

*Transmitted Via FedEx*

October 10, 2002

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

Re: Annual Progress Report – October 2001 through September 2002  
General Motors Corporation Saginaw Malleable Iron Plant Property and  
REALM, Inc. Green Point Landfill and Drum Remediation Area  
Saginaw, Michigan  
BBL Project #: 0276 276.08 #2.04

Dear Mr. Brouillet:

This progress report presents a summary of the work activities conducted during the period of October 2001 through September 2002 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) that were 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 Activities and Correspondence**

The following is a summary of the significant Remedial Investigation/Feasibility Study (RI/FS) activities and correspondence completed during the period from October 1, 2001 through September 30, 2002.

#### ***Deliverables Submitted (Tables 10-1 and 10-2 of the MDEQ-Approved RI/FS Work Plan)***

Schedule Tables 10-1 and 10-2 of the *RI/FS Work Plan* (BBL, October 1997; revised January 1998) have been updated to reflect actual submittal dates, and are included as Attachment 1. All deliverables have been submitted to the MDEQ on or before the deliverable due dates specified in the MDEQ-approved October 1997 *RI/FS Work Plan* (schedule tables revised January 1998).

- Monthly reports have been transmitted to the MDEQ as specified in the RI/FS Work Plan (see references).
- The annual report for October 2000 through September 2001 was submitted to the MDEQ on October 12, 2001 (BBL, October 2001a).
- The draft Human Health Evaluation and Feasibility Study (FS) were transmitted to the MDEQ for review on January 3, 2002.

- The Green Point Landfill Environmental Monitoring Program Annual Report for 2001 was transmitted to the MDEQ on January 17, 2002.

### ***Key Correspondence***

- A letter report presenting the results of the thirteenth quarterly groundwater monitoring event at the Former UST #7 Area (BBL, October 2001b) was transmitted to the MDEQ.
- A letter dated November 13, 2001 was sent from Brenda Brouillet (MDEQ) to Cheryl Hiatt (GM) (Brouillet, B., November 2001). The letter agreed to a change from quarterly to semi-annual groundwater sampling at the Former UST #7 area.
- A letter dated January 10, 2002 was sent from Allan Brouillet (MDEQ) to Ed Peterson (GM) (Brouillet, A., January 2002). The letter acknowledged receipt of the FS, requested an extension of the MDEQ review period, and requested a work plan to address debris found at the ground surface in a remote area of the site west of the Green Point Landfill.
- A letter was sent to the MDEQ on behalf of GM (BBL, April 2002b), which provided a response to MDEQ's January 10, 2002 letter regarding the observation of debris at the ground surface in the northwest corner of the REALM Green Point Landfill property.
- A letter report presenting the results of the February 2002 Semi-Annual Groundwater Monitoring Event at the Former UST #7 Area (BBL, April 2002c) was transmitted to the MDEQ.
- A letter dated June 19, 2002 was sent by the Michigan Department of Environmental Quality to GM (Brouillet, B., June 2002), providing comments on the January 2002 draft FS.
- A letter dated September 16, 2002 was sent to the MDEQ by BBL (BBL, September 2002b), which confirmed a meeting date of October 30, 2002 to discuss MDEQ comments on the site FS. Based on the October 30, 2002 meeting date, a January 30, 2003 due date for the final FS was proposed.
- A letter report presenting the results of the August 2002 Semi-Annual Groundwater Monitoring Event at the Former UST #7 Area (BBL, September 2002c) was transmitted to the MDEQ.

### ***Supplemental RI/FS Sampling Activities***

- Miscellaneous drilling activities were completed at the site the week of November 5, 2001. Damaged monitoring well MW-110WT was replaced (MW-110WTR), and a new monitoring well was installed between MW-112WT and the Saginaw River (MW-185WT) to establish a new GSI monitoring point. To minimize the disturbance of the subsurface during well installation, the wells were completed by advancing a pilot hole using 2.25" ID hollow stem augers, and then driving 6" ID flush-joint casing with a PVC end cap to the desired well depth. The wells were then set within the casing and the casing was removed. These wells were sampled the week of November 26, 2002 using "ultra" low-flow sampling procedures. The surface casings of six flush-mount monitoring wells located in the vicinity of the light non-aqueous phase liquid (LNAPL) collection system were also repaired.
- The laboratory data for groundwater samples collected from the two new Saginaw River perimeter wells in November 2001 were non-detect for polychlorinated biphenyls (PCBs), and the QA/QC data review package was included in the December 2001 monthly report (BBL, January 2002b).

### ***Supplemental Groundwater Investigation Activities North of the Drum Remediation Area***

No additional groundwater investigation activities took place north of the Drum Remediation Area for the period of October 2001 through September 2002.

***Former Underground Storage Tank (UST) #7 Area***

Results from the August 2001 (thirteenth) quarterly sampling event were transmitted to the MDEQ on October 23, 2001 (BBL, October 2001b). Following the thirteenth quarterly sampling event, the MDEQ agreed to change to a semi-annual sampling program (Brouillet, B., November 2001). Semi-annual groundwater sampling activities took place in February 2002 and August 2002. Results of the February activities were sent to the MDEQ on April 15, 2002 (BBL, April 2002c), and the August 2002 results were sent to the MDEQ on September 26, 2002 (BBL, September 2002c).

***CTC Parking Lot and Fire Suppression System***

Soil boring programs were completed in the CTC Parking Lot and in two areas adjacent to underground Fire Suppression System lines as part of the Saginaw Malleable Iron Plant's Due Care procedures to ensure worker protection during planned excavation activities. Summary tables of analytical data collected during the boring programs were provided in the February 2002 monthly report and are also included in tables 2a through 2m of this report.

***Sewer Activities***

In accordance with a Consent Order with the City of Saginaw, GM collected samples on a weekly basis for 13 weeks during October through December 2001, from sewer manholes CFD-01, CFD-02, and CFD-06. Following the weekly sampling program, the sampling frequency was decreased, and samples are currently collected on a monthly basis from the three manholes.

Discussions were held periodically with Delphi Automotive Systems regarding the partial separation of Saginaw Malleable Iron's sewer systems from those of the adjacent Steering Gear Plant 2.

***Engineered Water Conveyance System Ditches***

No additional activities took place in the engineered water conveyance system ditches for the period of October 2001 through September 2002.

***Quench Pit LNAPL Recovery Program***

- Monitoring wells installed in the Quench Pit area containing LNAPL were bailed on a daily basis during the work week by a GM disposal contractor through March 2002.
- An automated skimmer pump was installed in the Quench Pit Area (monitoring well QPTW-3) on February 8, 2002. A total of approximately 640 gallons of LNAPL were recovered by the system through September 27, 2002. LNAPL and groundwater levels are being periodically monitored to evaluate performance of the automated system.

***LNAPL Recovery System***

- The LNAPL recovery system operated during the majority of the October 2001 through September 2002 time period. The system did not operate from November 12, 2001 through the middle of December 2001 following the discovery that excavation activities in the area had broken the phone line that provides automatic notification of system problems. The system was restarted after the phone line was reinstalled. The system was shut down on July 1, 2002, due to a malfunction of electrical connections to a newly installed pump. This pump did not turn off as designed when the rest of the system was shutdown, causing water to back up into the oil/water separator, the building containment area, and into a small swale west of the building. The water did not enter the plant sewer system or leave the property. MDEQ was notified of the problem on July 2, 2002. The system will remain shutdown until repairs are made to the system's electrical wiring.

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

| Operation                                                                                | Approximate Volume of Oil Recovered (Gallons) <sup>1</sup> | Approximate Volume of Groundwater Treated (Gallons) |
|------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------|
| LNAPL System<br>Total through September 30, 2002                                         | 2,731                                                      | 1,697,920                                           |
| Water/LNAPL Pumped from Reverse Siphon of 42-inch Sewer Line – Total through May 6, 2002 | 30+                                                        | 450                                                 |
| Total hand bailed in 1996 and 1997                                                       | 710                                                        | None                                                |
| Repair of 42-inch Storm Sewer Line (recovery from abandoned 30-inch line)                | 5,000+                                                     | Specific amount unknown                             |
| Repair (slip lining) of 42-inch storm sewer line                                         | approximately 3,000+                                       | Specific amount unknown                             |
| <b>Totals:</b>                                                                           | 11,471+                                                    | 1,698,370                                           |

**Note:** <sup>1</sup> This total may include some water that is drawn through the LNAPL recovery lines under certain conditions of rapid water table fluctuation.

- Groundwater and LNAPL elevation measurements are made on a monthly basis in the vicinity of the LNAPL recovery system to monitor LNAPL distribution during system operation. Table 3 includes the LNAPL and groundwater measurement data.

#### ***Green Point Landfill***

- Post-closure inspections of the Green Point Landfill cap were completed on October 16, 2001, January 10, 2002, April 24, 2002, and September 3, 2002. The Post-Closure Cap Inspection Forms were submitted with the corresponding monthly reports.
- Monitoring well X-10AR, located along the southern edge of the landfill, was replaced during the week of November 5, 2001. This well had been damaged and could not be sampled during the 2001 annual Green Point Landfill groundwater monitoring event. A sample was collected from the replacement well during the week of November 26, 2001.
- On May 17, 2002, a site meeting was held with a contractor (Murin Company) to look at the required landfill cap maintenance activities and fence repairs.
- The annual Green Point Landfill groundwater-sampling event was completed the week of June 24, 2002, and the data are included in Tables 4 and 5.

#### ***Meetings***

- No meetings were held with the MDEQ from October 2001 through September 2002.

#### **Anticipated RI/FS Activities**

The following activities are anticipated to be completed during the period from October 2002 through September 2003:

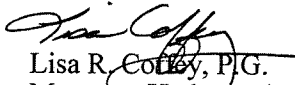
- A meeting is scheduled for October 30, 2002, between GM, WMI, and the MDEQ to discuss the MDEQ's comments on the draft FS.
- Submittal of the Final FS on or before January 30, 2003.
- Collection of groundwater samples from select monitoring wells located adjacent to the Saginaw River using ultra low-flow sampling procedures. The collected samples will be analyzed for PCBs and/or select inorganic constituents that were previously detected.

BLASLAND, BOUCK & LEE, INC.  
engineers & scientists

- Submittal of the draft Remedial Action Plan within seven months of MDEQ approval of the FS.
- Continued operation of the LNAPL Recovery/Groundwater Treatment System.
- Continued use of the automated skimmer pump to remove LNAPL in the Quench Pit Area.
- Semi-annual groundwater sampling activities at the Former UST #7 Area.
- Inspections of the Green Point Landfill cap (tentatively scheduled for December 2002, March 2003, June 2003, and September 2003).
- Completion of the Spring 2003 Green Point Landfill Environmental Monitoring Program groundwater sampling event (tentatively scheduled for May 2003).

Sincerely,

BLASLAND, BOUCK & LEE, INC.

  
Lisa R. Coffey, P.G.  
Manager, Hydrogeology

JAS/plf  
Attachments

cc: John Fordell Leone, Esq., Assistant Attorney General  
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Ms. Katie Moertl, Attorney at Law, Quarles & Brady  
Ms. Cheryl Hiatt/Mr. Edward Peterson, GM Remediation Team  
Mr. James Forney, Waste Management, Inc.  
Mr. Phil Mazor, Waste Management, Inc.  
Mr. Jeff Jatczak/Mr. Joseph Toth, GM SMI  
Mr. Michael J. Gefell, P.G., Blasland, Bouck, & Lee, Inc.

## ***References***

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## Annual Progress Report – References

### General Motors Corporation Saginaw Malleable Iron Plant Property and REALM, Inc. Green Point Landfill and Drum Remediation Area

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- Blasland, Bouck & Lee, Inc. (BBL), October 2001a. *Annual Progress Report – October 2000 to September 2001, General Motors Corporation Saginaw Malleable Iron Plant Property and REALM, Inc. Green Point Landfill and Drum Remediation Area, Saginaw, Michigan*. October 12, 2001.
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- Blasland, Bouck & Lee, Inc. (BBL), February 2002. *Monthly Report #86 (January 2002)*, February 14, 2002.
- Blasland, Bouck & Lee, Inc. (BBL), March 2002. *Monthly Report #87 (February 2002)*, March 15, 2002.
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### General Motors Corporation Saginaw Malleable Iron Plant Property and REALM, Inc. Green Point Landfill and Drum Remediation Area

- Blasland, Bouck & Lee, Inc. (BBL), September 2002a. *Monthly Report #93 (August 2002)*, September 11, 2002.
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- Brouillet, Allan C. (MDEQ), October 1999. Letter to GM, Subject: *Annual Progress Report, General Motors Corporation Saginaw Malleable Iron Plant, Consent Judgment #98-22686-CE-2*, October 22, 1999.
- Brouillet, Allan C. (MDEQ), January 2002. Letter to GM, Subject: *Acknowledgement of receipt Draft Feasibility Study Report; Request for Extension of Comment Period; Request for Additional Response Activity*, January 10, 2002.
- Brouillet, Brenda J. (MDEQ), November 2001. Letter to GM, Subject: *General Motors Malleable Iron Plant, Thirteenth Quarterly Groundwater Monitoring Report, Former UST #7 Area, Consent Judgment No, 98-22686-CE-2*, November 13, 2001.
- Brouillet, Brenda J. (MDEQ), June 2002. Letter to GM, Subject: *Draft Feasibility Study, Green Point Landfill/General Motors Saginaw Malleable Iron Facility, Consent Decree No. 98-22686-CE-2*, June 19, 2002.

## ***Tables***

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TABLE 1

**CURRENT AND HISTORIC GROUNDWATER QUALITY DATA  
FORMER UST #7 AREA**

**ANNUAL PROGRESS REPORT  
GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT  
SAGINAW, MICHIGAN**

|                                                                                  |             | <b>Benzene</b> | <b>Ethylbenzene</b> | <b>Toluene</b> | <b>Total Xylenes</b> | <b>Lead</b> | <b>Sulfate (mg/L)</b> |
|----------------------------------------------------------------------------------|-------------|----------------|---------------------|----------------|----------------------|-------------|-----------------------|
| <b>Industrial &amp; Commercial II, III &amp; IV<br/>Drinking Water Criteria*</b> |             | 5 {A,I}        | 74 {E,I}            | 790 {E,I}      | 280 {E,I}            | 4 {L}       | 250 {E}               |
| <b>Groundwater Contact Criteria*</b>                                             |             | 11,000         | 170,000 {I,S}       | 530,000 {I,S}  | 190,000 {I,S}        | ID          | ID                    |
| <b>Residential Groundwater Volatilization to Air<br/>Inhalation Criteria*</b>    |             | 5,600          | 170,000 {I,S}       | 530,000 {I,S}  | 190,000 {I,S}        | NLV         | NLV                   |
| <b>Industrial Groundwater Volatilization to Air<br/>Inhalation Criteria*</b>     |             | 36,000         | 170,000 {I,S}       | 530,000 {I,S}  | 190,000 {I,S}        | NLV         | NLV                   |
| <b>Monitoring Well</b>                                                           | <b>Date</b> |                |                     |                |                      |             |                       |
| <b>BBL-MW1</b>                                                                   | 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 (1 U)   | 5 (4)                 |
|                                                                                  | 5/00        | 26             | 9.2                 | 1              | 2                    | 42          | 62.2                  |
| <b>BBL-MW2</b>                                                                   | 5/00        | 18 B           | 0.23 J              | 0.23 JB        | 1.1                  | 3 U         | 1 U                   |
| <b>BBL-MW3</b>                                                                   | 5/00        | 12             | 1 U                 | 1 U            | 3 U                  | 3 U         | 5 U                   |
| <b>BBL-MW4</b>                                                                   | 6/96        | 5 U            | 1 U                 | 1 U            | 3 U                  | 100 U       | NA                    |
|                                                                                  | 7/98        | 1 U            | 1 U                 | 1 U            | 1 U                  | 3 U         | NA                    |
|                                                                                  | 10/98       | 1 U            | 1 U                 | 1 U            | 1 U                  | 2           | NA                    |
|                                                                                  | 1/99        | 2              | 1 U                 | 1 U            | 2 U                  | 1 U         | NA                    |
|                                                                                  | 4/99        | 1              | 1 U                 | 1 U            | 2 U                  | 3 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 (1 U)      | 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                    |
| <b>BBL-MW5</b>                                                                   | 5/00        | 89             | 1.5 J               | 1.3 J          | 6.2                  | 3 U         | 1 U                   |
| <b>MW-135 WT</b>                                                                 | 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                    |
| <b>MW-139 WT</b>                                                                 | 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                   |

See notes, Page 3.

