6.93	583.74	8.31	0.27	8.58	583.85	NP	0.00	8.64	583.43
April 30, 2007	NP	0.00	6.56	NA	NP	0.00	6.58	584.09	8.52	0.09	8.61	583.65	NP	0.00	8.98	583.09
May 17, 2007	NA	NA	NA	NA	NP	0.00	6.52	584.15	8.38	0.14	8.52	583.79	NP	0.00	8.99	583.08
June 12, 2007	NP	0.00	6.57	NA	NP	0.00	6.58	584.09	8.39	0.07	8.46	583.78	NP	0.00	9.03	583.04
July 18, 2007	NP	0.00	6.75	NA	NP	0.00	6.78	583.89	8.46	0.63	9.09	583.67	NP	0.00	9.07	583.00
August 28, 2007	NP	0.00	6.82	NA	NP	0.00	6.85	583.82	8.23	0.11	8.34	583.94	NP	0.00	9.00	583.07
September 19, 2007	NP	0.00	6.65	NA	NP	0.00	6.69	583.98	7.93	0.11	8.04	584.24	NP	0.00	8.44	583.63
October 25, 2007	NP	0.00	6.98	NA	NP	0.00	7.02	583.65	8.80	0.45	9.25	583.34	NP	0.00	8.93	583.14
November 27, 2007	NA	NA	NA	NA	NP	0.00	7.07	583.60	8.03	0.15	8.18	584.14	NP	0.00	8.04	584.03
January 7, 2008	NA	NA	NA	NA	NP	0.00	7.01	583.66	6.76	0.04	6.80	585.42	NA	NA	NA	NA
February 22, 2008	NA	NA	NA	NA	NA	NA	NA	NA	6.06	0.03	6.09	586.12	NP	0.00	6.56	585.51
March 17, 2008	NA	NA	NA	NA	NA	NA	NA	NA	5.95	0.02	5.97	586.23	NP	0.00	6.36	585.71
April 7, 2008	NP	0.00	6.46	NA	NP	0.00	6.45	584.22	6.24	0.06	6.30	585.94	NP	0.00	6.51	585.56
May 5, 2008	NA	NA	NA	NA	NP	0.00	6.52	584.15	7.17	0.02	7.19	585.01	NP	0.00	6.18	585.89
June 2, 2008	NP	0.00	6.55	NA	NP	0.00	6.56	584.11	7.16	0.03	7.19	585.02	NP	0.00	7.33	584.74
July 7, 2007	NA	NA	NA	NA	NP	0.00	6.14	584.53	6.24	0.01	6.25	585.94	NA	NA	NA	NA
August 13, 2008	NA	NA	NA	NA	NP	0.00	6.25	584.42	NP	0.00	6.49	585.69	NA	NA	NA	NA
September 8, 2008	NA	NA	NA	NA	NP	0.00	6.45	584.22	NP	0.00	6.60	585.58	NA	NA	NA	NA

See Notes on Page 5.

TABLE 4
GROUNDWATER AND LNAPL MEASUREMENT SUMMARY
MARCH 2004 THROUGH THE PRESENT

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

	RW-3 reference elevation = 592.32				TP-2			
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)
October 18, 2005	NP	0.00	8.41	583.91	--	--	--	NA
November 30, 2005	NP	0.00	8.02	584.30	--	--	--	NA
December 26, 2005	NP	0.00	7.98	584.34	8.43	0.87	9.30	NA
January 31, 2006	NP	0.00	5.50	586.82	7.82	0.72	8.54	NA
February 24, 2006	NP	0.00	6.78	585.54	8.36	1.04	9.40	NA
March 22, 2006	NP	0.00	6.29	586.03	8.22	0.81	9.03	NA
April 27, 2006	NP	0.00	7.66	584.66	8.57	0.99	9.56	NA
May 25, 2006	NP	0.00	7.25	585.07	8.31	0.96	9.27	NA
June 27, 2006	NP	0.00	7.91	584.41	NA	NA	NA	NA
July 11, 2006	NP	0.00	7.34	584.98	8.03	1.70	9.73	NA
August 23, 2006	NP	0.00	7.89	584.43	NA	NA	NA	NA
September 26, 2006	NP	0.00	7.08	585.24	NA	NA	NA	NA
October 30, 2006	NP	0.00	7.05	585.27	NA	NA	NA	NA
November 27, 2006	NP	0.00	7.50	584.82	NA	NA	NA	NA
December 27, 2006	NP	0.00	7.33	584.99	NA	NA	NA	NA
January 25, 2007	NP	0.00	7.90	584.42	NA	NA	NA	NA
March 6, 2007	NP	0.00	8.18	584.14	8.54	0.92	9.46	NA
March 23, 2007	NA	NA	NA	NA	8.28	0.89	9.17	NA
April 30, 2007	NP	0.00	8.03	584.29	8.37	0.79	9.16	NA
May 17, 2007	NP	0.00	7.98	584.34	8.34	0.77	9.11	NA
June 12, 2007	NP	0.00	8.21	584.11	8.29	0.76	9.05	NA
July 18, 2007	NP	0.00	8.27	584.05	8.44	0.01	8.45	NA
August 28, 2007	NP	0.00	7.57	584.75	8.12	0.45	8.57	NA
September 19, 2007	NP	0.00	7.03	585.29	7.82	0.11	7.93	NA
October 25, 2007	NP	0.00	8.32	584.00	8.69	0.39	9.08	NA
November 27, 2007	NP	0.00	8.22	584.10	7.95	0.22	8.17	NA
January 7, 2008	NP	0.00	7.30	585.02	6.66	0.04	6.70	NA
February 22, 2008	NP	0.00	5.19	587.13	NA	NA	NA	NA
March 17, 2008	NP	0.00	4.45	587.87	5.79	0.02	5.81	NA
April 7, 2008	NP	0.00	5.03	587.29	6.15	0.02	6.17	NA
May 5, 2008	NP	0.00	6.79	585.53	7.18	0.01	7.19	NA
June 2, 2008	NP	0.00	7.51	584.81	7.09	0.02	7.11	NA
July 7, 2007	NP	0.00	6.78	585.54	6.13	0.03	6.16	NA
August 13, 2008	NP	0.00	6.95	585.37	6.38	0.04	6.42	NA
September 8, 2008	NP	0.00	7.31	585.01	6.60	0.02	6.62	NA

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.