TABLE 1  
CURRENT AND HISTORIC GROUNDWATER QUALITY DATA  
FORMER UST #7 AREA

ANNUAL PROGRESS REPORT  
GENERAL MOTORS CORPORATION  
SAGINAW MALLEABLE IRON PLANT  
SAGINAW, MICHIGAN

|                                                                       |       | Benzene   | Ethylbenzene  | Toluene       | Total Xylenes | Lead        | Sulfate (mg/L) |
|-----------------------------------------------------------------------|-------|-----------|---------------|---------------|---------------|-------------|----------------|
| Industrial & Commercial II, III & IV<br>Drinking Water Criteria*      |       | 5 {A,I}   | 74 {E,I}      | 790 {E,I}     | 280 {E,I}     | 4 {L}       | 250 {E}        |
| Groundwater Contact Criteria*                                         |       | 11,000    | 170,000 {I,S} | 530,000 {I,S} | 190,000 {I,S} | ID          | ID             |
| Residential Groundwater Volatilization to Air<br>Inhalation Criteria* |       | 5,600     | 170,000 {I,S} | 530,000 {I,S} | 190,000 {I,S} | NLV         | NLV            |
| Industrial Groundwater Volatilization to Air<br>Inhalation Criteria*  |       | 36,000    | 170,000 {I,S} | 530,000 {I,S} | 190,000 {I,S} | NLV         | NLV            |
| Monitoring Well                                                       | Date  |           |               |               |               |             |                |
| UST 7-1                                                               | 5/00  | 97        | 5 U           | 0.68 J        | 5 U           | 27.7        | 663            |
| 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             |
| UST 7-3R                                                              | 8/02  | 1 U (1 U) | 1 U (1 U)     | 1 U (1 U)     | 1 U (1 U)     | 1 U (1 U)   | NA             |
|                                                                       | 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             |
| 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             |
| 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             |

See Notes, Page 3.

TABLE 1  
CURRENT AND HISTORIC GROUNDWATER QUALITY DATA  
FORMER UST #7 AREA

ANNUAL PROGRESS REPORT  
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, June, 2000.

{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 2A

## TCL VOC ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
CTC PARKING LOT BORING PROGRAM

| Constituents (ug/kg)      | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | CTC Parking Lot   |                   |                                  |                   |                   | Visitors<br>Exit  | Visitors<br>Entrance |
|---------------------------|-------------------------------------------------------|-------------------|-------------------|----------------------------------|-------------------|-------------------|-------------------|----------------------|
|                           |                                                       | PL-1<br>8/10/2001 | PL-2<br>8/10/2001 | PL-2<br>(Duplicate)<br>8/10/2001 | PL-3<br>8/10/2001 | PL-4<br>8/10/2001 | VE-1<br>8/10/2001 | VE-2<br>8/10/2001    |
| 1,1,1-Trichloroethane     | 460,000 {C}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 1,1,2,2-Tetrachloroethane | 370,000                                               | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 1,1,2-Trichloroethane     | 920,000 {C}                                           | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| 1,1-Dichloroethane        | 890,000 {C}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 1,1-Dichloroethene        | 570,000 {C,I}                                         | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 1,2-Dichloroethane        | 640,000 {I}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 1,2-Dichloroethene, Total | 640,000 {C}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 1,2-Dichloropropane       | 550,000 {C,I}                                         | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 2-Butanone                | 27,000,000 {C,I,AD}                                   | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| 2-Hexanone                | 2,500,000 {C}                                         | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| 4-Methyl-2-pentanone      | 2,700,000 {C,I}                                       | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Acetone                   | 110,000,000 {I}                                       | 13 U              | 11 U              | 12 U                             | 11 U              | 11 U              | 12 U              | 11 U                 |
| Benzene                   | 400,000 {C,I}                                         | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Bromodichloromethane      | 750,000                                               | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Bromoform                 | 870,000 {C}                                           | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| Bromomethane              | 1,600,000                                             | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 10 U              | 6 U                  |
| Carbon disulfide          | 280,000 {C,I,R,AD}                                    | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 3 J               | 6 U                  |
| Carbon tetrachloride      | 390,000 {C}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Chlorobenzene             | 260,000 {C,I}                                         | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| Dibromochloromethane      | 610,000 {C}                                           | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| Chloroethane              | 950,000 {C}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Chloroform                | 1,500,000 {C}                                         | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Chloromethane             | 1,100,000 {C,I}                                       | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| cis-1,3-Dichloropropene   |                                                       | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Ethylbenzene              | 140,000 {C,I}                                         | 6 U               | 5 UJ              | 2 J                              | 6 U               | 6 UJ              | 16 J              | 6 U                  |
| Methylene chloride        | 2,300,000 {C}                                         | 6 UJ              | 5 UJ              | 6 UJ                             | 6 UJ              | 6 UJ              | 6 UJ              | 6 UJ                 |
| Styrene                   | 520,000 {C}                                           | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| Tetrachloroethene         | 88,000 {C}                                            | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| Toluene                   | 250,000 {C,I}                                         | 1 J               | 5 UJ              | 4 J                              | 6 U               | 0.9 J             | 38 J              | 6 U                  |
| trans-1,3-Dichloropropene | 620,000 {C}                                           | 6 U               | 5 UJ              | 6 UJ                             | 6 U               | 6 UJ              | 6 UJ              | 6 U                  |
| Trichloroethene           | 500,000 {C}                                           | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Vinyl chloride            | 29,000                                                | 6 U               | 5 U               | 6 U                              | 6 U               | 6 U               | 6 U               | 6 U                  |
| Xylenes, Total            | 150,000 {C,I}                                         | 2 J               | 5 UJ              | 10 J                             | 6 U               | 6 UJ              | 79 J              | 6 U                  |

See generic notes pages.

TABLE 2B

## TCL SVOC ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
CTC PARKING LOT BORING PROGRAM

| Constituents (ug/kg)         | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | CTC Parking Lot   |                   |                                  |                   |                   | Visitors<br>Exit  | Visitors<br>Entrance |
|------------------------------|-------------------------------------------------------|-------------------|-------------------|----------------------------------|-------------------|-------------------|-------------------|----------------------|
|                              |                                                       | PL-1<br>8/10/2001 | PL-2<br>8/10/2001 | PL-2<br>(Duplicate)<br>8/10/2001 | PL-3<br>8/10/2001 | PL-4<br>8/10/2001 | VE-1<br>8/10/2001 | VE-2<br>8/10/2001    |
| 1,2,4-Trichlorobenzene       | 1,100,000 {C,AD}                                      | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 1,2-Dichlorobenzene          | 210,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 1,3-Dichlorobenzene          | 170,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 1,4-Dichlorobenzene          | 2,900,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,2'-oxybis(dichloropropane) |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,4,5-Trichlorophenol        | 110,000,000                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,4,6-Trichlorophenol        | 5,000,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,4-Dichlorophenol           | 1,800,000 {C,AD}                                      | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,4-Dimethylphenol           | 56,000,000                                            | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,4-Dinitrophenol            |                                                       | 840 U             | 720 U             | 820 U                            | 740 U             | 710 U             | 800 U             | 740 U                |
| 2,4-Dinitrotoluene           | 340,000                                               | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2,6-Dinitrotoluene           |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2-Chloronaphthalene          | 280,000,000                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2-Chlorophenol               | 6,900,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2-Methylnaphthalene          | 40,000,000                                            | 420 U             | 56 J              | 410 U                            | 370 U             | 240 J             | 400 U             | 54 J                 |
| 2-Methylphenol               | 56,000,000 {J}                                        | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2-Nitroaniline               |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 2-Nitrophenol                | 3,100,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 3,3'-Dichlorobenzidine       | 47,000                                                | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 3-Nitroaniline               |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4,6-Dinitro-2-methylphenol   | 390,000                                               | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Bromophenyl phenyl ether   |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Chloro-3-methylphenol      | 22,000,000                                            | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Chloroaniline              |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Chlorophenyl phenyl ether  |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Methylphenol               | 56,000,000 {J}                                        | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Nitroaniline               |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| 4-Nitrophenol                |                                                       | R                 | R                 | R                                | R                 | R                 | R                 | R                    |
| Acenaphthene                 | 200,000,000                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Acenaphthylene               | 8,000,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Anthracene                   | 1,000,000,000 {D}                                     | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Benzo(a)anthracene           | 100,000 {Q}                                           | 420 U             | 360 U             | 70 J                             | 370 U             | 44 J              | 400 U             | 130 J                |
| Benzo(a)pyrene               | 10,000 {Q}                                            | 420 U             | 360 U             | 74 J                             | 370 U             | 360 U             | 400 U             | 150 J                |
| Benzo(b)fluoranthene         | 100,000 {Q}                                           | 420 U             | 360 U             | 78 J                             | 370 U             | 46 J              | 400 U             | 160 J                |
| Benzo(g,h,i)perylene         | 9,100,000                                             | 420 U             | 360 U             | 45 J                             | 370 U             | 360 U             | 400 U             | 140 J                |
| Benzo(k)fluoranthene         | 1,000,000 {Q}                                         | 420 U             | 42 J              | 44 J                             | 370 U             | 360 U             | 400 U             | 130 J                |
| bis(2-Chloroethoxy)methane   |                                                       | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| bis(2-Chloroethyl)ether      | 89,000 {I}                                            | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| bis(2-Ethylhexyl)phthalate   | 10,000,000 {C}                                        | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Butyl benzyl phthalate       | 310,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |

See generic notes pages.

TABLE 2B

## TCL SVOC ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
CTC PARKING LOT BORING PROGRAM

| Constituents (ug/kg)       | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | CTC Parking Lot   |                   |                                  |                   |                   | Visitors<br>Exit  | Visitors<br>Entrance |
|----------------------------|-------------------------------------------------------|-------------------|-------------------|----------------------------------|-------------------|-------------------|-------------------|----------------------|
|                            |                                                       | PL-1<br>8/10/2001 | PL-2<br>8/10/2001 | PL-2<br>(Duplicate)<br>8/10/2001 | PL-3<br>8/10/2001 | PL-4<br>8/10/2001 | VE-1<br>8/10/2001 | VE-2<br>8/10/2001    |
| Carbazole                  | 3,700,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Chrysene                   | 10,000,000 {Q}                                        | 420 U             | 58 J              | 93 J                             | 370 U             | 110 J             | 400 U             | 170 J                |
| Di-n-butyl phthalate       | 760,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Di-n-octyl phthalate       | 28,000,000                                            | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Dibenz(a,h)anthracene      | 10,000 {Q}                                            | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Dibenzofuran               | ID                                                    | 420 U             | 360 U             | 410 U                            | 370 U             | 43 J              | 400 U             | 370 U                |
| Diethyl phthalate          | 740,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Dimethyl phthalate         | 790,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Fluoranthene               | 180,000,000                                           | 420 U             | 60 J              | 180 J                            | 370 U             | 360 U             | 400 U             | 210 J                |
| Fluorene                   | 130,000,000                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 99 J              | 400 U             | 370 U                |
| Hexachlorobenzene          | 51,000                                                | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Hexachlorobutadiene        | 350,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Hexachlorocyclopentadiene  | 720,000 {C}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Hexachloroethane           | 1,100,000                                             | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Indeno(1,2,3-cd)pyrene     | 100,000 {Q}                                           | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Isophorone                 | 2,400,000 {C}                                         | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 110 J                |
| N-Nitroso-di-n-propylamine | 8,300                                                 | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| N-Nitrosodiphenylamine     | 12,000,000                                            | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Naphthalene                | 80,000,000                                            | 420 U             | 55 J              | 410 U                            | 370 U             | 150 J             | 400 U             | 370 U                |
| Nitrobenzene               | 490,000 {C,I}                                         | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Pentachlorophenol          | 390,000                                               | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Phenanthrene               | 8,000,000                                             | 420 U             | 110 J             | 140 J                            | 370 U             | 280 J             | 400 U             | 110 J                |
| Phenol                     | 12,000,000 {C,AD}                                     | 420 U             | 360 U             | 410 U                            | 370 U             | 360 U             | 400 U             | 370 U                |
| Pyrene                     | 110,000,000                                           | 420 U             | 54 J              | 130 J                            | 370 U             | 120 J             | 400 U             | 180 J                |

See generic notes pages.

TABLE 2C

## TCL PCB ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
CTC PARKING LOT BORING PROGRAM

| Constituents (ug/kg) | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | CTC Parking Lot   |                   |                                  |                   |                   | Visitors<br>Exit  | Visitors<br>Entrance |
|----------------------|-------------------------------------------------------|-------------------|-------------------|----------------------------------|-------------------|-------------------|-------------------|----------------------|
|                      |                                                       | PL-1<br>8/10/2001 | PL-2<br>8/10/2001 | PL-2<br>(Duplicate)<br>8/10/2001 | PL-3<br>8/10/2001 | PL-4<br>8/10/2001 | VE-1<br>8/10/2001 | VE-2<br>8/10/2001    |
| Aroclor-1016         | 20,000 {J,T}                                          | 42 U              | 36 U              | 41 U                             | 37 U              | 36 U              | 40 U              | 37 U                 |
| Aroclor-1221         | 20,000 {J,T}                                          | 42 U              | 36 U              | 41 U                             | 37 U              | 36 U              | 40 U              | 37 U                 |
| Aroclor-1232         | 20,000 {J,T}                                          | 42 U              | 36 U              | 41 U                             | 37 U              | 36 U              | 40 U              | 37 U                 |
| Aroclor-1242         | 20,000 {J,T}                                          | 42 U              | 36 U              | 41 U                             | 37 U              | 36 U              | 40 U              | 37 U                 |
| Aroclor-1248         | 20,000 {J,T}                                          | 42 U              | 36 U              | 41 U                             | 37 U              | 36 U              | 40 U              | 37 U                 |
| Aroclor-1254         | 20,000 {J,T}                                          | 42 U              | 36 U              | 41 U                             | 37 U              | 36 U              | 40 U              | 37 U                 |
| Aroclor-1260         | 20,000 {J,T}                                          | 17 J              | 36 U              | 41 U                             | 37 U              | 36 U              | 6.1               | 37 U                 |
| Total Aroclors       | 20,000 {J,T}                                          | 17 J              | ND                | ND                               | ND                | 14 J              | 40 U              | 99 JN                |
|                      |                                                       |                   |                   |                                  |                   | 14 J              | 6.1               | 99 JN                |

See generic notes pages.

TABLE 2D

**TAL INORGANIC ANALYTICAL RESULTS FOR SOIL**  
**GM SAGINAW MALLEABLE IRON PLANT PROPERTY**  
**CTC PARKING LOT BORING PROGRAM**

| Constituents (mg/kg) | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | MDEQ<br>Generic<br>Particulate<br>Inhalation<br>Criteria | CTC Parking Lot   |                   |                                  |                   |                   | Visitors<br>Exit  | Visitors<br>Entrance |
|----------------------|-------------------------------------------------------|----------------------------------------------------------|-------------------|-------------------|----------------------------------|-------------------|-------------------|-------------------|----------------------|
|                      |                                                       |                                                          | PL-1<br>8/10/2001 | PL-2<br>8/10/2001 | PL-2<br>(Duplicate)<br>8/10/2001 | PL-3<br>8/10/2001 | PL-4<br>8/10/2001 | VE-1<br>8/10/2001 | VE-2<br>8/10/2001    |
| Aluminum             | 660,000 {B,AD}                                        | ID                                                       | 26,900            | 13,600            | 14,900                           | 4,300             | 6,100             | 1,200             | 5,400                |
| Antimony             | 1,200                                                 | 5,900                                                    | 1.3 J             | 1.4 J             | 1.4 J                            | 1.8 J             | 1.2 J             | 0.50 UJ           | 1.0 J                |
| Arsenic              | 61 {B}                                                | 910 {B}                                                  | 9.7               | 2.9               | 3.0                              | 3.2               | 4.0               | 1.6               | 4.7                  |
| Barium               | 250,000                                               | 150,000                                                  | 180               | 110               | 110                              | 140               | 58                | 9.2               | 67                   |
| Beryllium            | 3,100                                                 | 590                                                      | 0.20 UJ           | 0.20 UJ           | 0.20 UJ                          | 0.20 UJ           | 0.20 UJ           | 0.20 UJ           | 0.20 UJ              |
| Cadmium              | 4,100 {B}                                             | 2,200 {B}                                                | 0.50 U            | 0.10 U            | 0.10 U                           | 0.10 U            | 0.66              | 0.10 U            | 0.51                 |
| Calcium              |                                                       |                                                          | 83,300            | 68,900            | 87,900                           | 67,700            | 13,000            | 192,050           | 16,000               |
| Chromium             | 1,000,000 {B,D,H}                                     | 240                                                      | 190               | 110               | 110                              | 200               | 40                | 4.9               | 28                   |
| Cobalt               | 18,000                                                | 5,900                                                    | 61                | 27                | 26                               | 19                | 74                | 120               | 94                   |
| Copper               | 140,000                                               | 59,000                                                   | 160 J             | 34 J              | 31 J                             | 36 J              | 62 J              | 6.7 J             | 74 J                 |
| Cyanide, Total       | 250 {P,R}                                             | 250 {R}                                                  | 0.50 U            | 0.50 U            | 1.1                              | 0.50 U            | 0.50 U            | 0.50 U            | 0.50 U               |
| Iron                 | 1,000,000 {B,D}                                       | ID                                                       | 85,400            | 28,100            | 35,200                           | 50,000            | 27,900            | 6,900             | 16,900               |
| Lead                 | 900 (draft)                                           | 44,000                                                   | 6.6               | 11                | 12                               | 7.7               | 74                | 10                | 120                  |
| Magnesium            | 1,000,000 {B,D}                                       | 2,900,000 {B}                                            | 9,100             | 5800              | 7700                             | 1800              | 700               | 3400              | 3000                 |
| Manganese            | 170,000 {B}                                           | 1,500 {B}                                                | 11,600            | 6600              | 7700                             | 10700             | 1800              | 150               | 1300                 |
| Mercury              | 1,100                                                 | ID                                                       | 0.10 U            | 0.10 U            | 0.10 U                           | 0.10 U            | 0.10 U            | 0.10 U            | 0.10 U               |
| Nickel               | 270,000 {B}                                           | 16,000 {B}                                               | 80                | 22                | 22                               | 24                | 34                | 3400              | 51                   |
| Potassium            |                                                       |                                                          | 2,600             | 1600              | 1,800                            | 2400              | 980               | 500 U             | 660                  |
| Selenium             | 18,000 {B}                                            | 59,000 {B}                                               | 2.5 U             | 2.5 U             | 2.5 U                            | 2.5 U             | 0.50 U            | 0.50 U            | 0.96                 |
| Silver               | 17,000 {B}                                            | 2,900                                                    | 2.5 U             | 2.5 U             | 2.5 U                            | 2.5 U             | 0.50 U            | 0.50 U            | 0.50 U               |
| Sodium               | 1,000,000 {D}                                         | ID                                                       | 780               | 390               | 360                              | 870               | 380               | 200               | 180                  |
| Thallium             | 240 {B}                                               | ID                                                       | 5.0 U             | 5.0 U             | 5.0 U                            | 5.0 U             | 3.6               | 1                 | 3.1                  |
| Vanadium             | 10,000                                                | ID                                                       | 46                | 26.0              | 24.8                             | 33.8              | 10.8              | 1.8               | 12                   |
| Zinc                 | 1,000,000 {B,D}                                       | ID                                                       | 16                | 19                | 20                               | 25                | 330               | 18                | 150                  |

See generic notes pages.