TABLE 5
VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-4D 01/09/08	X-4D 4/1-3/08	X-4D 7/10-11/2008	X-9D 01/08/08	X-9D 03/11/08	X-9D 7/10-11/2008
Volatile Organics									
1,1,1-Trichloroethane	mg/L	0.2	0.2 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,1,2,2-Tetrachloroethane	mg/L	0.078 {X}	0.035	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,1,2-trichloro-1,2,2-trifluoroethane	mg/L	0.032	170 {S}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,1,2-Trichloroethane	mg/L	0.33 {X}	0.005 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,1-Dichloroethane	mg/L	0.74	2.5	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,1-Dichloroethene	mg/L	0.065 {I,X}	0.007 {I,A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,2,4-Trichlorobenzene	mg/L	0.03	0.07 {A}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
1,2-Dibromo-3-chloropropane	mg/L	{NA}	0.0002 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010) [ND(0.0010)]
1,2-Dibromoethane	mg/L	0.0002 {X}	0.00005 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,2-Dichlorobenzene	mg/L	0.016	0.6 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,2-Dichloroethane	mg/L	0.36 {I,X}	0.005 {I,A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,2-Dichloropropane	mg/L	0.29 {I,X}	0.005 {I,A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,3-Dichlorobenzene	mg/L	0.038	0.019	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
1,4-Dichlorobenzene	mg/L	0.013	0.075 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
2-Butanone	mg/L	2.2 {I}	38 {I}	ND(0.025)	ND(0.025)	ND(0.025 J)	ND(0.025)	ND(0.025)	ND(0.025 J) [ND(0.025 J)]
2-Hexanone	mg/L	{NA}	2.9	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050 J)	ND(0.050) [ND(0.050)]
4-Methyl-2-pentanone	mg/L	{ID}	5.2 {I}	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050)	ND(0.050 J)	ND(0.050) [ND(0.050)]
Acetone	mg/L	1.7 {I}	2.1 {I}	ND(0.025)	ND(0.025)	ND(0.025 J)	ND(0.025)	ND(0.025)	ND(0.025 J) [ND(0.025 J)]
Benzene	mg/L	0.2 {I,X}	0.005 {I,A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Bromodichloromethane	mg/L	{ID}	0.08 {A,W}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Bromoform	mg/L	{ID}	0.08 {A,W}	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Bromomethane	mg/L	0.035	0.029	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010) [ND(0.0010)]
Carbon Disulfide	mg/L	{ID}	2.3 {I,R}	ND(0.0050)	0.00045 J	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Carbon Tetrachloride	mg/L	0.045 {X}	0.005 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Chlorobenzene	mg/L	0.047 {I}	0.1 {I,A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Chloroethane	mg/L	{ID}	1.7	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Chloroform	mg/L	0.17 {X}	0.08 {A,W}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Chloromethane	mg/L	{ID}	1.1 {I}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
cis-1,2-Dichloroethene	mg/L	0.62	0.07 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
cis-1,3-Dichloropropene	mg/L	--	--	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Cyclohexane	mg/L	--	--	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Dibromochloromethane	mg/L	{ID}	0.08 {A,W}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Ethylbenzene	mg/L	0.018 {I}	0.7 {I,E}	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Isopropylbenzene	mg/L	{ID}	2.3	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Methyl acetate	mg/L	--	--	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010) [ND(0.010)]
Methyl cyclohexane	mg/L	--	--	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Methyl tert-butyl ether	mg/L	0.73 {X}	0.69 {E}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Methylene Chloride	mg/L	0.94 {X}	0.005 {A}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Styrene	mg/L	0.08	0.1 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Tetrachloroethene	mg/L	0.045 {X}	0.005 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010 J) [ND(0.0010 J)]
Toluene	mg/L	0.14 {I}	1 {I,E}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
trans-1,2-Dichloroethene	mg/L	1.5	0.1 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
trans-1,3-Dichloropropene	mg/L	--	--	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010) [ND(0.0010)]
Trichloroethene	mg/L	0.2 {X}	0.005 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Trichlorofluoromethane	mg/L	{NA}	7.3	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010) [ND(0.0010)]
Vinyl Chloride	mg/L	0.015	0.002 {A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010) [ND(0.0010)]
Total 1,3-Dichloropropenes	mg/L	{NA}	0.035	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Total Xylenes	mg/L	0.035 {I}	10 {I,E}	ND(0.0020)	ND(0.0020)	ND(0.0020 J)	ND(0.0020)	ND(0.0020)	ND(0.0020) [ND(0.0020)]

See Generic Notes in Table 10.

TABLE 6
SEMIVOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-4D 01/09/08	X-4D 4/1-3/08	X-4D 7/10-11/2008	X-9D 01/08/08	X-9D 03/11/08	X-9D 7/10-11/2008
Semivolatile Organics									
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2,4,5-Trichlorophenol	mg/L	{NA}	2.1	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2,4,6-Trichlorophenol	mg/L	0.0044	0.47	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040) [ND(0.0040)]
2,4-Dichlorophenol	mg/L	0.019	0.21	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010) [ND(0.010)]
2,4-Dimethylphenol	mg/L	0.38	1	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2,4-Dinitrophenol	mg/L	--	--	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020 J)	ND(0.020) [ND(0.020)]
2,4-Dinitrotoluene	mg/L	{NA}	0.032	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2,6-Dinitrotoluene	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2-Chloronaphthalene	mg/L	{NA}	5.2	ND(0.0050)	ND(0.0050)	ND(0.0050 J)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2-Chlorophenol	mg/L	0.022	0.13	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2-Methylnaphthalene	mg/L	{ID}	0.75	ND(0.0050)	ND(0.0050)	ND(0.0050 J)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2-Methylphenol	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
2-Nitroaniline	mg/L	--	--	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020) [ND(0.020)]
2-Nitrophenol	mg/L	{ID}	0.058	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
3,3'-Dichlorobenzidine	mg/L	0.0003 {X}	0.0043	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040) [ND(0.0040)]
3-Nitroaniline	mg/L	--	--	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020) [ND(0.020)]
4,6-Dinitro-2-methylphenol	mg/L	{NA}	0.02 {M}	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020) [ND(0.020)]
4-Bromophenyl-phenylether	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
4-Chloro-3-Methylphenol	mg/L	0.0074	0.42	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
4-Chloroaniline	mg/L	--	--	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	R [ND(0.010)]
4-Chlorophenyl-phenylether	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
4-Methylphenol	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
4-Nitroaniline	mg/L	--	--	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020) [ND(0.020)]
4-Nitrophenol	mg/L	--	--	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020)	ND(0.020) [ND(0.020)]
Acenaphthene	mg/L	0.019	3.8	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Acenaphthylene	mg/L	{ID}	0.15	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Acetophenone	mg/L	{ID}	4.4	ND(0.0050)	ND(0.0050)	ND(0.0050 J)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Atrazine	mg/L	0.0073 {X}	0.003 {A}	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030) [ND(0.0030)]
Benzaldehyde	mg/L	--	--	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010) [ND(0.010)]
Benzo(a)anthracene	mg/L	{ID}	0.0085 {Q}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Benzo(a)pyrene	mg/L	{ID}	0.005 {Q,A}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Benzo(b)fluoranthene	mg/L	{ID}	0.0015 {Q,S,AA}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Benzo(g,h,i)perylene	mg/L	{NA}	0.001 {M}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Benzo(k)fluoranthene	mg/L	{NA}	0.001 {Q,M}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Biphenyl	mg/L	--	--	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010) [ND(0.010)]
bis(2-Chloroethoxy)methane	mg/L	--	--	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
bis(2-Chloroethyl)ether	mg/L	0.015 {I,X}	0.0083 {I}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
bis(2-Ethylhexyl)phthalate	mg/L	0.032	0.006 {A}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Butylbenzylphthalate	mg/L	0.014 {X}	2.7 {S}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Caprolactam	mg/L	{NA}	17	ND(0.010)	ND(0.010 J)	ND(0.010 J)	ND(0.010 J)	ND(0.010)	ND(0.010 J) [ND(0.010)]
Carbazole	mg/L	0.01 {M}	0.35	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010)	ND(0.010) [ND(0.010)]
Chrysene	mg/L	{ID}	0.0016 {Q,S}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Dibenzo(a,h)anthracene	mg/L	{ID}	0.002 {Q,M}	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020) [ND(0.0020)]
Dibenzofuran	mg/L	0.004	{ID}	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040)	ND(0.0040) [ND(0.0040)]
Diethylphthalate	mg/L	0.11	16	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Dimethylphthalate	mg/L	{NA}	210	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Di-n-Butylphthalate	mg/L	0.0097	2.5	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Di-n-Octylphthalate	mg/L	{ID}	0.38	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Fluoranthene	mg/L	0.0016	0.21 {S}	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]

See Generic Notes in Table 10.