TABLE 2E

## TCL VOC ANALYTICAL RESULTS FOR GROUNDWATER

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/L)       | SMI-SB-01A<br>8/24/2001 | SMI-SB-03<br>8/24/2001 | SMI-SB-03<br>(Duplicate)<br>8/24/2001 |
|---------------------------|-------------------------|------------------------|---------------------------------------|
| 1,1,1-Trichloroethane     | 0.41 J                  | 1.0 U                  | 1.0 U                                 |
| 1,1,2,2-Tetrachloroethane | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 1,1,2-Trichloroethane     | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 1,1-Dichloroethane        | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 1,1-Dichloroethene        | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 1,2-Dichloroethane        | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 1,2-Dichloroethene, Total | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 1,2-Dichloropropane       | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| 2-Butanone                | 2 U                     | 2 U                    | 2 U                                   |
| 2-Hexanone                | 2 U                     | 2 U                    | 2 U                                   |
| 4-Methyl-2-pentanone      | 2 U                     | 2 U                    | 2 U                                   |
| Acetone                   | 2 U                     | 2 U                    | 2 U                                   |
| Benzene                   | 1.0 U                   | 0.9 J                  | 0.85 J                                |
| Bromodichloromethane      | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Bromoform                 | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Bromomethane              | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Carbon disulfide          | 50 U                    | 1.0 J                  | 50 U                                  |
| Carbon tetrachloride      | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Chlorobenzene             | 1.0 U                   | 0.21 J                 | 1.0 U                                 |
| Chlorodibromomethane      | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Chloroethane              | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Chloroform                | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Chloromethane             | 0.20 J                  | 1.0 U                  | 1.0 U                                 |
| cis-1,2-Dichloroethene    | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| cis-1,3-Dichloropropene   | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Ethylbenzene              | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Methylene chloride        | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Styrene                   | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Tetrachloroethene         | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Toluene                   | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| trans-1,2-Dichloroethene  | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| trans-1,3-Dichloropropene | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Trichloroethene           | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Vinyl chloride            | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Xylenes, Total            | 1.0 U                   | 1.0 U                  | 1.0 U                                 |

See generic notes pages.

TABLE 2F

## TCL SVOC ANALYTICAL RESULTS FOR GROUNDWATER

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/L)          | SMI-SB-01A<br>8/24/2001 | SMI-SB-03<br>8/24/2001 | SMI-SB-03<br>(Duplicate)<br>8/24/2001 |
|------------------------------|-------------------------|------------------------|---------------------------------------|
| 1,2,4-Trichlorobenzene       | 4 U                     | 4 U                    | 4 U                                   |
| 1,2-Dichlorobenzene          | 4 U                     | 4 U                    | 4 U                                   |
| 1,3-Dichlorobenzene          | 4 U                     | 4 U                    | 4 U                                   |
| 1,4-Dichlorobenzene          | 4 U                     | 4 U                    | 4 U                                   |
| 2,2'-oxybis(dichloropropane) | 4 U                     | 4 U                    | 4 U                                   |
| 2,4,5-Trichlorophenol        | 4 U                     | 4 U                    | 4 U                                   |
| 2,4,6-Trichlorophenol        | 4 U                     | 4 U                    | 4 U                                   |
| 2,4-Dichlorophenol           | 4 U                     | 4 U                    | 4 U                                   |
| 2,4-Dimethylphenol           | 4 U                     | 4 U                    | 4 U                                   |
| 2,4-Dinitrophenol            | 8 U                     | 8 U                    | 8 U                                   |
| 2,4-Dinitrotoluene           | 4 U                     | 4 U                    | 4 U                                   |
| 2,6-Dinitrotoluene           | 4 U                     | 4 U                    | 4 U                                   |
| 2-Chloronaphthalene          | 4 U                     | 4 U                    | 4 U                                   |
| 2-Chlorophenol               | 4 U                     | 4 U                    | 4 U                                   |
| 2-Methylnaphthalene          | 4 U                     | 4 U                    | 4 U                                   |
| 2-Methylphenol               | 4 U                     | 4 U                    | 4 U                                   |
| 2-Nitroaniline               | 4 U                     | 4 U                    | 4 U                                   |
| 2-Nitrophenol                | 4 U                     | 4 U                    | 4 U                                   |
| 3,3'-Dichlorobenzidine       | 4 U                     | 4 U                    | 4 U                                   |
| 3-Nitroaniline               | 4 U                     | 4 U                    | 4 U                                   |
| 4,6-Dinitro-2-methylphenol   | 4 U                     | 4 U                    | 4 U                                   |
| 4-Bromophenyl phenyl ether   | 4 U                     | 4 U                    | 4 U                                   |
| 4-Chloro-3-methylphenol      | 4 U                     | 4 U                    | 4 U                                   |
| 4-Chloroaniline              | 4 U                     | 4 U                    | 4 U                                   |
| 4-Chlorophenyl phenyl ether  | 4 U                     | 4 U                    | 4 U                                   |
| 4-Methylphenol               | 4 U                     | 4 U                    | 4 U                                   |
| 4-Nitroaniline               | 4 U                     | 4 U                    | 4 U                                   |
| 4-Nitrophenol                | 8 U                     | 8 U                    | 8 U                                   |
| Acenaphthene                 | 4 U                     | 4 U                    | 4 U                                   |
| Acenaphthylene               | 4 U                     | 4 U                    | 4 U                                   |
| Anthracene                   | 4 U                     | 4 U                    | 4 U                                   |
| Benzo(a)anthracene           | 4 U                     | 4 U                    | 4 U                                   |
| Benzo(a)pyrene               | 4 U                     | 4 U                    | 4 U                                   |
| Benzo(b)fluoranthene         | 4 U                     | 4 U                    | 4 U                                   |
| Benzo(g,h,i)perylene         | 4 U                     | 4 U                    | 4 U                                   |
| Benzo(k)fluoranthene         | 4 U                     | 4 U                    | 4 U                                   |
| bis(2-Chloroethoxy)methane   | 4 U                     | 4 U                    | 4 U                                   |
| bis(2-Chloroethyl)ether      | 4 U                     | 4 U                    | 4 U                                   |
| bis(2-Ethylhexyl)phthalate   | 4 U                     | 4 U                    | 4 U                                   |
| Butyl benzyl phthalate       | 4 U                     | 4 U                    | 4 U                                   |

See generic notes pages.

TABLE 2F

## TCL SVOC ANALYTICAL RESULTS FOR GROUNDWATER

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/L)        | SMI-SB-01A<br>8/24/2001 | SMI-SB-03<br>8/24/2001 | SMI-SB-03<br>(Duplicate)<br>8/24/2001 |
|----------------------------|-------------------------|------------------------|---------------------------------------|
| Carbazole                  | 4 U                     | 4 U                    | 4 U                                   |
| Chrysene                   | 4 U                     | 4 U                    | 4 U                                   |
| Di-n-butyl phthalate       | 4 U                     | 4 U                    | 4 U                                   |
| Di-n-octyl phthalate       | 4 U                     | 4 U                    | 4 U                                   |
| Dibenz(a,h)anthracene      | 4 U                     | 4 U                    | 4 U                                   |
| Dibenzofuran               | 4 U                     | 4 U                    | 4 U                                   |
| Diethyl phthalate          | 4 U                     | 4 U                    | 4 U                                   |
| Dimethyl phthalate         | 4 U                     | 4 U                    | 4 U                                   |
| Fluoranthene               | 4 U                     | 4 U                    | 4 U                                   |
| Fluorene                   | 4 U                     | 4 U                    | 1.7 J                                 |
| Hexachlorobenzene          | 4 U                     | 4 U                    | 4 U                                   |
| Hexachlorobutadiene        | 4 U                     | 4 U                    | 4 U                                   |
| Hexachlorocyclopentadiene  | 4 U                     | 4 U                    | 4 U                                   |
| Hexachloroethane           | 4 U                     | 4 U                    | 4 U                                   |
| Indeno(1,2,3-cd)pyrene     | 4 U                     | 4 U                    | 4 U                                   |
| Isophorone                 | 4 U                     | 4 U                    | 4 U                                   |
| N-Nitroso-di-n-propylamine | 4 U                     | 4 U                    | 4 U                                   |
| N-Nitrosodiphenylamine     | 4 U                     | 4 U                    | 4 U                                   |
| Naphthalene                | 4 U                     | 4 U                    | 4 U                                   |
| Nitrobenzene               | 4 U                     | 4 U                    | 4 U                                   |
| Pentachlorophenol          | 4 U                     | 4 U                    | 4 U                                   |
| Phenanthrene               | 4 U                     | 4 U                    | 4 U                                   |
| Phenol                     | 4 U                     | 4 U                    | 4 U                                   |
| Pyrene                     | 4 U                     | 4 U                    | 4 U                                   |

See generic notes pages.

TABLE 2G

## PCB ANALYTICAL DATA FOR GROUNDWATER

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/L)     | SMI-SB-01A<br>8/24/2001 | SMI-SB-03<br>8/24/2001 | SMI-SB-03<br>(Duplicate)<br>8/24/2001 |
|-------------------------|-------------------------|------------------------|---------------------------------------|
| <b>PCBs, Unfiltered</b> |                         |                        |                                       |
| Aroclor-1016            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Aroclor-1221            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Aroclor-1232            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Aroclor-1242            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Aroclor-1248            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Aroclor-1254            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Aroclor-1260            | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Total Aroclors          | ND                      | ND                     | ND                                    |
| <b>PCBs, Filtered</b>   |                         |                        |                                       |
| Aroclor-1016            | NA                      | NA                     | NA                                    |
| Aroclor-1221            | NA                      | NA                     | NA                                    |
| Aroclor-1232            | NA                      | NA                     | NA                                    |
| Aroclor-1242            | NA                      | NA                     | NA                                    |
| Aroclor-1248            | NA                      | NA                     | NA                                    |
| Aroclor-1254            | NA                      | NA                     | NA                                    |
| Aroclor-1260            | NA                      | NA                     | NA                                    |
| Total Aroclors          | NA                      | NA                     | NA                                    |

See generic notes pages.

TABLE 2H

## TAL INORGANIC ANALYTICAL RESULTS FOR GROUNDWATER

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/L)         | MDEQ Generic<br>Industrial<br>Direct Contact<br>Value | SMI-SB-01A<br>8/24/2001 | SMI-SB-03<br>8/24/2001 | SMI-SB-03<br>(Duplicate)<br>8/24/2001 |
|-----------------------------|-------------------------------------------------------|-------------------------|------------------------|---------------------------------------|
| <b>Inorganics, Filtered</b> |                                                       |                         |                        |                                       |
| Aluminum                    | 6.40E+07                                              | 100 UJ                  | 100 UJ                 | 100 UJ                                |
| Antimony                    | 68,000                                                | 5.0 U                   | 5.0 U                  | 5.0 U                                 |
| Arsenic                     | 4,300                                                 | 10.0 U                  | 5.7 B                  | 6.6 B                                 |
| Barium                      | 1.40E+07                                              | 210                     | 134                    | 123                                   |
| Beryllium                   | 2.90E+05                                              | 4.0 U                   | 4.0 U                  | 4.0 U                                 |
| Cadmium                     | 1.90E+05                                              | 1.0 U                   | 1.0 U                  | 1.0 U                                 |
| Calcium                     | none                                                  | 200,000                 | 75,600                 | 70                                    |
| Chromium                    | 4.60E+05                                              | 5.0 U                   | 5.0 U                  | 5.0 U                                 |
| Cobalt                      | 2.40E+06                                              | 10.0 U                  | 10.0 U                 | 10.0 U                                |
| Copper                      | 7.40E+06                                              | 25.0 U                  | 25.0 U                 | 25.0 U                                |
| Cyanide, Total              | 57,000                                                | 5.0 U                   | 5.0 U                  | 5.0 U                                 |
| Iron                        | 5.80E+07                                              | 6,500                   | 8,430                  | 7,730                                 |
| Lead                        | ID                                                    | 3.0 UJ                  | 3.0 UJ                 | 3.0 UJ                                |
| Magnesium                   | 1.0E+9 {D}                                            | 95,600                  | 16,100                 | 14,800                                |
| Manganese                   | 9.10E+06                                              | 802                     | 674                    | 617                                   |
| Mercury                     | 56 {S}                                                | 0.20 U                  | 0.20 U                 | 0.20 U                                |
| Nickel                      | 7.40E+07                                              | 2.4 B                   | 40.0 U                 | 40.0 U                                |
| Potassium                   | none                                                  | 54,500                  | 16,200                 | 14,900                                |
| Selenium                    | 9.70E+05                                              | 5.0 U                   | 5.0 U                  | 5.0 U                                 |
| Silver                      | 1.50E+06                                              | 5.0 U                   | 5.0 U                  | 5.0 U                                 |
| Sodium                      | none                                                  | 1,380,000               | 195,000                | 180,000                               |
| Thallium                    | 13,000                                                | 12.9 U                  | 10.0 U                 | 10.0 U                                |
| Vanadium                    | 9.70E+05                                              | 20.0 U                  | 20.0 U                 | 20.0 U                                |
| Zinc                        | 1.10E+08                                              | 20.0 U                  | 20.0 U                 | 20.0 U                                |

See generic notes pages.

TABLE 21

## TCL VOC ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/kg)      | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | SMI-SB-01A           |                      | SMI-SB-02                |                       | SMI-SB-03                |                                       |                          | SMI-SB-04                |                         |
|---------------------------|-------------------------------------------------------|----------------------|----------------------|--------------------------|-----------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|-------------------------|
|                           |                                                       | (1'-3')<br>8/23/2001 | (5'-7')<br>8/23/2001 | (1.2'-3.2')<br>8/23/2001 | (9'-11')<br>8/23/2001 | (0.7'-2.7')<br>8/23/2001 | Duplicate<br>(0.7'-2.7')<br>8/23/2001 | (4.7'-6.7')<br>8/23/2001 | (0.3'-2.3')<br>8/23/2001 | (8.3'-10')<br>8/23/2001 |
| 1,1,1-Trichloroethane     | 460,000 {C}                                           | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 1,1,2,2-Tetrachloroethane | 370,000                                               | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 1,1,2-Trichloroethane     | 920,000 {C}                                           | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| 1,1-Dichloroethane        | 890,000 {C}                                           | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 1,1-Dichloroethene        | 570,000 {C,I}                                         | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 1,2-Dichloroethane        | 640,000 {I}                                           | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 1,2-Dichloroethene, Total | 640,000 {C}                                           | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 1,2-Dichloropropane       | 550,000 {C,I}                                         | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| 2-Butanone                | 27,000,000 {C,I,AD}                                   | 5 U                  | 5 U                  | 6 U                      | 4.3 J                 | 5 U                      | 5 U                                   | 4.6 J                    | 5 U                      | 9.7                     |
| 2-Hexanone                | 2,500,000 {C}                                         | 5 U                  | 5 UJ                 | 6 U                      | 6 U                   | 5 UJ                     | 5 UJ                                  | 5 UJ                     | 5 U                      | 7 U                     |
| 4-Methyl-2-pentanone      | 2,700,000 {C,I}                                       | 5 U                  | 5 U                  | 6 U                      | 6 U                   | 5 U                      | 5 U                                   | 6 U                      | 5 U                      | 7 U                     |
| Acetone                   | 110,000,000 {I}                                       | 11 U                 | 11 U                 | 13                       | 22                    | 11 U                     | 11 U                                  | 27                       | 10 U                     | 33                      |
| Benzene                   | 400,000 {C,I}                                         | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Bromodichloromethane      | 750,000                                               | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Bromoform                 | 870,000 {C}                                           | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| Bromomethane              | 1,600,000                                             | 5 U                  | 5 U                  | 6 U                      | 6 U                   | 5 U                      | 5 U                                   | 6 U                      | 5 U                      | 7 U                     |
| Carbon disulfide          | 280,000 {C,I,R,AD}                                    | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Carbon tetrachloride      | 390,000 {C}                                           | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Chlorobenzene             | 260,000 {C,I}                                         | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| Chlorodibromomethane      | 610,000 {C}                                           | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| Chloroethane              | 950,000 {C}                                           | 5 U                  | 5 U                  | 6 U                      | 6 U                   | 5 U                      | 5 U                                   | 6 U                      | 5 U                      | 7 U                     |
| Chloroform                | 1,500,000 {C}                                         | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Chloromethane             | 1,100,000 {C,I}                                       | 5 U                  | 5 U                  | 6 U                      | 6 U                   | 5 U                      | 5 U                                   | 6 U                      | 5 U                      | 7 U                     |
| cis-1,3-Dichloropropene   |                                                       | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Ethylbenzene              | 140,000 {C,I}                                         | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 0.88 J                  |
| Methylene chloride        | 2,300,000 {C}                                         | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 5.2 U                    | 6.6 U                   |
| Styrene                   | 520,000 {C}                                           | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| Tetrachloroethene         | 88,000 {C}                                            | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| Toluene                   | 250,000 {C,I}                                         | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| trans-1,3-Dichloropropene | 620,000 {C}                                           | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 6.6 U                   |
| Trichloroethene           | 500,000 {C}                                           | 5.3 U                | 5.3 U                | 5.7 U                    | 5.9 U                 | 5.4 U                    | 5.4 U                                 | 5.7 U                    | 1.5 J                    | 6.6 U                   |
| Vinyl chloride            | 29,000                                                | 5 U                  | 5 U                  | 6 U                      | 6 U                   | 5 U                      | 5 U                                   | 6 U                      | 5 U                      | 7 U                     |
| Xylenes, Total            | 150,000 {C,I}                                         | 5.3 U                | 5.3 UJ               | 5.7 U                    | 5.9 U                 | 5.4 UJ                   | 5.4 UJ                                | 5.7 UJ                   | 5.2 U                    | 3.1 J                   |

See generic notes pages.