TABLE 6
SEMIVOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: Date Collected:	Units	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-4D 01/09/08	X-4D 4/1-3/08	X-4D 7/10-11/2008	X-9D 01/08/08	X-9D 03/11/08	X-9D 7/10-11/2008
Semivolatile Organics									
Fluorene	mg/L	0.012	2 {S}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Hexachlorobenzene	mg/L	0.0002 {M}	0.001 {A}	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Hexachlorobutadiene	mg/L	0.00005	0.042	ND(0.0010)	ND(0.0010)	ND(0.0010 J)	ND(0.0010)	ND(0.0010)	ND(0.0010) [ND(0.0010)]
Hexachlorocyclopentadiene	mg/L	{ID}	0.05 {A}	ND(0.0050)	ND(0.0050)	R	ND(0.0050)	R	ND(0.0050) [ND(0.0050)]
Hexachloroethane	mg/L	0.0067 {X}	0.021	ND(0.0050)	ND(0.0050)	ND(0.0050 J)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Indeno(1,2,3-cd)pyrene	mg/L	{ID}	0.002 {Q,M}	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020) [ND(0.0020)]
Isophorone	mg/L	0.57 {X}	3.1	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Naphthalene	mg/L	0.013	1.5	ND(0.0050)	ND(0.0050)	ND(0.0050 J)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Nitrobenzene	mg/L	0.18 {I,X}	0.0096 {I}	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030)	ND(0.0030) [ND(0.0030)]
N-Nitroso-di-n-propylamine	mg/L	{NA}	0.005 {M}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
N-Nitrosodiphenylamine	mg/L	{NA}	1.1	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Pentachlorophenol	mg/L	0.0028 {G,X}	0.001 {A}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Phenanthrene	mg/L	0.0024	0.15	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020)	ND(0.0020) [ND(0.0020)]
Phenol	mg/L	0.21	13	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Pyrene	mg/L	{ID}	0.14 {S}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]
Total Methylphenols	mg/L	0.071 {J}	1 {J}	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050)	ND(0.0050) [ND(0.0050)]

See Generic Notes in Table 10.

TABLE 7
PCB ANALYTICAL RESULTS
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	X-4D 01/09/08	X-4D 4/1-3/08	X-4D 7/10-11/2008	X-9D 01/08/08	X-9D 03/11/08	X-9D 7/10-11/2008
PCBs									
Aroclor-1016	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1221	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1232	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1242	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1248	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1254	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Aroclor-1260	mg/L	--	--	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]
Total PCBs	mg/L	0.0002 {J,T,M}	0.0005 {J,T,A}	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020)	ND(0.00020) [ND(0.00020)]

See Generic Notes in Table 10.

TABLE 8
TAL INORGANIC CONSTITUENTS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	MW-117S1 12/07/07	MW-117S1 03/14/08	MW-117S2 12/07/07	MW-117S2 04/01/08	MW-117WT 12/07/07	MW-117WT 03/14/08	MW-118S1 12/14/06	MW-118S1 12/07/07	MW-118S2 12/07/07	MW-118S2 04/01/08	MW-118WT 12/07/07	MW-118WT 04/01/08	MW-128S1 12/05/07	MW-128S1 03/12/08	MW-128WT 12/05/07
Inorganics - Total																		
Aluminum	mg/L	{NA}	4.1 {B,V}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	0.13 {X}	0.006 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/L	0.15 {X}	0.01 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/L	1.2 {B,G,X}	2 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/L	0.026 {G}	0.004 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/L	0.0045 {B,G,X}	0.005 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/L	0.011	0.1 {A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	0.1	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/L	0.02 {B,G}	4 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/L	0.0052 {P,R}	0.2 {P,R,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	{NA}	13 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/L	0.028 {B,G,X}	0.006 {B,L}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	{B}	1,100 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/L	4.4 {B,G,X}	2.5 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/L	0.0000013 {B,Z}	0.002 {A,B,Z}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/L	0.12 {B,G}	0.1 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	0.005 {B}	0.05 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	0.0002 {B,M}	0.098 {B}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	{NA}	350	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	0.012	0.062	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/L	0.26 {B,G}	20 {B,E}	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																		
Aluminum	mg/L	{NA}	4.1 {B,V}	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Antimony	mg/L	0.13 {X}	0.006 {A}	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Arsenic	mg/L	0.15 {X}	0.01 {A}	ND(0.005)	0.0039 J	0.0149 (IDW)	ND(0.0154)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.0064)	ND(0.005)	ND(0.005)	0.0111 (IDW)	0.0047 J	0.0046 J
Barium	mg/L	1.2 {B,G,X}	2 {B,A}	1.89	1.81	1.06	1.12	2.88 (IDW)	2.67 (IDW)	0.727	0.753	0.407	0.302	1.12	1.04	0.336	0.401	0.164
Beryllium	mg/L	0.026 {G}	0.004 {A}	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	0.0045 {B,G,X}	0.005 {B,A}	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.0021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Calcium	mg/L	--	--	167	152	141	137	871	829	145	168	126	120	601	510	337	321	59.5
Chromium Total	mg/L	0.011	0.1 {A}	ND(0.005)	ND(0.005)	ND(0.005)	0.0024 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.0037 J
Cobalt	mg/L	0.1	0.1	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	0.0044 J	0.0025 J	0.0093
Copper	mg/L	0.02 {B,G}	4 {B,E}	ND(0.002)	ND(0.002)	ND(0.002)	0.0005 J	0.0031	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	0.0021	ND(0.0022)	0.00045 J	0.00099 J	ND(0.002)	0.00079 J
Cyanide	mg/L	0.0052 {P,R}	0.2 {P,R,A}	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Iron	mg/L	{NA}	13 {B,E}	9.48	7.35	8.41	7.96	124 (IDW)	112 (IDW)	5.93	6.94	0.453	1.44	35.4 (IDW)	30.5 (IDW)	0.899	2.33	5.29
Lead	mg/L	0.028 {B,G,X}	0.006 {B,L}	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Magnesium	mg/L	{B}	1,100 {B}	54.4	48.4	51.8	49.2	466	441	46.1	54.9	50.2	46.1	196	176	13.7	51.9	81.2
Manganese	mg/L	4.4 {B,G,X}	2.5 {B,E}	0.332	0.312	0.0851	0.0861	4.46 (IDW)	4.16 (IDW)	0.401	0.425	0.0705	0.0684	0.881	0.8	0.0362	0.144	0.127
Mercury	mg/L	0.0000013 {B,Z}	0.002 {A,B,Z}	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	0.0002	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)
Nickel	mg/L	0.12 {B,G}	0.1 {B,A}	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.0508	0.0174 J	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.0201	0.0176 J	0.0206	0.0241	0.0329
Potassium	mg/L	--	--	2.72 J	2.48 J	3.68 J	3.49	62.5 J	45.6 J	2.4	2.97 J	5.16 J	4.21	23.5 J	18.4	8.7	7.15	144
Selenium	mg/L	0.005 {B}	0.05 {B,A}	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Silver	mg/L	0.0002 {B,M}	0.098 {B}	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002 J)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	0.00013 J	ND(0.0002)	ND(0.0002)	ND(0.0002)
Sodium	mg/L	{NA}	350	129	113	216	192	620 (IDW)	545 (IDW)	115	131	242	262	406 (IDW)	334	456 (IDW)	426 (IDW)	583 (IDW)
Thallium	mg/L	0.0037 {B,I, X}	0.002 {B,A}	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00018 J	ND(0.001)	ND(0.001)	ND(0.001)
Vanadium	mg/L	0.012	0.062	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)
Zinc	mg/L	0.26 {B,G}	20 {B,E}	0.0197 J	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.0059 J	0.006 J	ND(0.02)	ND(0.02)	ND(0.02)	0.0074 J	ND(0.02)

See Generic Notes in Table 10.

TABLE 8
TAL INORGANIC CONSTITUENTS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	MW-128WT 03/12/08	MW-183WT 01/09/08	MW-183WT 03/12/08	X-1A 12/07/07	X-1A 03/12/08	X-1B 12/06/07	X-1B 03/12/08	X-1CR2 12/07/07	X-1CR2 03/12/08	X-2A 12/04/07	X-2A 03/10/08	X-2C 12/04/07	X-2C 03/10/08	X-2DAUG 12/05/07	X-2DAUG 03/10/08
Inorganics - Total																
Aluminum	mg/L	NA	ND(0.200) [ND(0.200)]	ND(0.200)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	NA	ND(0.00200) [ND(0.00200)]	ND(0.00200)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/L	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/L	NA	0.0441 J [0.0443 J]	0.0526 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/L	NA	ND(0.00100) [ND(0.00100)]	ND(0.00100)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/L	NA	ND(0.00100) [ND(0.00100)]	ND(0.00100)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	NA	71.5 [73.1]	79.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/L	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	NA	ND(0.00700) [ND(0.00700)]	ND(0.00700)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/L	NA	ND(0.00200) [ND(0.00200)]	ND(0.00200)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	NA	1.20 J [0.669 J]	0.659	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/L	NA	ND(0.00300) [ND(0.00300)]	ND(0.00300)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	NA	13.4 [13.7]	14.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/L	NA	0.514 [0.429 J]	0.611	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/L	NA	ND(0.000200) [ND(0.000200)]	ND(0.000200)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/L	NA	ND(0.0200) [ND(0.0200)]	ND(0.0200)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	NA	0.556 J [0.489 J]	ND(1.00)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	NA	ND(0.00500) [ND(0.00500)]	ND(0.00500)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	NA	ND(0.000200) [ND(0.000200)]	ND(0.000200)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	NA	97.2 [99.8]	99.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	NA	ND(0.00100) [ND(0.00100)]	ND(0.00100)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	NA	ND(0.00400) [ND(0.00400)]	ND(0.00400)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/L	NA	ND(0.0200) [ND(0.0200)]	0.00560 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved																
Aluminum	mg/L	ND(0.2)	ND(0.2) [ND(0.2)]	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2) [ND(0.2)]	ND(0.2)	ND(0.2)
Antimony	mg/L	ND(0.002)	ND(0.002) [ND(0.002)]	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002) [ND(0.002)]	ND(0.002)	ND(0.002)
Arsenic	mg/L	ND(0.005)	ND(0.005) [ND(0.005)]	0.0033 J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.0033 J	ND(0.005)	ND(0.005)	0.0158 (IDW)	0.0198 (IDW) [0.019 (IDW)]	0.0051	0.0034 J
Barium	mg/L	0.086 J	0.0456 J [0.0442 J]	0.0514 J	0.102	0.0856 J	0.482	0.74	0.0252 J	0.0249 J	0.201	0.254	0.272	0.308 [0.309]	0.226	0.223
Beryllium	mg/L	ND(0.001)	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.001)	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.00082 J	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)
Calcium	mg/L	66	74.3 [71.2]	80.5	79.5	76.7	193	280	75.8	70.6	50.2	61	196	195 [193]	201	192
Chromium Total	mg/L	ND(0.005)	ND(0.005) [ND(0.005)]	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	ND(0.005)	ND(0.005)
Cobalt	mg/L	0.0027 J	ND(0.007) [ND(0.007)]	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	0.0052 J	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007) [ND(0.007)]	ND(0.007)	ND(0.007)
Copper	mg/L	ND(0.002)	ND(0.002) [ND(0.002)]	ND(0.002)	ND(0.002)	ND(0.002)	0.007	ND(0.002)	0.0031	0.00086 J	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002) [ND(0.002)]	0.00074 J	ND(0.002)
Cyanide	mg/L	ND(0.01)	ND(0.01) [ND(0.01)]	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01) [ND(0.01)]	ND(0.01)	ND(0.01)
Iron	mg/L	4.73	0.714 J [1.28 J]	0.298	16 (IDW)	16.9 (IDW)	6.04	22.3 (IDW)	ND(0.1)	ND(0.1)	0.207	0.434	19.9 (IDW)	20.7 (IDW) [21 (IDW)]	12.4	12
Lead	mg/L	ND(0.003)	ND(0.003) [ND(0.003)]	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003) [ND(0.003)]	ND(0.003)	ND(0.003)
Magnesium	mg/L	72.5	13.9 [13.3]	14.7	40.7	38.5	54.2	86.9	37	34.1	13.1	17.6	51.9	50.9 [50.3]	49.4	46.6
Manganese	mg/L	0.141	0.44 [0.565 J]	0.608	0.569	0.665	0.607	1.04	0.0403	0.0023 J	0.249	0.347	0.848	0.84 [0.83]	1.06	1.01
Mercury	mg/L	ND(0.0002)	ND(0.0002) [ND(0.0002)]	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002) [ND(0.0002)]	ND(0.0002)	0.00015 J
Nickel	mg/L	0.0127 J	ND(0.02) [ND(0.02)]	ND(0.02)	0.008 J	0.0034 J	0.0142 J	0.0198 J	ND(0.02)	ND(0.02)	0.006 J	0.0055 J	ND(0.02)	ND(0.02) [ND(0.02)]	ND(0.02)	ND(0.02)
Potassium	mg/L	65.7	0.479 J [0.501 J]	ND(1)	53.1 J	39.5	31.6 J	35.5	3 J	2.58	31 J	28.6 J	2.67 J	2.48 J [2.54 J]	1.8	1.77 J
Selenium	mg/L	ND(0.005)	ND(0.005) [ND(0.005)]	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	ND(0.005)	ND(0.005)
Silver	mg/L	ND(0.0002)	ND(0.0002) [ND(0.0002)]	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002) [ND(0.0002)]	ND(0.0002)	ND(0.0002)
Sodium	mg/L	210	102 [98]	100	197	136	459 (IDW)	750 (IDW)	140	130	277	328	259	225 [222]	128	127
Thallium	mg/L	ND(0.001)	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)
Vanadium	mg/L	ND(0.004)	ND(0.004) [ND(0.004)]	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	0.0014 J	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	0.00068 J [ND(0.004)]	ND(0.004)	ND(0.004)
Zinc	mg/L	ND(0.02)	ND(0.02) [ND(0.02)]	0.0715 J	ND(0.02)	0.0068 J	0.614	0.0144 J	0.0184 J	0.0162 J	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02) [ND(0.02)]	ND(0.02)	ND(0.02)

See Generic Notes in Table 10.