TABLE 2J

## TCL SVOC ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/kg)         | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | SMI-SB-01A           |                      | SMI-SB-02                |                       | SMI-SB-03                |                                       |                          | SMI-SB-04                |                         |
|------------------------------|-------------------------------------------------------|----------------------|----------------------|--------------------------|-----------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|-------------------------|
|                              |                                                       | (1'-3')<br>8/23/2001 | (5'-7')<br>8/23/2001 | (1.2'-3.2')<br>8/23/2001 | (9'-11')<br>8/23/2001 | (0.7'-2.7')<br>8/23/2001 | Duplicate<br>(0.7'-2.7')<br>8/23/2001 | (4.7'-6.7')<br>8/23/2001 | (0.3'-2.3')<br>8/23/2001 | (8.3'-10')<br>8/23/2001 |
| 1,2,4-Trichlorobenzene       | 1,100,000 {C,AD}                                      | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 1,2-Dichlorobenzene          | 210,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 1,3-Dichlorobenzene          | 170,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 1,4-Dichlorobenzene          | 2,900,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,2'-oxybis(dichloropropane) |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,4,5-Trichlorophenol        | 110,000,000                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,4,6-Trichlorophenol        | 5,000,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,4-Dichlorophenol           | 1,800,000 {C,AD}                                      | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,4-Dimethylphenol           | 56,000,000                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,4-Dinitrophenol            |                                                       | 700 U                | 710 U                | 760 U                    | 780 U                 | 720 U                    | 720 U                                 | 760 U                    | 690 U                    | 870 U                   |
| 2,4-Dinitrotoluene           | 340,000                                               | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2,6-Dinitrotoluene           |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2-Chloronaphthalene          | 280,000,000                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2-Chlorophenol               | 6,900,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2-Methylnaphthalene          | 40,000,000                                            | 57 J                 | 150 J                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2-Methylphenol               | 56,000,000 {J}                                        | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2-Nitroaniline               |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 2-Nitrophenol                | 3,100,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 3,3'-Dichlorobenzidine       | 47,000                                                | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 3-Nitroaniline               |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4,6-Dinitro-2-methylphenol   | 390,000                                               | 700 U                | 710 U                | 760 U                    | 780 U                 | 720 U                    | 720 U                                 | 760 U                    | 690 U                    | 870 U                   |
| 4-Bromophenyl phenyl ether   |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4-Chloro-3-methylphenol      | 22,000,000                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4-Chloroaniline              |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4-Chlorophenyl phenyl ether  |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4-Methylphenol               | 56,000,000 {J}                                        | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4-Nitroaniline               |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| 4-Nitrophenol                |                                                       | 700 U                | 710 U                | 760 U                    | 780 U                 | 720 U                    | 720 U                                 | 760 U                    | 690 U                    | 870 U                   |
| Acenaphthene                 | 200,000,000                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Acenaphthylene               | 8,000,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Anthracene                   | 1,000,000,000 {D}                                     | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Benzo(a)anthracene           | 100,000 {Q}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Benzo(a)pyrene               | 10,000 {Q}                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 86 J                     | 350 U                    | 440 U                   |
| Benzo(b)fluoranthene         | 100,000 {Q}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 72 J                     | 350 U                    | 440 U                   |
| Benzo(g,h,i)perylene         | 9,100,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 86 J                     | 350 U                    | 440 U                   |
| Benzo(k)fluoranthene         | 1,000,000 {Q}                                         | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 66 J                     | 350 U                    | 440 U                   |
| bis(2-Chloroethoxy)methane   |                                                       | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| bis(2-Chloroethyl)ether      | 89,000 {I}                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| bis(2-Ethylhexyl)phthalate   | 10,000,000 {C}                                        | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Butyl benzyl phthalate       | 310,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |

See generic notes pages.

TABLE 2J

TCL SVOC ANALYTICAL RESULTS FOR SOIL  
GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/kg)       | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | SMI-SB-01A           |                      | SMI-SB-02                |                       | SMI-SB-03                |                                       |                          | SMI-SB-04                |                         |
|----------------------------|-------------------------------------------------------|----------------------|----------------------|--------------------------|-----------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|-------------------------|
|                            |                                                       | (1'-3')<br>8/23/2001 | (5'-7')<br>8/23/2001 | (1.2'-3.2')<br>8/23/2001 | (9'-11')<br>8/23/2001 | (0.7'-2.7')<br>8/23/2001 | Duplicate<br>(0.7'-2.7')<br>8/23/2001 | (4.7'-6.7')<br>8/23/2001 | (0.3'-2.3')<br>8/23/2001 | (8.3'-10')<br>8/23/2001 |
| Carbazole                  | 3,700,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Chrysene                   | 10,000,000 {Q}                                        | 350 U                | 350 U                | 380 U                    | 390 U                 | 62 J                     | 72 J                                  | 160 J                    | 350 U                    | 440 U                   |
| Di-n-butyl phthalate       | 760,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Di-n-octyl phthalate       | 28,000,000                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Dibenz(a,h)anthracene      | 10,000 {Q}                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Dibenzofuran               | ID                                                    | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Diethyl phthalate          | 740,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Dimethyl phthalate         | 790,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Fluoranthene               | 180,000,000                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 72 J                     | 85 J                                  | 180 J                    | 350 U                    | 440 U                   |
| Fluorene                   | 130,000,000                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Hexachlorobenzene          | 51,000                                                | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Hexachlorobutadiene        | 350,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Hexachlorocyclopentadiene  | 720,000 {C}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Hexachloroethane           | 1,100,000                                             | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Indeno(1,2,3-cd)pyrene     | 100,000 {Q}                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Isophorone                 | 2,400,000 {C}                                         | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| N-Nitroso-di-n-propylamine | 8,300                                                 | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| N-Nitrosodiphenylamine     | 12,000,000                                            | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Naphthalene                | 80,000,000                                            | 45 J                 | 110 J                | 380 U                    | 390 U                 | 67 J                     | 82 J                                  | 380 U                    | 350 U                    | 440 U                   |
| Nitrobenzene               | 490,000 {C,I}                                         | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Pentachlorophenol          | 390,000                                               | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Phenanthrene               | 8,000,000                                             | 50 J                 | 95 J                 | 380 U                    | 390 U                 | 100 J                    | 360 U                                 | 130 J                    | 350 U                    | 440 U                   |
| Phenol                     | 12,000,000 {C,AD}                                     | 350 U                | 350 U                | 380 U                    | 390 U                 | 360 U                    | 360 U                                 | 380 U                    | 350 U                    | 440 U                   |
| Pyrene                     | 110,000,000                                           | 350 U                | 350 U                | 380 U                    | 390 U                 | 69 J                     | 73 J                                  | 200 J                    | 350 U                    | 440 U                   |

See generic notes pages.

TABLE 2K

## TCL PCB ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (ug/kg) | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | SMI-SB-01A           |                      | SMI-SB-02                |                       | SMI-SB-03                |                                       |                          | SMI-SB-04                |                         |
|----------------------|-------------------------------------------------------|----------------------|----------------------|--------------------------|-----------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|-------------------------|
|                      |                                                       | (1'-3')<br>8/23/2001 | (5'-7')<br>8/23/2001 | (1.2'-3.2')<br>8/23/2001 | (9'-11')<br>8/23/2001 | (0.7'-2.7')<br>8/23/2001 | Duplicate<br>(0.7'-2.7')<br>8/23/2001 | (4.7'-6.7')<br>8/23/2001 | (0.3'-2.3')<br>8/23/2001 | (8.3'-10')<br>8/23/2001 |
| Aroclor-1016         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 39 U                  | 36 U                     | 36 U                                  | 37 U                     | 34 U                     | 44 U                    |
| Aroclor-1221         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 39 U                  | 36 U                     | 36 U                                  | 37 U                     | 34 U                     | 44 U                    |
| Aroclor-1232         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 39 U                  | 36 U                     | 36 U                                  | 37 U                     | 34 U                     | 44 U                    |
| Aroclor-1242         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 39 U                  | 36 U                     | 36 U                                  | 37 U                     | 34 U                     | 44 U                    |
| Aroclor-1248         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 97                    | 36 U                     | 36 U                                  | 37 U                     | 34 U                     | 44 U                    |
| Aroclor-1254         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 39 U                  | 77                       | 93                                    | 37 U                     | 34 U                     | 44 U                    |
| Aroclor-1260         | 20,000 {J,T}                                          | 35 U                 | 35 U                 | 38 U                     | 39 U                  | 36 U                     | 36 U                                  | 37 U                     | 34 U                     | 44 U                    |
| Total Aroclors       | 20,000 {J,T}                                          | ND                   | ND                   | ND                       | 97                    | 77                       | 93                                    | ND                       | ND                       | ND                      |

See generic notes pages.

TABLE 2L

## TAL INORGANIC ANALYTICAL RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (mg/kg) | MDEQ<br>Generic<br>Industrial Direct<br>Contact Value | SMI-SB-01A           |                      | SMI-SB-02                |                       | SMI-SB-03                |                                       |                          | SMI-SB-04                |                         |
|----------------------|-------------------------------------------------------|----------------------|----------------------|--------------------------|-----------------------|--------------------------|---------------------------------------|--------------------------|--------------------------|-------------------------|
|                      |                                                       | (1'-3')<br>8/23/2001 | (5'-7')<br>8/23/2001 | (1.2'-3.2')<br>8/23/2001 | (9'-11')<br>8/23/2001 | (0.7'-2.7')<br>8/23/2001 | Duplicate<br>(0.7'-2.7')<br>8/23/2001 | (4.7'-6.7')<br>8/23/2001 | (0.3'-2.3')<br>8/23/2001 | (8.3'-10')<br>8/23/2001 |
| Aluminum             | 660,000 {B,AD}                                        | 2,490                | 2,120                | 8,270                    | 9,060                 | 5,480                    | 4,720                                 | 4,650                    | 221                      | 10,200                  |
| Antimony             | 1,200                                                 | 6.4 U                | 6.4 U                | 6.9 U                    | 7.0 U                 | 0.89 B                   | 0.98 B                                | 1.4 B                    | 6.3 U                    | 7.9 U                   |
| Arsenic              | 61 {B}                                                | 1.6                  | 2.3                  | 3.4                      | 3.4                   | 4.8                      | 5.5                                   | 9.3                      | 0.72 B                   | 6.3                     |
| Barium               | 250,000                                               | 14.0 B               | 10.2 B               | 50                       | 43.1                  | 46.7                     | 59.1                                  | 40.7                     | 2.8 B                    | 96.1                    |
| Beryllium            | 3,100                                                 | 0.53 U               | 0.53 U               | 0.57 U                   | 0.59 U                | 0.54 U                   | 0.54 U                                | 0.57 U                   | 0.52 U                   | 0.66 U                  |
| Cadmium              | 4,100 {B}                                             | 0.051 B              | 0.063 B              | 0.12 B                   | 0.14 B                | 0.51 B                   | 0.42 B                                | 1.1 U                    | 0.52 U                   | 0.26 B                  |
| Calcium              |                                                       | 10,800               | 4,160                | 74,800                   | 61,800                | 13,900                   | 14,900                                | 12,600                   | 162,000                  | 27,900                  |
| Chromium             | 1,000,000 {B,D,H}                                     | 7.1                  | 43                   | 16.6                     | 16.0                  | 23.8                     | 24.3                                  | 29.8                     | 1.7                      | 17.1                    |
| Cobalt               | 18,000                                                | 1.4 B                | 2.0 B                | 6.2                      | 6.2                   | 3.9 B                    | 3.8 B                                 | 7.2                      | 5.2 U                    | 7.8                     |
| Copper               | 140,000                                               | 5.8                  | 15.8                 | 13.2                     | 10.4                  | 116.0                    | 57.2                                  | 27.7                     | 1.7 B                    | 12.4                    |
| Cyanide, Total       | 250 {P,R}                                             | 0.53 U               | 0.53 U               | 0.57 U                   | 0.59 U                | 0.54 U                   | 0.54 U                                | 0.57 U                   | 0.52 U                   | 0.29 B                  |
| Iron                 | 1,000,000 {B,D}                                       | 6,810                | 19,900               | 13,200                   | 12,500                | 22,300                   | 23,500                                | 93,000                   | 1,750                    | 21,200                  |
| Lead                 | 900 (draft)                                           | 4.0                  | 3.1                  | 5.5                      | 5.7                   | 29.0                     | 33.5                                  | 14.7                     | 4.5                      | 8.9                     |
| Magnesium            | 1,000,000 {B,D}                                       | 2,080                | 646                  | 24,100                   | 19,200                | 1,070                    | 1,110                                 | 4,290                    | 5,020                    | 14,300                  |
| Manganese            | 170,000 {B}                                           | 289                  | 192                  | 234                      | 310                   | 1,090                    | 1,170                                 | 1,020                    | 125                      | 1480                    |
| Mercury              | 1,100                                                 | 0.11 U               | 0.11 U               | 0.010 B                  | 0.011 B               | 0.051 B                  | 0.051 B                               | 0.028 B                  | 0.10 U                   | 0.043 B                 |
| Nickel               | 270,000 {B}                                           | 5.4                  | 38                   | 16.8                     | 15.8                  | 15.0                     | 13.3                                  | 17.9                     | 3.0 B                    | 17.3                    |
| Potassium            |                                                       | 488 B                | 219 B                | 2,020                    | 1,610                 | 979                      | 851                                   | 717                      | 89.9 B                   | 886                     |
| Selenium             | 18,000 {B}                                            | 0.53 U               | 0.70                 | 0.57 U                   | 0.59 U                | 0.91                     | 0.66                                  | 2.2                      | 0.52 U                   | 0.60 B                  |
| Silver               | 17,000 {B}                                            | 1.1 U                | 1.1 U                | 1.1 U                    | 1.2 U                 | 1.1 U                    | 1.1 U                                 | 1.1 U                    | 1.0 U                    | 1.3 U                   |
| Sodium               | 1,000,000 {D}                                         | 543                  | 315 B                | 629                      | 273 B                 | 268 B                    | 234 B                                 | 199 B                    | 283 B                    | 174 B                   |
| Thallium             | 240 {B}                                               | 0.75 B               | 1.1 U                | 1.9 U                    | 1.5 U                 | 1.1 U                    | 1.1 U                                 | 2.3 U                    | 1.0 U                    | 2.2 U                   |
| Vanadium             | 10,000                                                | 5.2 B                | 5.2 B                | 20.4                     | 19.0                  | 11.9                     | 11.3                                  | 23.6                     | 1.8 B                    | 21.1                    |
| Zinc                 | 1,000,000 {B,D}                                       | 16.1                 | 21.0                 | 28.9                     | 26.9                  | 62.4                     | 82.5                                  | 30.2                     | 5.4                      | 48.8                    |

See generic notes pages.

TABLE 2M

## TCLP VOCs, METALS, AND WASTE CHARACTERIZATION RESULTS FOR SOIL

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
FIRE SUPPRESSION SYSTEM BORING PROGRAM

| Constituents (mg/L)               | Composite Waste 01 <sup>1</sup><br>8/23/2001 | Composite Waste 02 <sup>2</sup><br>8/23/2001 | Between SMI and Plant 2                                             |                                                               | Area of Oil House                                                  |                                                                   |
|-----------------------------------|----------------------------------------------|----------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------|
|                                   |                                              |                                              | Composite of SMI-SB-01A(1-3') and SMI-SB-02 (1.2-3.2')<br>8/23/2001 | Composite SMI-SB-01A(5-7') and SMI-SB-02 (9-11')<br>8/23/2001 | Composite SMI-SB-03(0.7-2.7) and SMI-SB-04 (0.3-2.3')<br>8/23/2001 | Composite SMI-SB-03(4.7-6.7) and SMI-SB-04 (8.3-10')<br>8/23/2001 |
| TCLP Inorganics                   |                                              |                                              |                                                                     |                                                               |                                                                    |                                                                   |
| Silver                            | 0.50 U                                       | 0.50 U                                       | 0.50 U                                                              | 0.50 U                                                        | 0.50 U                                                             | 0.50 U                                                            |
| Arsenic                           | 0.50 U                                       | 0.50 U                                       | 0.50 U                                                              | 0.50 U                                                        | 0.50 U                                                             | 0.50 U                                                            |
| Barium                            | 10.0 U                                       | 10.0 U                                       | 10.0 U                                                              | 10.0 U                                                        | 10.0 U                                                             | 10.0 U                                                            |
| Cadmium                           | 0.10 U                                       | 0.10 U                                       | 0.10 U                                                              | 0.10 U                                                        | 0.10 U                                                             | 0.10 U                                                            |
| Chromium                          | 0.50 U                                       | 0.50 U                                       | 0.50 U                                                              | 0.50 U                                                        | 0.50 U                                                             | 0.50 U                                                            |
| Lead                              | 0.50 U                                       | 0.50 U                                       | 0.50 U                                                              | 0.50 U                                                        | 0.50 U                                                             | 0.50 U                                                            |
| Selenium                          | 0.25 U                                       | 0.25 U                                       | 0.25 U                                                              | 0.25 U                                                        | 0.25 U                                                             | 0.25 U                                                            |
| TCLP VOCs                         |                                              |                                              |                                                                     |                                                               |                                                                    |                                                                   |
| Benzene                           | 0.025 U                                      | 0.025 U                                      | 0.025 U                                                             | 0.025 U                                                       | 0.025 U                                                            | 0.025 U                                                           |
| Carbon tetrachloride              | 0.025 U                                      | 0.025 U                                      | 0.025 U                                                             | 0.025 U                                                       | 0.025 U                                                            | 0.025 U                                                           |
| Chlorobenzene                     | 0.025 U                                      | 0.025 U                                      | 0.025 U                                                             | 0.025 U                                                       | 0.025 U                                                            | 0.025 U                                                           |
| 1,4-Dichlorobenzene               | 0.050 U                                      | 0.050 U                                      | NA                                                                  | NA                                                            | NA                                                                 | 0.025 U                                                           |
| Chloroform                        | 0.025 U                                      | 0.025 U                                      | 0.025 U                                                             | 0.025 U                                                       | 0.025 U                                                            | NA                                                                |
| 1,2-Dichloroethane                | 0.025 U                                      | 0.025 U                                      | 0.025 U                                                             | 0.025 U                                                       | 0.025 U                                                            | 0.025 U                                                           |
| 1,1-Dichloroethylene              | 0.070 U                                      | 0.070 U                                      | 0.070 U                                                             | 0.070 U                                                       | 0.070 U                                                            | 0.025 U                                                           |
| Hexachlorobutadiene               | 0.050 U                                      | 0.050 U                                      | NA                                                                  | NA                                                            | NA                                                                 | 0.070 U                                                           |
| Methyl ethyl ketone               | 0.050U                                       | 0.050U                                       | 0.050U                                                              | 0.050U                                                        | 0.050U                                                             | NA                                                                |
| Tetrachloroethylene               | 0.070 U                                      | 0.070 U                                      | 0.070 U                                                             | 0.070 U                                                       | 0.070 U                                                            | 0.050U                                                            |
| Trichloroethylene                 | 0.050 U                                      | 0.050 U                                      | 0.050 U                                                             | 0.050 U                                                       | 0.070 U                                                            | 0.070 U                                                           |
| Vinyl chloride                    | 0.050 U                                      | 0.050 U                                      | 0.050 U                                                             | 0.050 U                                                       | 0.050 U                                                            | 0.050 U                                                           |
| Waste Characterization Parameters |                                              |                                              |                                                                     |                                                               |                                                                    |                                                                   |
| Reactive Cyanide                  | 200 U                                        | 200 U                                        | 200 U                                                               | 200 U                                                         | 200 U                                                              | 200 U                                                             |
| Ignitability                      | >180                                         | >180                                         | >180                                                                | >180                                                          | >180                                                               | >180                                                              |
| pH                                | 8.3                                          | 8.3                                          | NA                                                                  | 8.2                                                           | 10.1                                                               | 7.5                                                               |
| Reactive Sulfide                  | 200 U                                        | 200 U                                        | 200 U                                                               | 200 U                                                         | 200 U                                                              | 200 U                                                             |

**Notes:**

Soil borings SMI-SB-01A and SMI-SB-02 were located between the GM SMI and Delphi Plant 2 buildings.

Soil borings SMI-SB-03 and SMI-SB-04 were located in the area of the oil house, east of the plant building.

U - The compound/constituent was not detected above the reported sample quantitation limit shown.

NA - not available.

<sup>1</sup>Composite of soil from SMI-SB-01A (1'-3'), SMI-SB-02 (1.2'-3.2'), SMI-SB-03 (0.7-2.7') and SMI-SB-04 (0.3-2.3').

<sup>2</sup>Composite of soil from SMI-SB-01A (5'-7'), SMI-SB-02 (9'-11'), SMI-SB-03 (4.7-6.7') and SMI-SB-04 (8.3-10').

## TABLES 2A THROUGH 2M GENERIC NOTES

### GM SAGINAW MALLEABLE IRON PLANT PROPERTY CTC PARKING LOT AND FIRE SUPPRESSION SYSTEM BORING PROGRAMS

#### General Notes:

Concentrations are reported in micrograms per liter (ug/L), micrograms per kilogram (ug/kg), or milligrams per kilogram (mg/kg), as noted.  
Detections are shown in bold.  
Criteria exceedences are shaded.  
NA = not available  
Generic MDEQ Criteria Values dated June 2000 are shown.

#### Data Qualifiers:

B = (Organic) The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.  
(Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.  
D = Concentration is based on a diluted sample analysis.  
E = The compound was quantitated above the calibration range.  
G = Elevated reporting limit due to matrix interference.  
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.  
U = The compound/constituent was analyzed for but not detected. The associated value is the compound/constituent quantitation limit.  
UJ = The compound/constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.  
ND = Not detected.  
JN = There is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.  
R = The data were rejected.

#### MDEQ Criteria Qualifiers:

ID = *Inadequate data* to develop criterion.  
IP = Development of generic GSI value *in process*. This notation is used for those hazardous substances on the Rule 57 Water Quality Values table where the NLS (no literature search) notation is indicated for one or more of the endpoints required for development of a generic GSI. Additional work needed to address these endpoints may either be underway, or not yet initiated by the Surface Water Quality Division.  
NA = Criterion or value is *not available* or, as is the case for Csat, *not applicable*.  
NLL = Hazardous substance is *not likely to leach* under most soil conditions.  
NLV = Hazardous substance is *not likely to volatilize* under most conditions.  
{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.  
{B} = Background, as defined in Rule 299.5701(c), may be substituted if higher than the calculated cleanup criteria. Background levels may not exceed criteria for all inorganic compounds.  
{C} = Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat) 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 contaminant is not present. Consult the Generic Soil Saturation Concentrations: Technical Support Document (August 31, 1998) for further guidance on development of site-specific Csat values. Risk-based criteria are available by contacting an ERD toxicologist.

TABLES 2A THROUGH 2M GENERIC NOTES

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
CTC PARKING LOT AND FIRE SUPPRESSION SYSTEM BORING PROGRAMS

**MDEQ Criteria Qualifiers (Cont'd.):**

- {D} = Calculated criterion exceeds 100%, hence it is reduced to 100% (i.e., 1.0E+9 ppb). Evaluation of free phase contaminant, environmental impacts, adverse aesthetics and acute or local toxicity is required.
- {E} = Criterion is the aesthetic drinking water value, as required by Sec. 20120(1)(5). A Notice of Aesthetic Impact may be employed as an institutional control mechanism where groundwater concentrations exceed the aesthetic DWC, but do not exceed the applicable health-based DWC. Health-based DWC are provided in the table below.

| Hazardous Substance            | CAS #    | Residential Health-Based DWC | Industrial-Commercial Health-Based DWC |
|--------------------------------|----------|------------------------------|----------------------------------------|
| Aluminum                       | 7429905  | 300                          | 4,100                                  |
| Chloride                       | 16887006 | ID                           | ID                                     |
| 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                                    |
| Sulfate                        | 14808798 | ID                           | ID                                     |
| 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 (i.e., phytotoxicity).

{G} = GSI criterion is pH or water hardness dependent. The Final Chronic Value (FCV) for the protection of aquatic life must be calculated based on the pH or hardness of the receiving surface water. Where water hardness exceeds 400 mg CaCO<sub>3</sub>/L, use 400 mg CaCO<sub>3</sub>/L for the FCV calculation. The FCV formula provides values in units of ug/L (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 X GSI and 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 |
|--------------------------------|------------------------------|----------------------------|---------|-----------|
| Barium <sup>x</sup>            | EXP(1.0629*(LnH)+1.1869)     | NA                         | NA      | 1.6E+5    |
| Beryllium                      | EXP(2.5279*(LnH)-10.7689)    | NA                         | NA      | 1,200     |
| Cadmium <sup>x</sup>           | (EXP(0.7852*(LnH)-2.715))*CF | 1.101672-((LnH)*0.04184)   | NA      | 130       |
| Chromium (III) <sup>x</sup>    | (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 <sup>x</sup>              | (EXP(1.273*(LnH)-3.296))*CF  | 1.46203-((LnH)*0.14571)    | NA      | 190       |
| Manganese                      | EXP(0.8784*(LnH)+2.226)      | NA                         | NA      | 59,000    |
| Nickel                         | (EXP(0.846*(LnH)+0.0584))*CF | 0.997                      | NA      | 2.1E+5    |
| Pentachlorophenol <sup>x</sup> | EXP(1.005*(pH)-5.134)        | NA                         | NA      | 2.8       |
| Zinc                           | (EXP(0.8473*(LnH)+0.884))*CF | 0.986                      | NA      | 22,000    |

Where,

EXP(x) = The base of the natural logarithm raised to power x (e<sup>x</sup>).

LnH = The natural logarithm of water hardness in mg CaCO<sub>3</sub>/L.

SS = Total suspended solids in mg/L.

\* = The multiplication symbol.

<sup>x</sup> = The GSI criterion developed here may not be protective for surface water that is used as a drinking water source. Refer to footnote {X} for further guidance.

A spreadsheet that may be used to calculate GSI and GSI PC for {G} footnoted hazardous substances is available at <http://www.deq.state.mi.us/erd>

{H} = Valence-specific chromium data (Cr III and Cr VI) must 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 DWC of 100 ug/l. If analytical data are provided for "total" chromium only, then values for Cr VI must be applied as the cleanup criteria. Cr III 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.

# TABLES 2A THROUGH 2M GENERIC NOTES

## GM SAGINAW MALLEABLE IRON PLANT PROPERTY CTC PARKING LOT AND FIRE SUPPRESSION SYSTEM BORING PROGRAMS

### MDEQ Criteria Qualifiers (Cont'd.):

- {I} = Hazardous substance may exhibit the characteristic of ignitability as defined in 40 CFR 261.21.
- {J} = Hazardous substance may be present in several isomer forms. Isomer-specific concentrations must be added together for comparison to criteria.
- {K} = Hazardous substance may be flammable and/or explosive.
- {L} = Reserved
- {M} = Calculated criterion is below the analytical Target Detection Limit (TDL), therefore, the criterion defaults to the TDL.
- {N} = The concentrations of all potential sources of nitrate-nitrogen (e.g., ammonia-N, nitrite-N, nitrate-N) in groundwater used as a source of drinking water must not, when added together, exceed the nitrate DWPC of 10,000 ug/L. Where leaching to groundwater is a relevant pathway, soil concentrations of all potential sources of nitrate-nitrogen must not, when added together, exceed the nitrate DWPC of 2.0E+5 ug/Kg.
- {O} = All polychlorinated and polybrominated dibenzodioxins and dibenzofurans are considered as one hazardous substance. The concentration of all isomers present at a facility, expressed as an equivalent concentration of 2,3,7,8-tetrachlorodibenzo-p-dioxin based upon their relative potency, must be added together and compared to the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin. The generic criteria revisions have not been incorporated into the criteria for 2,3,7,8-tetrachlorodibenzo-p-dioxin, therefore the criteria listed is the same as shown in the May 28, 1999 criteria tables.
- {P} = Amenable or Method OIA-1677 analysis is used to quantify cyanide concentrations for compliance with all groundwater criteria. Total, amenable, or Method OIA-1677 analysis may be used to quantify cyanide concentrations for compliance with soil criteria. Industrial/commercial DCC may not be protective of the potential for release of hydrogen cyanide (HCN) gas. Additional land use restrictions may be necessary to protect for the acute inhalation concerns associated with HCN.
- {Q} = Criteria for carcinogenic polycyclic aromatic hydrocarbons (PAHs) were developed using "relative potential potencies" (RPPs) to benzo(a)pyrene.
- {R} = Hazardous substance may exhibit the characteristic of reactivity as defined in 40 CFR 261.23.
- {S} = Criterion defaults to the chemical-specific water solubility limit.
- {T} = Refer to the Toxic Substances Control Act (TSCA), 40 CFR 761, Subparts D and G, as amended, to determine the applicability of TSCA cleanup standards. Alternatives to compliance with the standards listed below are possible under Subpart D. New releases may be subject to the standards identified in Subpart G. Use Part 201 soil direct contact criteria in the table below where TSCA standards are not applicable.

| Land Use Category          | TSCA, Subpart D                       | Part 201   |
|----------------------------|---------------------------------------|------------|
| Residential & Commercial I | 1,000 ppb, or<br>10,000 ppb if capped | 4,000 ppb  |
| Industrial & Commercial II | 1,000 ppb, or<br>10,000 ppb if capped | 20,000 ppb |
| Commercial III             | 1,000 ppb, or<br>10,000 ppb if capped | 62,000 ppb |
| Commercial IV              | 1,000 ppb, or<br>10,000 ppb if capped | 32,000 ppb |

- {U} = Hazardous substance may exhibit the characteristic of corrosivity as defined in 40 CFR 261.22.
- {V} = Criterion is the aesthetic drinking water value (secondary maximum contaminant level), as required by Sec. 20120(a)(5). Higher concentrations (up to 200 ug/L) may be acceptable on a case-by-case basis.
- {W} = Concentrations of trihalomethanes in groundwater must be added together to determine compliance with the State of Michigan Drinking Water Standard of 100 ug/L. Concentrations of trihalomethanes in soil must be added together to determine compliance with the DWPC of 2,000 ug/kg.
- {X} = The GSI criterion shown is not protective for surface water that is used as a drinking water source. For groundwater discharges to the Great Lakes and their connecting waters or discharges in close proximity to water supply intake(s) in inland surface waters, the generic GSI criterion is the Surface Water Human Drinking Water Value (HDV) listed in the table below except for those HDV indicted with an asterisk. For HDV with an asterisk, the generic GSI criterion is the lesser of the HDV, the WV and the calculated FCV (see formulas in footnote {G}). Soil protection criteria based on the HDV are listed below except for those values with an asterisk. Soil GSI protection criteria for compounds with an asterisk are the greater of the 20 X GSI and GSI soil-water partition values using the GSI criteria developed with the procedure described in this footnote.

| Hazardous Substance | Chemical Abstract Service Number | Surface Water Human Drinking Water Values (HDV) (ug/L) | Soil GSI Protection Criteria for HDV (ug/Kg) |
|---------------------|----------------------------------|--------------------------------------------------------|----------------------------------------------|
| Acrylonitrile       | 107131                           | 0.87                                                   | 17                                           |
| Alachlor            | 15972608                         | 3.5                                                    | 70                                           |
| Arsenic             | 7440382                          | 50                                                     | 16,000                                       |