TABLE 8
TAL INORGANIC CONSTITUENTS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	X-4CAUGR 01/09/08	X-4CAUGR 03/12/08	X-4D 01/09/08	X-4D 04/01/08	X-4D 04/03/08	X-4D 7/10-11/2008	X-9AR 01/10/08	X-9AR 03/11/08	X-9BR 01/08/08	X-9BR 03/11/08	X-9CAUG 01/08/08	X-9CAUG 03/11/08	X-9D 01/08/08	X-9D 03/11/08
Inorganics - Total															
Aluminum	mg/L	ND(0.200)	ND(0.200)	ND(0.200)	NA	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)	ND(0.200)
Antimony	mg/L	ND(0.00200)	ND(0.00200)	ND(0.00200)	NA	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)
Arsenic	mg/L	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)
Barium	mg/L	0.114	0.129	0.125	NA	0.110	0.100	0.108	0.0518 J	0.155	0.147	0.381	0.167	0.0942 J	0.0807 J
Beryllium	mg/L	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)
Cadmium	mg/L	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)
Calcium	mg/L	93.3	116	172	NA	168	172	164	139	121	134	120	127	200	181
Chromium Total	mg/L	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)
Cobalt	mg/L	ND(0.00700)	ND(0.00700)	ND(0.00700)	NA	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)	ND(0.00700)
Copper	mg/L	ND(0.00200)	ND(0.00200)	ND(0.00200)	NA	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)	ND(0.00200)
Cyanide (total)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	4.60	5.05	2.25	NA	1.64	1.46	5.51	ND(0.100)	4.16	2.59	2.98	6.41	3.64	3.15
Lead	mg/L	ND(0.00300)	ND(0.00300)	ND(0.00300)	NA	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)	ND(0.00300)
Magnesium	mg/L	26.0	31.3	75.0	NA	69.3	72.7	45.3	36.8	37.6	41.5	40.4	38.6	81.1	72.2
Manganese	mg/L	0.397	0.495	0.327	NA	0.263	0.236	0.318	0.00680 J	0.833	0.903	0.616	0.679	0.186	0.149
Mercury	mg/L	ND(0.000200)	ND(0.000200)	ND(0.000200)	NA	ND(0.000200)	ND(0.000200)	ND(0.000200)	0.000130 J(GSI)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)
Nickel	mg/L	ND(0.0200)	ND(0.0200)	ND(0.0200)	NA	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)
Potassium	mg/L	0.552 J	ND(1.00)	8.07	NA	7.71 J	8.16	0.121 J	ND(1.00)	1.55	1.31	39.7	2.99	8.07	6.73
Selenium	mg/L	ND(0.00500)	ND(0.00500)	ND(0.00500)	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	0.00820(GSI)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)
Silver	mg/L	ND(0.000200)	ND(0.000200)	ND(0.000200)	NA	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)	ND(0.000200)
Sodium	mg/L	73.9	55.4	733 (IDW)	NA	701 (IDW)	725 (IDW)	58.6	34.3	122	81.2	72.8	59.9	717 (IDW)	635 (IDW)
Thallium	mg/L	ND(0.00100)	ND(0.00100)	ND(0.00100)	NA	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)	ND(0.00100)
Vanadium	mg/L	ND(0.00400)	ND(0.00400)	ND(0.00400)	NA	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)	ND(0.00400)
Zinc	mg/L	ND(0.0200)	ND(0.0200)	ND(0.0200)	NA	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	ND(0.0200)	0.00860 J	ND(0.0200)
Inorganics-Dissolved															
Aluminum	mg/L	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2) [ND(0.2)]	NA	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Antimony	mg/L	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002) [ND(0.002)]	NA	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Arsenic	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Barium	mg/L	0.123	0.137	0.124	0.112 [0.111]	NA	0.101	0.11	0.0512 J	0.103	0.136	0.36	0.174	0.0878 J	0.0866 J
Beryllium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	NA	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	NA	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Calcium	mg/L	101	126	171	179 [176]	NA	178	168	141	79.2	123	116	133	188	191
Chromium Total	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007) [ND(0.007)]	NA	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)
Copper	mg/L	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002) [0.00031 J]	NA	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Cyanide	mg/L	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01) [ND(0.01)]	NA	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)
Iron	mg/L	4.94	5.02	2.08	1.93 [1.78]	NA	1.62	5.62	0.134	2.79	2.56	2.81	6.73	3.37	3.57
Lead	mg/L	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003) [ND(0.003)]	NA	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Magnesium	mg/L	28.3	34.1	74.6	73.6 [72.6]	NA	75.5	46.3	37.5	24.3	38	38.7	40.4	75.9	76.3
Manganese	mg/L	0.427	0.535	0.318	0.263 [0.258]	NA	0.235	0.325	0.0031 J	0.541	0.828	0.586	0.699	0.173	0.155
Mercury	mg/L	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002) [ND(0.0002)]	NA	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)
Nickel	mg/L	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02) [ND(0.02)]	NA	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)
Potassium	mg/L	0.605 J	ND(1)	8.08	8.06 [7.97]	NA	8.3 J	0.137 J	ND(1)	1.06	1.29	38	3.37	7.39	7.11
Selenium	mg/L	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005) [ND(0.005)]	NA	ND(0.005)	ND(0.005)	0.0098(GSI)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Silver	mg/L	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002) [ND(0.0002)]	NA	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)
Sodium	mg/L	79.6	58	718 (IDW)	726 (IDW) [706 (IDW)]	NA	729 (IDW)	60.5	33.6	81.5	84.5	68.6	62	634 (IDW)	578 (IDW)
Thallium	mg/L	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001) [ND(0.001)]	NA	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vanadium	mg/L	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004) [ND(0.004)]	NA	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)
Zinc	mg/L	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02) [ND(0.02)]	NA	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)	0.008 J	0.0058 J	ND(0.02)	ND(0.02)

See Generic Notes in Table 10.