TABLES 2A THROUGH 2M GENERIC NOTES

GM SAGINAW MALLEABLE IRON PLANT PROPERTY  
CTC PARKING LOT AND FIRE SUPPRESSION SYSTEM BORING PROGRAMS

| Hazardous Substance            | Chemical Abstract Service Number | Surface Water Human Drinking Water Values (HDV) (ug/L) | Soil GSI Protection Criteria for HDV (ug/Kg) |
|--------------------------------|----------------------------------|--------------------------------------------------------|----------------------------------------------|
| Atrazine                       | 1912249                          | 4.3                                                    | 86                                           |
| Barium                         | 7440393                          | 1,900*                                                 | *                                            |
| Benzene                        | 71432                            | 12                                                     | 240                                          |
| Butyl benzyl phthalate         | 85687                            | 6.9                                                    | 1,300                                        |
| Cadmium                        | 7440439                          | 2.5*                                                   | *                                            |
| Carbon tetrachloride           | 56235                            | 5.6                                                    | 110                                          |
| Chloride                       | 16887006                         | 50,000                                                 | 1.0E+6                                       |
| Chloroform                     | 67663                            | 77                                                     | 1,500                                        |
| Chromium (III)                 | 16065831                         | 120*                                                   | *                                            |
| Cyanazine                      | 21725462                         | 10 {M}                                                 | 200                                          |
| 3,3'-Dichlorobenzidine         | 91941                            | 0.3 {M}                                                | 500                                          |
| 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 glycol                | 107211                           | 56,000                                                 | 1.1E+6                                       |
| Hexachloroethane               | 67721                            | 5.3                                                    | 1,500                                        |
| Isophorone                     | 78591                            | 310                                                    | 6,200                                        |
| Lead                           | 7439921                          | 14*                                                    | *                                            |
| Methyl-tert-butyl ether (MTBE) | 1634044                          | 120                                                    | 2,400                                        |
| Methylene chloride             | 75092                            | 47                                                     | 940                                          |
| Molybdenum                     | 7439987                          | 120                                                    | 2,400                                        |
| Nitrobenzene                   | 98953                            | 4.7                                                    | 94                                           |
| Pentachlorophenol              | 87865                            | 1.8*                                                   | *                                            |
| 1,2,4,5-Tetrachlorobenzene     | 95943                            | 2.8                                                    | 3,300                                        |
| 1,1,2,2-Tetrachloroethane      | 79345                            | 3.2                                                    | 64                                           |
| Tetrachloroethylene            | 127184                           | 11                                                     | 220                                          |
| Tetrahydrofuran                | 109999                           | 350                                                    | 7,000                                        |
| Thallium                       | 7440280                          | 1.2                                                    | 910                                          |
| 1,1,2-Trichloroethane          | 79005                            | 12                                                     | 240                                          |
| Trichloroethylene              | 79016                            | 29                                                     | 580                                          |

{Y} = Source size modifiers for Soil Inhalation Criteria (SIC) for Ambient Air. Consult the Technical Support Document (TSD) for the SIC if further guidance is needed.

| Source Size<br>sq. feet or acres | Modifier |
|----------------------------------|----------|
| 400 sq feet                      | 3.17     |
| 1000 sq feet                     | 2.2      |
| 2000 sq feet                     | 1.76     |
| 1/2 acre                         | 1        |
| 1 acre                           | 0.87     |
| 5 acre                           | 0.66     |
| 10 acre                          | 0.6      |
| 32 acre                          | 0.5      |
| 100 acre                         | 0.43     |

{Z} = The current TDL for mercury is 0.2 ppb; however, a TDL of 5.0E-4 using USEPA Method 1631, will be required after September 30, 2000.

{AA} = Filtered groundwater samples must be collected for appropriate comparison to the GCC, since these hazardous substances are likely to be absorbed to particulates rather than dissolved in water.

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

{AC} = The GSI criteria for unionized ammonia are 29 ug/L and 53 ug/L for coldwater and warmwater streams, respectively. The unionized ammonia concentration for comparison to the GSI is calculated from the measured total ammonia concentration based on pH and temperature for the receiving surface water and the discharge plume. The soil GSI PC are 580 ug/Kg and 1,100 ug/Kg for coldwater and warmwater streams, respectively.

TABLES 2A THROUGH 2M GENERIC NOTES

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CTC PARKING LOT AND FIRE SUPPRESSION SYSTEM BORING PROGRAMS

- {AD} = Hazardous substance causes developmental effects. Residential and Commercial I DCC are protective of both prenatal and postnatal exposure. Industrial and Commercial II, III and IV DCC are protective for an adult pregnant receptor.
- {AE} = The following are applicable generic GSI criteria as allowed for under Sec. 20120a(15).

| Hazardous Substance                                                      | GSI (ug/L)        | Notes                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Phosphorous                                                              | 1,000             | If the discharge is to an inland lake or a surface water with a designated phosphorus waste load allocation, consult the ERD Field Operation Section for further guidance.                                                                                  |
| Total dissolved solids (TDS)                                             | 5.00E+05          | If TDS data are not available, the TDS criterion may be used as a screening level for the sum of the concentrations of the following substances: Calcium, Chlorides, Iron, Magnesium, Potassium, Sodium, Sulfate.                                           |
| Dissolved Oxygen (DO):<br>Cold receiving waters<br>Warm receiving waters | >=7000<br>>=5,000 | DO criteria are not applicable if groundwater Carmonaceous Biochemical Oxygen Demand (CBOD) is less than 10,000 ug/L and groundwater ammonia concentration is less than 2,000 ug/L. Consult the ERD Field Operation Section for further guidance if needed. |

- { }\* = Site-specific background value has been used as the constituent criteria value.

**TABLE 3**  
**GROUNDWATER AND LNAPL MEASUREMENT SUMMARY**

**GENERAL MOTORS CORPORATION**  
**SAGINAW MALLEABLE IRON PLANT**  
**SAGINAW, MICHIGAN**

| Date         | MW-147WT<br>reference elevation = 592.07 |                              |                                |                                         | MW-157WT<br>reference elevation = 591.72 |                              |                                |                                         | TP-2<br>reference elevation not available |                              |                                |                                         | RW-1<br>reference elevation = 592.18 |                              |                                |                                         |
|--------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|-------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|--------------------------------------|------------------------------|--------------------------------|-----------------------------------------|
|              | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)            | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)       | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) |
| 24-Mar-00    | 8.11                                     | 1.57                         | 9.68                           | 583.83                                  | 7.82                                     | 1.00                         | 8.82                           | 583.82                                  | 8.81                                      | 0.34                         | 9.15                           | NA                                      | 8.83                                 | 0.41                         | 9.24                           | 583.32                                  |
| 05-May-00    | 7.85                                     | 1.82                         | 9.67                           | 584.07                                  | 7.68                                     | 0.92                         | 8.60                           | 583.97                                  | 8.83                                      | 0.45                         | 9.28                           | NA                                      | 8.83                                 | 0.45                         | 9.28                           | 583.31                                  |
| 26-May-00    | 7.50                                     | 2.06                         | 9.56                           | 584.41                                  | 7.40                                     | 0.95                         | 8.35                           | 584.24                                  | 8.53                                      | 0.67                         | 9.20                           | NA                                      | 8.85                                 | 0.40                         | 9.25                           | 583.30                                  |
| 22-Jun-00    | 7.90                                     | 1.86                         | 9.76                           | 584.02                                  | 7.75                                     | 0.74                         | 8.49                           | 583.91                                  | 8.68                                      | 0.42                         | 9.10                           | NA                                      | 9.01                                 | 0.37                         | 9.38                           | 583.14                                  |
| 14-Jul-00    | 7.87                                     | 1.84                         | 9.71                           | 584.05                                  | 7.72                                     | 0.71                         | 8.43                           | 583.94                                  | 8.65                                      | 0.62                         | 9.27                           | NA                                      | NA                                   | NA                           | NA                             | NA                                      |
| 01-Sep-00    | 7.88                                     | 1.77                         | 9.65                           | 584.05                                  | 7.85                                     | 0.70                         | 8.55                           | 583.81                                  | 8.70                                      | 0.58                         | 9.28                           | NA                                      | 9.00                                 | 0.37                         | 9.37                           | 583.15                                  |
| 06-Oct-00    | 8.10                                     | 1.75                         | 9.85                           | 583.83                                  | 7.88                                     | 0.75                         | 8.63                           | 583.78                                  | 8.85                                      | 0.50                         | 9.35                           | NA                                      | 9.00                                 | 0.35                         | 9.35                           | 583.15                                  |
| 04-Nov-00    | 8.26                                     | 1.94                         | 10.20                          | 583.65                                  | 8.08                                     | 0.84                         | 8.92                           | 583.57                                  | 8.98                                      | 0.56                         | 9.54                           | NA                                      | 8.98                                 | 0.48                         | 9.46                           | 583.16                                  |
| 20-Nov-00    | 8.15                                     | 1.66                         | 9.81                           | 583.79                                  | NA                                       | NA                           | NA                             | NA                                      | 8.90                                      | 0.46                         | 9.36                           | NA                                      | 8.89                                 | 0.50                         | 9.39                           | 583.25                                  |
| 02-Jan-01    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 9.10                                      | 0.37                         | 9.47                           | NA                                      | 9.09                                 | 0.38                         | 9.47                           | 583.06                                  |
| 05/06-Feb-01 | 8.28                                     | 1.85                         | 10.13                          | 583.64                                  | 8.02                                     | 0.80                         | 8.82                           | 583.64                                  | 10.40                                     | 0.47                         | 10.87                          | NA                                      | 10.58                                | 1.18                         | 11.76                          | 581.51                                  |
| 28-Feb-01    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | NA                                        | NA                           | NA                             | NA                                      | 8.80                                 | 0.41                         | 9.21                           | 583.35                                  |
| 13-Mar-01    | 8.12                                     | 1.48                         | 9.60                           | 583.83                                  | NA                                       | NA                           | NA                             | NA                                      | 8.80                                      | 0.39                         | 9.19                           | NA                                      | 8.80                                 | 0.40                         | 9.20                           | 583.35                                  |
| 04-May-01    | 8.30                                     | 1.55                         | 9.85                           | 583.65                                  | NA                                       | NA                           | NA                             | NA                                      | 8.90                                      | 0.50                         | 9.40                           | NA                                      | 8.80                                 | 0.41                         | 9.21                           | 583.35                                  |
| 24-May-01    | 8.06                                     | 1.54                         | 9.60                           | 583.89                                  | NA                                       | NA                           | NA                             | NA                                      | 8.84                                      | 0.46                         | 9.30                           | NA                                      | 8.75                                 | 0.35                         | 9.10                           | 583.40                                  |
| 16-Jun-01    | 8.10                                     | 1.52                         | 9.62                           | 583.85                                  | NA                                       | NA                           | NA                             | NA                                      | 8.81                                      | 0.45                         | 9.26                           | NA                                      | 8.68                                 | 0.02                         | 8.70                           | 583.50                                  |
| 15-Aug-01    | 8.31                                     | 1.61                         | 9.92                           | 583.63                                  | NA                                       | NA                           | NA                             | NA                                      | 9.15                                      | 0.23                         | 9.38                           | NA                                      | 9.07                                 | 0.09                         | 9.16                           | 583.10                                  |
| 28-Sep-01    | 8.04                                     | 1.49                         | 9.53                           | 583.91                                  | NA                                       | NA                           | NA                             | NA                                      | 8.96                                      | 0.38                         | 9.34                           | NA                                      | 8.91                                 | 0.16                         | 9.07                           | 583.26                                  |
| 31-Oct-01    | 7.87                                     | 1.54                         | 9.41                           | 584.08                                  | NA                                       | NA                           | NA                             | NA                                      | 9.04                                      | 0.20                         | 9.24                           | NA                                      | 8.84                                 | 0.23                         | 9.07                           | 583.32                                  |
| 05-Dec-01    | 8.15                                     | 1.41                         | 9.56                           | 583.81                                  | NA                                       | NA                           | NA                             | NA                                      | 8.99                                      | 0.22                         | 9.21                           | NA                                      | 8.79                                 | 0.26                         | 9.05                           | 583.37                                  |
| 10-Jan-02    | 8.31                                     | 0.33                         | 8.64                           | 583.73                                  | NA                                       | NA                           | NA                             | NA                                      | 8.91                                      | 0.21                         | 9.12                           | NA                                      | 8.85                                 | 0.17                         | 9.02                           | 583.32                                  |
| 12-Feb-02    | 8.13                                     | 1.41                         | 9.54                           | 583.83                                  | NA                                       | NA                           | NA                             | NA                                      | 8.89                                      | 0.16                         | 9.05                           | NA                                      | 8.80                                 | 0.24                         | 9.04                           | 583.36                                  |
| 18-Mar-02    | 7.90                                     | 1.45                         | 9.35                           | 584.05                                  | NA                                       | NA                           | NA                             | NA                                      | NA                                        | NA                           | NA                             | NA                                      | 8.78                                 | 0.20                         | 8.98                           | 583.38                                  |
| 06-May-02    | 8.01                                     | 0.93                         | 8.94                           | 583.99                                  | NA                                       | NA                           | NA                             | NA                                      | 8.58                                      | 0.52                         | 9.10                           | NA                                      | 8.50                                 | 0.21                         | 8.71                           | 583.66                                  |
| 22-May-02    | 8.02                                     | 1.56                         | 9.58                           | 583.93                                  | NA                                       | NA                           | NA                             | NA                                      | 8.87                                      | 0.33                         | 9.20                           | NA                                      | 8.81                                 | 0.34                         | 9.15                           | 583.34                                  |
| 17-Jun-02    | 7.98                                     | 1.57                         | 9.55                           | 583.96                                  | NA                                       | NA                           | NA                             | NA                                      | NA                                        | NA                           | NA                             | NA                                      | NA                                   | NA                           | NA                             | NA                                      |
| 25-Sep-02    | 7.67                                     | 2.13                         | 9.80                           | 584.23                                  | NA                                       | NA                           | NA                             | NA                                      | 8.95                                      | 0.30                         | 9.25                           | NA                                      | NA                                   | NA                           | NA                             | NA                                      |
|              |                                          |                              |                                |                                         |                                          |                              |                                |                                         |                                           |                              |                                |                                         |                                      |                              |                                |                                         |

See Notes on Page 4.