TABLE 8
TAL INORGANIC CONSTITUENTS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Sample ID: / Date Collected:	Units	X-9D 7/10-11/2008	X-10AR2 12/03/07	X-10AR2 04/02/08	X-10BR 12/04/07	X-10BR 03/12/08	X-10CR 12/04/07	X-10CR 03/12/08	X-10DAUG 12/04/07	X-10DAUG 03/12/08	X-16A 12/05/07	X-16A 12/06/07	X-16A 04/02/08	X-16B 12/03/07	X-16B 03/14/08
Inorganics - Total															
Aluminum	mg/L	ND(0.200) [ND(0.200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	mg/L	ND(0.00200) [ND(0.00200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/L	ND(0.00500) [ND(0.00500)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/L	0.0823 J [0.0781 J]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/L	ND(0.00100) [ND(0.00100)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/L	ND(0.00100) [ND(0.00100)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	mg/L	200 [192]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium Total	mg/L	ND(0.00500) [ND(0.00500)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/L	ND(0.00700) [ND(0.00700)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/L	ND(0.00200) [ND(0.00200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide (total)	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	mg/L	3.42 [3.28]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/L	ND(0.00300) [ND(0.00300)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	82.2 [78.9]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/L	0.141 [0.135]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/L	ND(0.000200) [ND(0.000200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/L	ND(0.0200) [ND(0.0200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	mg/L	7.63 [7.27]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/L	ND(0.00500) [ND(0.00500)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/L	ND(0.000200) [ND(0.000200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	mg/L	676 (IDW) [664 (IDW)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/L	ND(0.00100) [ND(0.00100)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/L	ND(0.00400) [ND(0.00400)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/L	ND(0.0200) [ND(0.0200)]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Dissolved															
Aluminum	mg/L	ND(0.2) [ND(0.2)]	ND(0.2) [ND(0.2)]	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)	NA	ND(0.2)	ND(0.2)	ND(0.2)	ND(0.2)
Antimony	mg/L	ND(0.002) [ND(0.002)]	ND(0.002) [ND(0.002)]	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	NA	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)
Arsenic	mg/L	ND(0.005) [ND(0.005)]	ND(0.005) [0.0042 J]	ND(0.005)	0.0295 (IDW)	0.033 (IDW)	0.0039 J	0.0283 (IDW)	0.0226 (IDW)	0.0181 (IDW)	NA	ND(0.005)	ND(0.005)	ND(0.005)	0.0047 J
Barium	mg/L	0.0823 J [0.0781 J]	0.0432 J [0.0425 J]	0.029 J	0.57	0.597	0.055 J	0.806	0.421	0.387	NA	0.233	0.242	0.0234 J	0.0317 J
Beryllium	mg/L	ND(0.001) [ND(0.001)]	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	NA	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Cadmium	mg/L	ND(0.001) [ND(0.001)]	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)	ND(0.001)	0.0022	ND(0.001)	ND(0.001)	ND(0.001)	NA	ND(0.001)	ND(0.001)	ND(0.001)	0.00097 J
Calcium	mg/L	201 [191]	167 [165]	117	219	222	123	233	233	209	NA	374	374	52.9	66.7
Chromium Total	mg/L	ND(0.005) [ND(0.005)]	ND(0.005) [ND(0.005)]	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Cobalt	mg/L	ND(0.007) [ND(0.007)]	ND(0.007) [0.0018 J]	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)	0.0019 J	ND(0.007)	ND(0.007)	NA	ND(0.007)	ND(0.007)	ND(0.007)	ND(0.007)
Copper	mg/L	ND(0.002) [ND(0.002)]	ND(0.002) [ND(0.002)]	0.00039 J	ND(0.002)	ND(0.002)	ND(0.0022)	ND(0.002)	ND(0.002)	ND(0.002)	NA	0.0031	0.00053 J	ND(0.0022)	ND(0.002)
Cyanide	mg/L	ND(0.01) [ND(0.01)]	ND(0.01) [ND(0.01)]	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	NA	ND(0.01)	ND(0.01)	0.005 J
Iron	mg/L	3.42 [3.25]	8.11 [7.98]	1.07	32.7 (IDW)	31.8 (IDW)	0.276	18.3 (IDW)	34.2 (IDW)	28.7 (IDW)	NA	ND(0.1)	7.12	ND(0.1)	ND(0.1)
Lead	mg/L	ND(0.003) [ND(0.003)]	ND(0.003) [ND(0.003)]	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)	NA	ND(0.003)	ND(0.003)	ND(0.003)	ND(0.003)
Magnesium	mg/L	82.5 [78.6]	51.6 [51]	37.4	62.9	61.6	3.3	98.4	62.1	54.5	NA	143	145	37.2	48.8
Manganese	mg/L	0.141 [0.135]	1.63 [1.61]	1.37	0.696	0.716	0.0078 J	0.283	0.756	0.687	NA	0.935	0.968	ND(0.015)	0.0059 J
Mercury	mg/L	ND(0.0002) [ND(0.0002)]	ND(0.0002) [ND(0.0002)]	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)
Nickel	mg/L	ND(0.02) [ND(0.02)]	ND(0.02) [ND(0.02)]	0.0041 J	ND(0.02)	ND(0.02)	0.0043 J	0.0072 J	ND(0.02)	ND(0.02)	NA	ND(0.02)	ND(0.02)	ND(0.02)	ND(0.02)
Potassium	mg/L	7.68 J [7.24 J]	10.7 J [10.6 J]	5.24	2.62 J	2.48	12.4 J	19	2.18 J	1.93	NA	1.84 J	1.62	3.52 J	2.41 J
Selenium	mg/L	ND(0.005) [ND(0.005)]	ND(0.005) [ND(0.005)]	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	NA	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)
Silver	mg/L	ND(0.0002) [ND(0.0002)]	ND(0.0002) [ND(0.0002)]	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)	NA	ND(0.0002)	ND(0.0002)	ND(0.0002)	ND(0.0002)
Sodium	mg/L	681 (IDW) [664 (IDW)]	26.7 [26.4]	11.7	198	186	84.2	325	212	183	NA	152	147	65	79
Thallium	mg/L	ND(0.001) [ND(0.001)]	ND(0.001) [ND(0.001)]	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	NA	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)
Vanadium	mg/L	ND(0.004) [ND(0.004)]	ND(0.004) [ND(0.004)]	ND(0.004)	ND(0.004)	ND(0.004)	0.0076	ND(0.004)	ND(0.004)	ND(0.004)	NA	ND(0.004)	ND(0.004)	ND(0.004)	ND(0.004)
Zinc	mg/L	ND(0.02) [ND(0.02)]	0.0209 [0.0216]	ND(0.02)	ND(0.02)	ND(0.02)	0.0204	ND(0.02)	ND(0.02)	ND(0.02)	NA	0.0057 J	ND(0.02)	ND(0.02)	ND(0.02)

See Generic Notes in Table 10.

TABLE 9
INDICATOR PARAMETERS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	Groundwater Surface Water Interface Criteria (GSI)	Industrial & Commercial II, III, & IV Drinking Water Criteria (IDW)	B-7R 11/28/07	BBL-MW1 03/13/08	MW-101WT 06/03/08	MW-107S1 06/06/08	MW-107WT 04/03/08	MW-108S1 06/03/08	MW-108S2 06/06/08	MW-110WTR 04/02/08	MW-111S2 06/06/08
Ammonia Nitrogen	mg/L	- -	10 {N}	1.7	NA	0.2	1.2	0.3	NA	3.5	0.09 J	1.4
Chloride	mg/L	{FF}	250 {E}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Estimated Un-ionized Ammonia	mg/L	0.053 {CC}	- -	0.1224(GSI)	NA	0.0144	0.0864(GSI)	0.0216	NA	0.252(GSI)	0.00648 J	0.1008(GSI)
Nitrate (as N)	mg/L	{NA}	10 {B,A,N}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrite (as N)	mg/L	{NA}	1 {B,A,N}	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	S.U.	{6.5 to 9.0}	{6.5 to 8.5 (E)}	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphorus	mg/L	1 {EE}	240	0.2	NA	NA	NA	0.03 J	NA	NA	0.2	NA
Sulfate	mg/L	{NA}	250 {E}	NA	12	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids (TDS)	mg/L	500 {EE}	500 {E}	440	NA	860 (IDW)	800(GSI,IDW)	NA	1,100(GSI,IDW)	910(GSI,IDW)	1,500(GSI,IDW)	670(GSI,IDW)

Location ID: / Date Collected:	Units	Groundwater Surface Water	Industrial & Commercial II,	MW-111WT 04/02/08	MW-113WT 06/03/08	MW-114S2 06/06/08	MW-117S1 12/07/07	MW-117S1 03/14/08	MW-117S2 12/07/07	MW-117S2 04/01/08	MW-117WT 12/07/07	MW-117WT 03/14/08
Ammonia Nitrogen	mg/L	- -	10 {N}	0.5 [0.5]	0.7	2.5	22 (IDW)	1.2	3.9	3.8	68 (IDW)	68 (IDW)
Chloride	mg/L	{FF}	250 {E}	NA	NA	NA	268 (IDW)	274 (IDW)	378 (IDW)	411 (IDW)	3,690 (IDW)	3,220 (IDW)
Estimated Un-ionized Ammonia	mg/L	0.053 {CC}	- -	0.036 [0.036]	0.0504	0.18(GSI)	1.584	0.0864	0.2808	0.2736	4.896	4.896
Nitrate (as N)	mg/L	{NA}	10 {B,A,N}	NA	NA	NA	ND(0.1)	ND(0.1 J)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2 J)
Nitrite (as N)	mg/L	{NA}	1 {B,A,N}	NA	NA	NA	ND(0.1)	ND(0.1 J)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.2 J)
pH	S.U.	{6.5 to 9.0}	{6.5 to 8.5 (E)}	NA	NA	NA	7	6.9	7.2	7	6.4	6.3
Phosphorus	mg/L	1 {EE}	240	0.4 [0.4]	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	{NA}	250 {E}	NA	NA	NA	ND(1)	ND(1)	11.3	15.6	0.8 J	ND(2)
Total Dissolved Solids (TDS)	mg/L	500 {EE}	500 {E}	580(GSI,IDW) [590(GSI,IDW)]	NA	560(GSI,IDW)	950 (IDW)	940 (IDW)	1,000 (IDW)	1,000 (IDW)	7,600 (IDW)	5,900 (IDW

See Generic Notes in Table 10.

TABLE 9
INDICATOR PARAMETERS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	MW-118S1 12/07/07	MW-118S1 04/01/08	MW-118S2 12/07/07	MW-118S2 04/01/08	MW-118WT 12/07/07	MW-118WT 04/01/08	MW-125WT 05/29/08	MW-128S1 12/05/07	MW-128S1 03/12/08	MW-128WT 12/05/07	MW-128WT 03/12/08	MW-129WT 06/03/08
Ammonia Nitrogen	mg/L	8.5	8.1	1.2	1.6	42 (IDW)	38 (IDW)	0.2	3.3	3.9	130 (IDW)	70 (IDW)	0.5
Chloride	mg/L	275 (IDW)	310 (IDW)	422 (IDW)	498 (IDW)	1,760 (IDW)	1,800 (IDW)	NA	1,300 (IDW)	1,170 (IDW)	1,140 (IDW)	517 (IDW)	NA
Estimated Un-ionized Ammonia	mg/L	0.612	0.5832	0.0864	0.1152	3.024	2.736	0.0144	0.2376	0.2808	9.36	5.04	0.036
Nitrate (as N)	mg/L	ND(0.1)	ND(0.1)	0.2	0.6	ND(0.1)	ND(0.1)	NA	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	NA
Nitrite (as N)	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	NA	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	NA
pH	S.U.	7	6.9	7.6	7.4	6.7	6.6	NA	9.1	7.1	7.8	7.8	NA
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	ND(1)	4.7	4.2	37.7	17.6	23.5	NA	38.9	29.5	34.1	136	NA
Total Dissolved Solids (TDS)	mg/L	900 (IDW)	960 (IDW)	1,100 (IDW)	1,100 (IDW)	4,600 (IDW)	4,600 (IDW)	480	2,500 J (IDW)	2,400 (IDW)	2,400 (IDW)	1,300 (IDW)	1,000 (IDW)

Location ID: / Date Collected:	Units	MW-138WT 06/03/08	MW-139WT 06/03/08	MW-149WT 04/03/08	MW-183WT 01/09/08	MW-183WT 03/12/08	TWW-1 05/29/08	UST7-2 03/13/08	UST7-3R 03/13/08	UST7-4 03/13/08	UST7-5 03/13/08	X-1A 12/07/07	X-1A 03/12/08
Ammonia Nitrogen	mg/L	0.2	0.3	0.8	0.4 [0.3]	0.3	0.2	NA	NA	NA	NA	33 (IDW)	27 (IDW)
Chloride	mg/L	NA	NA	NA	147 [148]	147	NA	NA	NA	NA	NA	166	90.8
Estimated Un-ionized Ammonia	mg/L	0.0144	0.0216	0.0576(GSI)	0.0288 [0.0216]	0.0216	0.0144	NA	NA	NA	NA	2.376	1.944
Nitrate (as N)	mg/L	NA	NA	NA	ND(0.1) [ND(0.1)]	ND(0.1)	NA	NA	NA	NA	NA	ND(0.1)	ND(0.1)
Nitrite (as N)	mg/L	NA	NA	NA	ND(0.1) [ND(0.1)]	ND(0.1)	NA	NA	NA	NA	NA	ND(0.1)	ND(0.1)
pH	S.U.	NA	NA	NA	7.3 [7.3]	7.3	NA	NA	NA	NA	NA	7	7.1
Phosphorus	mg/L	NA	NA	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	NA	NA	NA	1 [0.7 J]	ND(2.6)	NA	3 J	15 J	11	120 [120]	ND(1)	ND(1)
Total Dissolved Solids (TDS)	mg/L	810 (IDW)	950 (IDW)	NA	440 [470]	520(GSI,IDW)	1,600 (IDW)	NA	NA	NA	NA	900 (IDW)	750 (IDW)

See Generic Notes in Table 10.

TABLE 9
INDICATOR PARAMETERS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	X-1B 12/06/07	X-1B 03/12/08	X-1CR2 12/07/07	X-1CR2 03/12/08	X-2A 12/04/07	X-2A 03/10/08	X-2B 12/04/07	X-2B 03/10/08	X-2C 12/04/07
Ammonia Nitrogen	mg/L	22 (IDW)	42 (IDW)	ND(0.2)	ND(0.2)	7.7	0.4	1.2	0.4	ND(0.2)
Chloride	mg/L	984 (IDW)	1,050 (IDW)	157	156	450 (IDW)	660 (IDW)	347 (IDW)	734 (IDW)	720 (IDW)
Estimated Un-ionized Ammonia	mg/L	1.584	3.024	ND(0.0144)	ND(0.0144)	0.5544	0.0288	0.0864	0.0288	ND(0.0144)
Nitrate (as N)	mg/L	ND(0.1)	ND(0.1)	0.1	0.2	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
Nitrite (as N)	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
pH	S.U.	6.9	6.9	7.6	7.8	8.5	8.1	7.2	7.1	7.1
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	8.9	ND(1.4)	251 (IDW)	249	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
Total Dissolved Solids (TDS)	mg/L	2,600 (IDW)	3,000 (IDW)	720 (IDW)	730 (IDW)	970 (IDW)	1,200 (IDW)	1,200 (IDW)	1,800 (IDW)	1,700 J (IDW)