**TABLE 3**  
**GROUNDWATER AND LNAPL MEASUREMENT SUMMARY**

**GENERAL MOTORS CORPORATION**  
**SAGINAW MALLEABLE IRON PLANT**  
**SAGINAW, MICHIGAN**

| Date         | MW-158WT<br>reference elevation = 591.78 |                              |                                |                                         | MW-168WT<br>reference elevation = 592.11 |                              |                                |                                         | RW-3<br>reference elevation = 592.32 |                              |                                |                                         | RW-2<br>reference elevation = 592.07 |                              |                                |                                         |
|--------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|--------------------------------------|------------------------------|--------------------------------|-----------------------------------------|--------------------------------------|------------------------------|--------------------------------|-----------------------------------------|
|              | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)       | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)       | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) |
| 24-Mar-00    | 8.37                                     | 0.01                         | 8.38                           | 583.41                                  | 8.16                                     | 1.66                         | 9.82                           | 583.82                                  | 10.59                                | 0.01                         | 10.60                          | 581.73                                  | 8.70                                 | 0.03                         | 8.73                           | 583.37                                  |
| 05-May-00    | 8.30                                     | 0.01                         | 8.31                           | 583.48                                  | 7.93                                     | 1.92                         | 9.85                           | 584.03                                  | 10.69                                | 0.01                         | 10.70                          | 581.63                                  | NA                                   | NA                           | NA                             | NA                                      |
| 26-May-00    | NP                                       | 0.00                         | 8.09                           | 583.69                                  | 7.57                                     | 1.96                         | 9.53                           | 584.38                                  | NP                                   | 0.00                         | 10.70                          | 581.62                                  | NP                                   | 0.00                         | 8.78                           | 583.29                                  |
| 22-Jun-00    | NP                                       | 0.00                         | 8.25                           | 583.53                                  | 7.80                                     | 1.60                         | 9.40                           | 584.18                                  | NP                                   | 0.00                         | 7.53                           | 584.79                                  | NP                                   | 0.00                         | 9.00                           | 583.07                                  |
| 14-Jul-00    | NP                                       | 0.00                         | 8.21                           | 583.57                                  | 7.78                                     | 1.59                         | 9.37                           | 584.20                                  | NP                                   | 0.00                         | 7.53                           | 584.79                                  | NP                                   | 0.00                         | 9.10                           | 582.97                                  |
| 01-Sep-00    | NP                                       | 0.00                         | 8.30                           | 583.48                                  | 7.94                                     | 1.58                         | 9.52                           | 584.04                                  | NP                                   | 0.00                         | 7.12                           | 585.20                                  | NP                                   | 0.00                         | 9.10                           | 582.97                                  |
| 06-Oct-00    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | NP                                   | 0.00                         | 7.90                           | 584.42                                  | NP                                   | 0.00                         | 9.10                           | 582.97                                  |
| 04-Nov-00    | NP                                       | 0.00                         | 8.56                           | 583.22                                  | NA                                       | NA                           | NA                             | NA                                      | NP                                   | 0.00                         | 8.11                           | 584.21                                  | NP                                   | 0.00                         | 9.05                           | 583.02                                  |
| 20-Nov-00    | 8.48                                     | 0.01                         | 8.49                           | 583.30                                  | 8.11                                     | 1.82                         | 9.93                           | 583.85                                  | 7.67                                 | 0.01                         | 7.68                           | 584.65                                  | 8.93                                 | 0.01                         | 8.94                           | 583.14                                  |
| 02-Jan-01    | NA                                       | NA                           | NA                             | NA                                      | 8.46                                     | 1.12                         | 9.58                           | 583.56                                  | 8.35                                 | 0.01                         | 8.36                           | 583.97                                  | 8.87                                 | 0.01                         | 8.88                           | 583.20                                  |
| 05/06-Feb-01 | 9.09                                     | 0.01                         | 9.10                           | 582.69                                  | 7.92                                     | 1.91                         | 9.83                           | 584.04                                  | NP                                   | 0.00                         | 10.52                          | 581.80                                  | NP                                   | 0.00                         | 10.61                          | 581.46                                  |
| 28-Feb-01    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 9.09                                 | 0.01                         | 9.10                           | 583.23                                  | 8.95                                 | 0.01                         | 8.96                           | 583.12                                  |
| 13-Mar-01    | NP                                       | 0.00                         | 8.65                           | 583.13                                  | 7.95                                     | 1.79                         | 9.74                           | 584.02                                  | NP                                   | 0.00                         | 9.84                           | 582.48                                  | 8.94                                 | 0.01                         | 8.95                           | 583.13                                  |
| 04-May-01    | NP                                       | 0.00                         | 8.45                           | 583.33                                  | 8.16                                     | 1.64                         | 9.80                           | 583.82                                  | 10.94                                | 0.01                         | 10.95                          | 581.38                                  | 8.90                                 | 0.01                         | 8.91                           | 583.17                                  |
| 24-May-01    | 8.36                                     | 0.01                         | 8.37                           | 583.42                                  | 7.95                                     | 1.55                         | 9.50                           | 584.04                                  | 9.90                                 | 0.01                         | 9.91                           | 582.42                                  | 8.88                                 | 0.01                         | 8.89                           | 583.19                                  |
| 16-Jun-01    | 8.42                                     | 0.01                         | 8.43                           | 583.36                                  | 7.93                                     | 1.55                         | 9.48                           | 584.06                                  | 9.87                                 | 0.01                         | 9.88                           | 582.45                                  | 8.92                                 | 0.01                         | 8.93                           | 583.15                                  |
| 15-Aug-01    | NP                                       | 0.00                         | 8.67                           | 583.11                                  | 8.41                                     | 1.17                         | 9.58                           | 583.61                                  | 8.43                                 | 0.01                         | 8.44                           | 583.89                                  | 9.05                                 | 0.01                         | 9.06                           | 583.02                                  |
| 28-Sep-01    | NP                                       | 0.00                         | 8.51                           | 583.27                                  | NA                                       | NA                           | NA                             | NA                                      | NP                                   | 0.00                         | 6.87                           | 585.45                                  | NP                                   | 0.00                         | 8.75                           | 583.32                                  |
| 31-Oct-01    | NP                                       | 0.00                         | 9.41                           | 582.37                                  | NA                                       | NA                           | NA                             | NA                                      | 8.21                                 | 0.01                         | 8.22                           | 584.11                                  | 8.73                                 | 0.01                         | 8.74                           | 583.34                                  |
| 05-Dec-01    | 8.43                                     | 0.01                         | 8.44                           | 583.35                                  | 8.24                                     | 0.95                         | 9.19                           | 583.79                                  | 8.59                                 | 0.01                         | 8.60                           | 583.73                                  | 8.69                                 | 0.04                         | 8.73                           | 583.38                                  |
| 10-Jan-02    | 8.54                                     | 0.01                         | 8.55                           | 583.24                                  | NA                                       | NA                           | NA                             | NA                                      | 8.69                                 | 0.01                         | 8.70                           | 583.63                                  | 8.78                                 | 0.01                         | 8.79                           | 583.29                                  |
| 12-Feb-02    | 8.39                                     | 0.02                         | 8.41                           | 583.39                                  | 8.21                                     | 0.97                         | 9.18                           | 583.82                                  | 8.56                                 | 0.01                         | 8.57                           | 583.76                                  | 8.68                                 | 0.01                         | 8.69                           | 583.39                                  |
| 18-Mar-02    | NP                                       | 0.00                         | 8.25                           | 583.53                                  | NA                                       | NA                           | NA                             | NA                                      | NP                                   | 0.00                         | 7.83                           | 584.49                                  | NP                                   | 0.00                         | 8.50                           | 583.57                                  |
| 06-May-02    | NP                                       | 0.00                         | 7.62                           | 584.16                                  | 7.80                                     | 1.27                         | 9.07                           | 584.21                                  | 8.08                                 | 0.01                         | 8.09                           | 584.24                                  | NP                                   | 0.00                         | 8.16                           | 583.91                                  |
| 22-May-02    | NP                                       | 0.00                         | 7.75                           | 584.03                                  | 7.41                                     | 1.15                         | 8.56                           | 584.61                                  | NP                                   | 0.00                         | 7.65                           | 584.67                                  | 8.27                                 | 0.01                         | 8.28                           | 583.80                                  |
| 17-Jun-02    | 7.65                                     | 0.01                         | 7.66                           | 584.13                                  | 7.45                                     | 1.79                         | 9.24                           | 584.52                                  | 7.66                                 | 0.01                         | 7.67                           | 584.66                                  | 8.28                                 | 0.01                         | 8.29                           | 583.79                                  |
| 25-Sep-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 8.60                                 | 0.01                         | 8.61                           | 583.72                                  | 8.93                                 | 0.01                         | 8.94                           | 583.14                                  |
|              |                                          |                              |                                |                                         |                                          |                              |                                |                                         |                                      |                              |                                |                                         |                                      |                              |                                |                                         |

See Notes on Page 4.

**TABLE 3**  
**GROUNDWATER AND LNAPL MEASUREMENT SUMMARY**

**GENERAL MOTORS CORPORATION**  
**SAGINAW MALLEABLE IRON PLANT**  
**SAGINAW, MICHIGAN**

| Date         | MW-169WT<br>reference elevation = 591.82 |                        |                       |                                   | MW-172WT<br>reference elevation = 591.51 |                        |                       |                                   | MW-160WT<br>reference elevation = 591.53 |                        |                       |                                   | RW-4<br>reference elevation = 592.27 |                        |                       |                                   |
|--------------|------------------------------------------|------------------------|-----------------------|-----------------------------------|------------------------------------------|------------------------|-----------------------|-----------------------------------|------------------------------------------|------------------------|-----------------------|-----------------------------------|--------------------------------------|------------------------|-----------------------|-----------------------------------|
|              | 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) |
| 24-Mar-00    | 8.66                                     | 0.01                   | 8.67                  | 583.16                            | 8.10                                     | 0.33                   | 8.43                  | 583.38                            | NA                                       | NA                     | NA                    | NA                                | 8.14                                 | 0.15                   | 8.29                  | 584.12                            |
| 05-May-00    | 8.49                                     | 0.01                   | 8.50                  | 583.33                            | 8.18                                     | 0.40                   | 8.58                  | 583.30                            | NA                                       | NA                     | NA                    | NA                                | 8.12                                 | 0.16                   | 8.28                  | 584.14                            |
| 26-May-00    | NP                                       | 0.00                   | 8.43                  | 583.39                            | 8.09                                     | 0.01                   | 8.10                  | 583.42                            | 8.11                                     | 0.40                   | 8.51                  | 583.39                            | 7.65                                 | 0.20                   | 7.85                  | 584.60                            |
| 22-Jun-00    | NP                                       | 0.00                   | 8.36                  | 583.46                            | 8.12                                     | 0.48                   | 8.60                  | 583.35                            | 8.15                                     | 0.52                   | 8.67                  | 583.34                            | 7.87                                 | 0.18                   | 8.05                  | 584.39                            |
| 14-Jul-00    | NP                                       | 0.00                   | 8.34                  | 583.48                            | 8.10                                     | 0.47                   | 8.57                  | 583.37                            | 8.11                                     | 0.55                   | 8.66                  | 583.38                            | 7.84                                 | 0.16                   | 8.00                  | 584.42                            |
| 01-Sep-00    | NP                                       | 0.00                   | 8.41                  | 583.41                            | 8.14                                     | 0.48                   | 8.62                  | 583.33                            | 8.20                                     | 0.51                   | 8.71                  | 583.29                            | 8.01                                 | 0.21                   | 8.22                  | 584.24                            |
| 06-Oct-00    | NP                                       | 0.00                   | 8.32                  | 583.50                            | 8.30                                     | 0.90                   | 9.20                  | 583.14                            | NA                                       | NA                     | NA                    | NA                                | 7.71                                 | 0.22                   | 7.93                  | 584.54                            |
| 04-Nov-00    | NA                                       | NA                     | NA                    | NA                                | 8.47                                     | 1.03                   | 9.50                  | 582.96                            | 8.45                                     | 0.77                   | 9.22                  | 583.02                            | 8.45                                 | 0.08                   | 8.53                  | 583.81                            |
| 20-Nov-00    | NA                                       | NA                     | NA                    | NA                                | 8.31                                     | 0.70                   | 9.01                  | 583.14                            | 8.40                                     | 0.63                   | 9.03                  | 583.08                            | 8.30                                 | 0.05                   | 8.35                  | 583.97                            |
| 02-Jan-01    | NA                                       | NA                     | NA                    | NA                                | NA                                       | NA                     | NA                    | NA                                | 8.48                                     | 0.66                   | 9.14                  | 583.00                            | NP                                   | 0.00                   | 14.18                 | 578.09                            |
| 05/06-Feb-01 | 8.65                                     | 0.01                   | 8.66                  | 583.17                            | 8.42                                     | 1.14                   | 9.56                  | 583.00                            | 8.54                                     | 0.68                   | 9.22                  | 582.94                            | 12.25                                | 0.01                   | 12.26                 | 580.02                            |
| 28-Feb-01    | NA                                       | NA                     | NA                    | NA                                | NA                                       | NA                     | NA                    | NA                                | NA                                       | NA                     | NA                    | NA                                | NA                                   | NA                     | NA                    | NA                                |
| 13-Mar-01    | NA                                       | NA                     | NA                    | NA                                | 8.27                                     | 0.73                   | 9.00                  | 583.18                            | 8.36                                     | 0.45                   | 8.81                  | 583.13                            | NP                                   | 0.00                   | 8.05                  | 584.22                            |
| 04-May-01    | 8.04                                     | 0.01                   | 8.05                  | 583.78                            | 8.36                                     | 0.91                   | 9.27                  | 583.08                            | 8.45                                     | 0.65                   | 9.10                  | 583.03                            | NP                                   | 0.00                   | 8.30                  | 583.97                            |
| 24-May-01    | 7.93                                     | 0.01                   | 7.94                  | 583.89                            | 8.33                                     | 0.79                   | 9.12                  | 583.12                            | 8.42                                     | 0.52                   | 8.94                  | 583.07                            | 7.98                                 | 0.01                   | 7.99                  | 584.29                            |
| 16-Jun-01    | 7.91                                     | 0.01                   | 7.92                  | 583.91                            | 8.36                                     | 0.78                   | 9.14                  | 583.09                            | 8.48                                     | 0.50                   | 8.98                  | 583.01                            | 8.06                                 | 0.01                   | 8.07                  | 584.21                            |
| 15-Aug-01    | 8.45                                     | 0.01                   | 8.46                  | 583.37                            | 8.39                                     | 0.78                   | 9.17                  | 583.06                            | 8.47                                     | 0.64                   | 9.11                  | 583.01                            | NP                                   | 0.00                   | 8.16                  | 584.11                            |
| 28-Sep-01    | NP                                       | 0.00                   | 8.05                  | 583.77                            | 8.19                                     | 0.35                   | 8.54                  | 583.29                            | 8.31                                     | 0.43                   | 8.74                  | 583.19                            | 8.09                                 | 0.01                   | 8.10                  | 584.18                            |
| 31-Oct-01    | NP                                       | 0.00                   | 7.85                  | 583.97                            | 8.18                                     | 0.19                   | 8.37                  | 583.31                            | 8.30                                     | 0.38                   | 8.68                  | 583.20                            | NA                                   | NA                     | NA                    | NA                                |
| 05-Dec-01    | NP                                       | 0.00                   | 7.81                  | 584.01                            | 8.14                                     | 0.21                   | 8.35                  | 583.35                            | 8.29                                     | 0.39                   | 8.68                  | 583.21                            | NA                                   | NA                     | NA                    | NA                                |
| 10-Jan-02    | NP                                       | 0.00                   | 8.62                  | 583.20                            | 8.23                                     | 0.66                   | 8.89                  | 583.23                            | 8.31                                     | 0.38                   | 8.69                  | 583.19                            | NA                                   | NA                     | NA                    | NA                                |
| 12-Feb-02    | NP                                       | 0.00                   | 7.76                  | 584.06                            | 8.12                                     | 0.20                   | 8.32                  | 583.37                            | 8.26                                     | 0.38                   | 8.64                  | 583.24                            | NA                                   | NA                     | NA                    | NA                                |
| 18-Mar-02    | NP                                       | 0.00                   | 7.96                  | 583.86                            | 7.93                                     | 0.25                   | 8.18                  | 583.56                            | 7.99                                     | 0.19                   | 8.18                  | 583.52                            | NA                                   | NA                     | NA                    | NA                                |
| 06-May-02    | NP                                       | 0.00                   | 7.90                  | 583.92                            | 7.64                                     | 0.21                   | 7.85                  | 583.85                            | 7.71                                     | 0.20                   | 7.91                  | 583.80                            | NA                                   | NA                     | NA                    | NA                                |
| 22-May-02    | NP                                       | 0.00                   | 7.96                  | 583.86                            | 7.78                                     | 0.15                   | 7.93                  | 583.72                            | 7.83                                     | 0.29                   | 8.12                  | 583.68                            | NA                                   | NA                     | NA                    | NA                                |
| 17-Jun-02    | 7.91                                     | 0.01                   | 7.92                  | 583.91                            | 7.76                                     | 0.23                   | 7.99                  | 583.73                            | 7.83                                     | 0.31                   | 8.14                  | 583.68                            | NA                                   | NA                     | NA                    | NA                                |
| 25-Sep-02    | 8.17                                     | 0.01                   | 8.18                  | 583.65                            | 8.47                                     | 0.53                   | 9.00                  | 583.00                            | 8.36                                     | 0.79                   | 9.15                  | 583.11                            | NA                                   | NA                     | NA                    | NA                                |
|              |                                          |                        |                       |                                   |                                          |                        |                       |                                   |                                          |                        |                       |                                   |                                      |                        |                       |                                   |

See Notes on Page 4.