Location ID: / Date Collected:	Units	X-2C 03/10/08	X-2DAUG 12/05/07	X-2DAUG 03/10/08	X-4CAUGR 01/09/08	X-4CAUGR 03/12/08	X-4D 01/09/08	X-4D 04/01/08	X-4D 06/05/08	X-4D 07/10/08
Ammonia Nitrogen	mg/L	2.5 [2.6]	ND(0.2)	0.5	1.5	2	6.9	8.8 [8.1]	6.2	7.5
Chloride	mg/L	358 (IDW) [359 (IDW)]	434 (IDW)	353 (IDW)	160	108	1,400 (IDW)	1,460 (IDW) [1,460 (IDW)]	NA	1,340 (IDW)
Estimated Un-ionized Ammonia	mg/L	0.18 [0.1872]	ND(0.0144)	0.036	0.108(GSI)	0.144(GSI)	0.4968(GSI)	0.6336(GSI) [0.5832(GSI)]	0.4464(GSI)	0.54(GSI)
Nitrate (as N)	mg/L	ND(0.1) [ND(0.1)]	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1) [ND(0.1)]	NA	ND(0.1)
Nitrite (as N)	mg/L	ND(0.1) [ND(0.1)]	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(2)	ND(0.1) [ND(0.1)]	NA	ND(0.1 J)
pH	S.U.	7 [7.1]	7	7.1	7.2	7.3	7.6	7.3 [7.4]	NA	7.4
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	1.8 [0.9 J]	ND(1)	0.3 J	ND(1)	ND(1)	94.4	118 [118]	NA	122
Total Dissolved Solids (TDS)	mg/L	1,200 (IDW) [1,200 (IDW)]	1,200 J (IDW)	1,100 (IDW)	550(GSI,IDW)	580(GSI,IDW)	2,300(GSI,IDW)	2,500(GSI,IDW) [2,600 J(GSI,IDW)]	3,300(GSI,IDW)	3,100(GSI,IDW)

See Generic Notes in Table 10.

TABLE 9
INDICATOR PARAMETERS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

GENERAL MOTORS CORPORATION
SAGINAW MALLEABLE IRON PLANT
SAGINAW, MICHIGAN

Location ID: / Date Collected:	Units	X-9AR 01/10/08	X-9AR 03/11/08	X-9BR 01/08/08	X-9BR 03/11/08	X-9CAUG 01/08/08	X-9CR 03/11/08	X-9D 01/08/08	X-9D 03/11/08	X-9D 06/05/08	X-9D 07/10/08
Ammonia Nitrogen	mg/L	0.3	ND(0.2)	5.2	5	3.2	3.3	8.5	9.7	5.9	6.7 [6.2]
Chloride	mg/L	58	10.7	200	181	145	130	1,370 (IDW)	1,340 (IDW)	NA	1,330 (IDW) [1,320 (IDW)]
Estimated Un-ionized Ammonia	mg/L	0.0216	ND(0.0144)	0.3744(GSI)	0.36(GSI)	0.2304(GSI)	0.2376(GSI)	0.612(GSI)	0.6984(GSI)	0.4248(GSI)	0.4824(GSI) [0.4464(GSI)]
Nitrate (as N)	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	0.2	ND(0.1)	ND(0.1)	ND(0.1)	NA	ND(0.1) [ND(0.1)]
Nitrite (as N)	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1 J)	NA	ND(0.1) [ND(0.1)]
pH	S.U.	7.1	7.4	7.2	7.1	7.4	7.1	7.4	7.3	NA	7.3 [7.3]
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	0.4 J	35.5	ND(1)	ND(1)	0.3 J	ND(1)	194	185	NA	192 [190]
Total Dissolved Solids (TDS)	mg/L	770(GSI,IDW)	600(GSI,IDW)	810(GSI,IDW)	760(GSI,IDW)	700(GSI,IDW)	680(GSI,IDW)	2,400(GSI,IDW)	2,500(GSI,IDW)	2,900(GSI,IDW)	3,100(GSI,IDW) [3,400(GSI,IDW)]

Location ID: / Date Collected:	Units	X-10AR2 04/02/08	X-10BR 12/04/07	X-10BR 03/12/08	X-10CR 12/04/07	X-10CR 03/12/08	X-10DAUG 12/04/07	X-10DAUG 03/12/08	X-16A 12/05/07	X-16A 04/02/08	X-16B 12/03/07
Ammonia Nitrogen	mg/L	0.1 J	4.5	4	ND(0.2)	22 (IDW)	3.1	4.2	0.4	0.4	ND(0.2)
Chloride	mg/L	1.4	497 (IDW)	502 (IDW)	63.9	912 (IDW)	530 (IDW)	542 (IDW)	545 (IDW)	556 (IDW)	36.7
Estimated Un-ionized Ammonia	mg/L	0.0072 J	0.324	0.288	ND(0.0144)	1.584	0.2232	0.3024	0.0288	0.0288	ND(0.0144)
Nitrate (as N)	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	3.1	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	0.3
Nitrite (as N)	mg/L	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)	ND(0.1)
pH	S.U.	7	6.9	6.8	7	6.9	6.9	6.8	7	7	7.9
Phosphorus	mg/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	128	ND(1)	ND(1)	311 (IDW)	ND(1)	0.2 J	ND(1)	427 (IDW)	466 (IDW)	206
Total Dissolved Solids (TDS)	mg/L	530 (IDW)	1,400 (IDW)	1,400 (IDW)	710 (IDW)	2,100 (IDW)	1,500 (IDW)	1,500 (IDW)	2,000 J (IDW)	1,900 J (IDW)	620 (IDW)

See Generic Notes in Table 10.

TABLE 9
INDICATOR PARAMETERS IN GROUNDWATER
REALM, INC. GREEN POINT LANDFILL ENVIRONMENTAL MONITORING PROGRAM

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Location ID: / Date Collected:	Units	X-16B 04/01/08	X-17R 05/29/08	X-18 05/29/08	X-19AR 05/29/08
Ammonia Nitrogen	mg/L	0.06 J	0.07 J	0.1 J [0.1 J]	0.2
Chloride	mg/L	29.3	NA	NA	NA
Estimated Un-ionized Ammonia	mg/L	0.00432 J	0.00504 J	0.0072 J [0.0072 J]	0.0144
Nitrate (as N)	mg/L	0.2	NA	NA	NA
Nitrite (as N)	mg/L	ND(0.1)	NA	NA	NA
pH	S.U.	7.6	NA	NA	NA
Phosphorus	mg/L	NA	NA	NA	NA
Sulfate	mg/L	216	NA	NA	NA
Total Dissolved Solids (TDS)	mg/L	590 (IDW)	2,200 (IDW)	4,100 (IDW) [4,500 (IDW)]	890 (IDW)

See Generic Notes in Table 10.

TABLE 10
GENERIC NOTES FOR GROUNDWATER ANALYTICAL DATA TABLES
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General Notes:

Samples were collected by ARCADIS, and submitted Test America Laboratories in North Canton, Ohio for analysis.

Duplicate results are presented in brackets.

[1] Duplicate samples were also analyzed by Merit Laboratories of East Lansing, Michigan and results are shown in parentheses {}.

Groundwater concentrations are presented in milligram per liter (mg/L), except where noted.

Total PCBs reported as the sum of PCB Aroclors.

The estimated unionized ammonia (NH_3) concentrations calculated for the monitoring wells located adjacent to the Saginaw River are based on the MDEQ default value of 7.2% of total ammonia nitrogen for warm water surface water.

Shaded and bolded cells represent constituent concentrations that exceed at least one of the listed Michigan Part 201 Criteria:

For Groundwater:

IDW = Industrial Drinking Water criteria, updated January 2006.

For Groundwater Adjacent to Saginaw River:

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:

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MDEQ Criteria Qualifiers (continued):

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

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

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MDEQ Criteria Qualifiers (continued):

(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

(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.

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MDEQ Criteria Qualifiers (continued):

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

TABLE 10
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MDEQ Criteria Qualifiers (continued):

Hazardous Substance	Chemical Abstract Service Number	Surface Water Human Drinking Water Values (HDV) (ug/L)	Soil GSI Protection Criteria (HDV) (ug/L)
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.

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