**TABLE 3**  
**GROUNDWATER AND LNAPL MEASUREMENT SUMMARY**

**GENERAL MOTORS CORPORATION**  
**SAGINAW MALLEABLE IRON PLANT**  
**SAGINAW, MICHIGAN**

| Date         | MW-148WT<br>reference elevation = 592.02 |                              |                                |                                         | MW-170WT<br>reference elevation = 591.28 |                              |                                |                                         | MW-178WT<br>reference elevation = 590.35 |                              |                                |                                         | MW-175WT<br>reference elevation not available |                              |                                |                                         |
|--------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|-----------------------------------------------|------------------------------|--------------------------------|-----------------------------------------|
|              | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)           | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) | Depth<br>to<br>LNAPL<br>(feet)                | LNAPL<br>Thickness<br>(feet) | Depth<br>to<br>Water<br>(feet) | Groundwater<br>Elevation<br>(corrected) |
| 24-Mar-00    | 7.70                                     | 2.52                         | 10.22                          | 584.12                                  | 11.00                                    | 0.02                         | 11.02                          | 580.28                                  | 7.65                                     | 0.80                         | 8.45                           | 582.64                                  | 7.66                                          | 0.01                         | 7.67                           | NA                                      |
| 05-May-00    | 7.63                                     | 2.55                         | 10.18                          | 584.19                                  | 11.24                                    | 0.02                         | 11.26                          | 580.04                                  | 7.58                                     | 1.01                         | 8.59                           | 582.69                                  | 7.59                                          | 0.01                         | 7.60                           | NA                                      |
| 26-May-00    | 6.96                                     | 2.89                         | 9.85                           | 584.83                                  | 10.89                                    | 0.02                         | 10.91                          | 580.39                                  | 7.58                                     | 1.00                         | 8.58                           | 582.69                                  | NP                                            | 0.00                         | 7.61                           | NA                                      |
| 22-Jun-00    | 7.05                                     | 2.75                         | 9.80                           | 584.75                                  | 10.92                                    | 0.02                         | 10.94                          | 580.36                                  | 7.87                                     | 0.78                         | 8.65                           | 582.42                                  | NP                                            | 0.00                         | 7.82                           | NA                                      |
| 14-Jul-00    | 7.01                                     | 2.77                         | 9.78                           | 584.79                                  | 10.87                                    | 0.02                         | 10.89                          | 580.41                                  | 7.85                                     | 0.75                         | 8.60                           | 582.44                                  | NP                                            | 0.00                         | 7.79                           | NA                                      |
| 01-Sep-00    | 7.20                                     | 2.65                         | 9.85                           | 584.61                                  | NA                                       | NA                           | NA                             | NA                                      | 7.90                                     | 0.78                         | 8.68                           | 582.39                                  | NP                                            | 0.00                         | 7.91                           | NA                                      |
| 06-Oct-00    | 6.85                                     | 2.95                         | 9.80                           | 584.93                                  | 10.78                                    | 0.02                         | 10.80                          | 580.50                                  | 7.44                                     | 0.95                         | 8.39                           | 582.83                                  | NP                                            | 0.00                         | 7.51                           | NA                                      |
| 04-Nov-00    | 8.02                                     | 3.13                         | 11.15                          | 583.75                                  | NA                                       | NA                           | NA                             | NA                                      | 7.66                                     | 0.59                         | 8.25                           | 582.64                                  | NP                                            | 0.01                         | 6.58                           | NA                                      |
| 20-Nov-00    | 7.85                                     | 3.24                         | 11.09                          | 583.91                                  | NA                                       | NA                           | NA                             | NA                                      | 7.64                                     | 0.87                         | 8.51                           | 582.64                                  | NP                                            | 0.00                         | 7.64                           | NA                                      |
| 02-Jan-01    | 10.56                                    | 3.65                         | 14.21                          | 581.17                                  | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | NP                                            | 0.00                         | 7.81                           | NA                                      |
| 05/06-Feb-01 | 9.56                                     | 3.07                         | 12.63                          | 582.21                                  | NA                                       | NA                           | NA                             | NA                                      | 7.64                                     | 0.96                         | 8.60                           | 582.63                                  | NP                                            | 0.01                         | 7.66                           | NA                                      |
| 28-Feb-01    | 8.87                                     | 1.54                         | 10.41                          | 583.03                                  | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | NP                                            | 0.00                         | 7.40                           | NA                                      |
| 13-Mar-01    | 7.70                                     | 2.70                         | 10.40                          | 584.10                                  | NA                                       | NA                           | NA                             | NA                                      | 7.63                                     | 0.92                         | 8.55                           | 582.65                                  | NP                                            | 0.00                         | 7.50                           | NA                                      |
| 04-May-01    | 8.05                                     | 1.80                         | 9.85                           | 583.83                                  | NA                                       | NA                           | NA                             | NA                                      | 7.62                                     | 1.11                         | 8.73                           | 582.64                                  | NP                                            | 0.00                         | 7.37                           | NA                                      |
| 24-May-01    | 7.68                                     | 1.77                         | 9.45                           | 584.20                                  | NA                                       | NA                           | NA                             | NA                                      | 7.64                                     | 0.92                         | 8.56                           | 582.64                                  | NP                                            | 0.00                         | 7.41                           | NA                                      |
| 16-Jun-01    | 7.61                                     | 1.77                         | 9.38                           | 584.27                                  | NA                                       | NA                           | NA                             | NA                                      | 7.68                                     | 0.94                         | 8.62                           | 582.59                                  | NP                                            | 0.01                         | 7.48                           | NA                                      |
| 15-Aug-01    | 7.81                                     | 1.71                         | 9.52                           | 584.07                                  | NA                                       | NA                           | NA                             | NA                                      | 7.73                                     | 0.80                         | 8.53                           | 582.56                                  | NP                                            | 0.00                         | 7.41                           | NA                                      |
| 28-Sep-01    | 7.53                                     | 2.11                         | 9.64                           | 584.32                                  | NA                                       | NA                           | NA                             | NA                                      | 7.61                                     | 0.88                         | 8.49                           | 582.67                                  | NP                                            | 0.00                         | 6.95                           | NA                                      |
| 31-Oct-01    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 7.66                                     | 0.87                         | 8.53                           | 582.62                                  | NP                                            | 0.00                         | 6.86                           | NA                                      |
| 05-Dec-01    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 7.55                                     | 0.98                         | 8.53                           | 582.72                                  | NP                                            | 0.00                         | 6.90                           | NA                                      |
| 10-Jan-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 7.48                                     | 1.22                         | 8.70                           | 582.77                                  | NP                                            | 0.00                         | 6.84                           | NA                                      |
| 12-Feb-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      | 7.99                                     | 1.40                         | 9.39                           | 582.25                                  | NP                                            | 0.00                         | 7.67                           | NA                                      |
| 18-Mar-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      |                                          |                              |                                |                                         |                                               |                              |                                |                                         |
| 06-May-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      |                                          |                              |                                |                                         |                                               |                              |                                |                                         |
| 22-May-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      |                                          |                              |                                |                                         |                                               |                              |                                |                                         |
| 17-Jun-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      |                                          |                              |                                |                                         |                                               |                              |                                |                                         |
| 25-Sep-02    | NA                                       | NA                           | NA                             | NA                                      | NA                                       | NA                           | NA                             | NA                                      |                                          |                              |                                |                                         |                                               |                              |                                |                                         |

**Notes:**

The reference elevation for each of the recovery wells (KW-1, KW-2, KW-3, and KW-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 or gravel).  
 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.  
 Monitoring well MW-170WT was destroyed during construction activities associated with lining the Stormwater Pond.  
 Elevations for wells TP-2 and MW-175 are not available. Missing values for MW-160 are due to a lodged well cover.  
 Beginning in October 2001, recovery well KW-4 was disconnected from the recovery system, and monitoring wells located on the upgradient Delphi Plant 2 property were excluded from the monthly gauging program.

TABLE 4

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | MW-117WT |         |         |         | MW-117S1 |         |         |         | MW-118WT |         |         |         |         |         |
|-------------------------------------------|----------|---------|---------|---------|----------|---------|---------|---------|----------|---------|---------|---------|---------|---------|
|                                           | 6/20/95  | 5/19/00 | 6/18/01 | 6/26/02 | 6/20/95  | 5/19/00 | 6/19/01 | 6/26/02 | 6/20/95  | 5/17/00 | 6/19/01 | 6/19/01 | 6/27/02 | 6/27/02 |
|                                           | FS       | FS      | FS      | FS      | FS       | FS      | FS      | FS      | FS       | FS      | FS      | DUP     | FS      | DUP     |
| Acetone                                   | 50 U     | 10 U    | 10 U    | 10 UJ   | 50 U     | 10 U    | 10 U    | 10 UJ   | 50 U     | 10 U    | 40 U    | 40 U    | 20 UJ   | 10 U    |
| Benzene                                   | 1.0 U    | 0.13 J  | 1.0 U   | 0.16 J  | 1.0 U    | 0.60 J  | 1.0 U   | 0.75 J  | 1.0 U    | 0.54 J  | 4.0 U   | 4.0 U   | 0.34 J  | 1.0 U   |
| Bromodichloromethane                      | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Bromoform                                 | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Bromomethane                              | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 2-Butanone                                | 50 U     | 10 U    | 10 U    | 10 U    | 50 U     | 10 U    | 10 U    | 10 U    | 50 U     | 10 U    | 40 U    | 40 U    | 20 UJ   | 10 UJ   |
| Carbon disulfide                          | 50 U     | 1.0 U   | 1.0 U   | 1.0 U   | 0.50 J   | 1.0 U   | 1.0 U   | 1.0 U   | 50 U     | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Carbon Tetrachloride                      | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Chlorobenzene                             | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Chloroethane                              | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Chloroform                                | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.5      | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Chloromethane                             | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Dibromochloromethane                      | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,1-Dichloroethane                        | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,2-Dichloroethane                        | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,1-Dichloroethene                        | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,2-Dichloroethene (total)                | 1.0 U    | 1.0 U   | 1.0 U   | --      | 1.0 U    | 1.0 U   | 1.0 U   | --      | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| cis-1,2-Dichloroethene                    | 1.0 U    | 0.50 U  | 0.50 U  | 0.50 U  | 1.0 U    | 0.50 U  | 0.50 U  | 0.50 U  | 1.0 U    | 0.50 U  | 2.0 U   | 2.0 U   | 1.0 U   | 0.50 U  |
| trans-1,2-Dichloroethene                  | 1.0 U    | 0.50 U  | 0.50 U  | 0.50 U  | 1.0 U    | 0.50 U  | 0.50 U  | 0.50 U  | 1.0 U    | 0.50 U  | 2.0 U   | 2.0 U   | 1.0 U   | 0.50 U  |
| 1,2-Dichloropropane                       | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| cis-1,3-Dichloropropene                   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| trans-1,3-Dichloropropene                 | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Ethylbenzene                              | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 0.10 J  | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 2-Hexanone                                | R        | 10 U    | 10 U    | 10 U    | R        | 10 U    | 10 U    | 10 U    | R        | 10 U    | 40 U    | 40 U    | 20 UJ   | 10 U    |
| 4-Methyl-2-pentanone                      | 50 U     | 10 U    | 5.0 U   | 10 U    | 50 U     | 10 U    | 5.0 U   | 10 U    | 50 U     | 28      | 180     | 180     | 4.9 J   | 5.2 J   |
| Methylene Chloride                        | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Styrene                                   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Tetrachloroethene                         | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,1,2,2-Tetrachloroethane                 | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Toluene                                   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,1,1-Trichloroethane                     | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| 1,1,2-Trichloroethane                     | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Trichloroethene                           | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Vinyl Chloride                            | 1.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 1.0 U    | 0.14 J  | 1.0 U   | 0.21 J  | 1.0 U    | 1.0 U   | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |
| Xylenes (total)                           | 3.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 3.0 U    | 1.0 U   | 1.0 U   | 1.0 U   | 3.0 U    | 0.47 J  | 4.0 U   | 4.0 U   | 2.0 U   | 1.0 U   |

See Notes, Page 5.

TABLE 4

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | MW-118S1      |               |                |               |               | MW-128WT      |               |               |               | MW-128S1      |               |               |               |
|-------------------------------------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                           | 6/20/95<br>FS | 5/17/00<br>FS | 5/17/00<br>DUP | 6/19/01<br>FS | 6/27/02<br>FS | 7/26/95<br>FS | 5/19/00<br>FS | 6/20/01<br>FS | 6/26/02<br>FS | 7/26/95<br>FS | 5/19/00<br>FS | 6/20/01<br>FS | 6/26/02<br>FS |
| Acetone                                   | 50 U          | 10 U          | 10 U           | 10 U          | 10 U          | 7.3 J         | 10 U          | 10 U          | 10 UJ         | 6.7 J         | 10 U          | 10 U          | 10 UJ         |
| Benzene                                   | 1.0 U         | 0.47 J        | 0.46 J         | 1.0 U         | 0.37 J        | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 0.28 J        | 0.27 J        | 0.33 J        |
| Bromodichloromethane                      | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromoform                                 | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromomethane                              | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 2-Butanone                                | 50 U          | 10 U          | 10 U           | 10 U          | 10 UJ         | 50 U          | 10 U          | 10 U          | 10 U          | 50 U          | 10 U          | 10 U          | 10 U          |
| Carbon disulfide                          | 1.3           | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 50 U          | 1.0 U         | 1.0 U         | 1.0 U         | 50 U          | 1.0 U         | 1.0 U         | 1.0 U         |
| Carbon Tetrachloride                      | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chlorobenzene                             | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloroethane                              | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloroform                                | 1.1           | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloromethane                             | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Dibromochloromethane                      | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1-Dichloroethane                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,2-Dichloroethane                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1-Dichloroethene                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,2-Dichloroethene (total)                | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | --            | 1.0 U         | 1.0 U         | 1.0 U         | --            | 1.0 U         | 1.0 U         | 1.0 U         | --            |
| cis-1,2-Dichloroethene                    | 1.0 U         | 0.50 U        | 0.50 U         | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        |
| trans-1,2-Dichloroethene                  | 1.0 U         | 0.50 U        | 0.50 U         | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        |
| 1,2-Dichloropropane                       | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| cis-1,3-Dichloropropene                   | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| trans-1,3-Dichloropropene                 | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 UJ        | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 UJ        | 1.0 U         | 1.0 U         | 1.0 U         |
| Ethylbenzene                              | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 2-Hexanone                                | R             | 10 U          | 10 U           | 10 U          | 10 U          | R             | 10 U          | 10 U          | 10 U          | R             | 10 U          | 10 U          | 10 U          |
| 4-Methyl-2-pentanone                      | 50 U          | 10 U          | 10 U           | 5.0 U         | 10 U          | 50 U          | 10 U          | 5.0 U         | 10 U          | 50 U          | 10 U          | 5.0 U         | 10 U          |
| Methylene Chloride                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Styrene                                   | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Tetrachloroethene                         | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,2,2-Tetrachloroethane                 | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 UJ        | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 UJ        | 1.0 U         | 1.0 U         | 1.0 U         |
| Toluene                                   | 0.90 J        | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,1-Trichloroethane                     | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,2-Trichloroethane                     | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Trichloroethene                           | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Vinyl Chloride                            | 1.0 U         | 0.33 J        | 0.33 J         | 0.27 J        | 0.27 J        | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Xylenes (total)                           | 3.0 U         | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | 3.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 3.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |

See Notes, Page 5.

TABLE 4

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | X-1A          |               |               |               |               | X-1B          |               |               |               | X-1CR2        | X-2A          |               |               |               |
|-------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                           | 7/29/95<br>FS | 6/10/96<br>FS | 5/23/00<br>FS | 6/20/01<br>FS | 6/25/02<br>FS | 7/29/95<br>FS | 5/24/00<br>FS | 6/20/01<br>FS | 6/25/02<br>FS | 6/26/02<br>FS | 7/15/95<br>FS | 5/19/00<br>FS | 6/18/01<br>FS | 6/26/02<br>FS |
| Acetone                                   | 180 U         | 210 U         | 20 U          | 20 U          | 10 U          | 5.5 J         | 16 U          | 11 U          | 20 U          | 10 UJ         | 50 UJ         | 10 U          | 10 U          | 10 UJ         |
| Benzene                                   | 9.5           | 8.7 J         | 8.0           | 9.3           | 6.2           | 1.9           | 1.2           | 2.2           | 1.7 J         | 1.0 U         | 1.0 U         | 0.36 J        | 0.57 J        | 0.71 J        |
| Bromodichloromethane                      | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromoform                                 | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromomethane                              | 3.6 U         | 2.1 U         | 0.34 J        | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 2-Butanone                                | 180 U         | 100 U         | 20 UJ         | 20 U          | 10 U          | 50 U          | 10 UJ         | 10 U          | 20 U          | 10 U          | 50 UJ         | 10 U          | 10 U          | 10 U          |
| Carbon disulfide                          | 180 U         | 100 U         | 2.0 U         | 2.0 U         | 1.0 U         | 50 U          | 0.14 J        | 1.0 U         | 2.0 U         | 1.0 U         | 50 U          | 1.0 U         | 1.0 U         | 1.0 U         |
| Carbon Tetrachloride                      | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chlorobenzene                             | 3.6 U         | 2.1 U         | 0.33 J        | 0.33 J        | 0.21 J        | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloroethane                              | 66            | 65            | 32            | 42            | 15            | 13            | 11            | 15            | 8.4           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloroform                                | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloromethane                             | 3.6 U         | 2.1 U         | 2.0 UJ        | 2.0 U         | 1.0 U         | 1.0 U         | 0.46 J        | 0.88 J        | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Dibromochloromethane                      | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1-Dichloroethane                        | 3.6 U         | 2.1 U         | 0.35 J        | 2.0 U         | 0.54 J        | 1.0 U         | 0.13 J        | 0.18 J        | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,2-Dichloroethane                        | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1-Dichloroethene                        | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,2-Dichloroethene (total)                | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | --            | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| cis-1,2-Dichloroethene                    | 3.6 U         | 2.1 U         | 0.23 J        | 1.0 U         | 0.45 J        | 1.0 U         | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | --            |
| trans-1,2-Dichloroethene                  | 3.6 U         | 2.1 U         | 1.0 U         | 1.0 U         | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        |
| 1,2-Dichloropropane                       | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| cis-1,3-Dichloropropene                   | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| trans-1,3-Dichloropropene                 | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Ethylbenzene                              | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 2-Hexanone                                | 180 U         | 100 U         | 20 U          | 20 U          | 10 U          | 50 U          | 10 U          | 10 U          | 20 U          | 10 U          | 50 U          | 10 U          | 10 U          | 10 U          |
| 4-Methyl-2-pentanone                      | 180 U         | 100 U         | 20 U          | 10 U          | 10 U          | 50 U          | 10 U          | 5.0 U         | 20 U          | 10 U          | 50 U          | 10 U          | 5.0 U         | 10 U          |
| Methylene Chloride                        | 3.6 U         | 5.0 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Styrene                                   | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Tetrachloroethene                         | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,2,2-Tetrachloroethane                 | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Toluene                                   | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,1-Trichloroethane                     | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,2-Trichloroethane                     | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Trichloroethene                           | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Vinyl Chloride                            | 3.6 U         | 2.1 U         | 2.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 2.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Xylenes (total)                           | 11 U          | 6.2 U         | 2.5           | 2.3           | 0.78 J        | 3.0 U         | 1.0 U         | 0.63 J        | 2.0 U         | 1.0 U         | 3.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |

See Notes, Page 5.

TABLE 4

## VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | X-10A         |               | X-10AR2        |                 |               | X-16A         |               |               |               | X-16B         |               |               |               |
|-------------------------------------------|---------------|---------------|----------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                           | 6/13/96<br>FS | 5/24/00<br>FS | 11/27/01<br>FS | 11/27/01<br>DUP | 6/26/02<br>FS | 7/27/95<br>FS | 5/24/00<br>FS | 6/19/01<br>FS | 6/25/02<br>FS | 7/28/95<br>FS | 5/19/00<br>FS | 6/20/01<br>FS | 6/26/02<br>FS |
| Acetone                                   | 100 U         | 10 U          | 10 UJ          | 10 UJ           | 10 UJ         | 50 U          | 10 U          | 10 U          | 10 U          | 50 UJ         | 10 U          | 10 U          | 10 UJ         |
| Benzene                                   | 5.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromodichloromethane                      | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromoform                                 | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Bromomethane                              | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 2-Butanone                                | 50 U          | 10 UJ         | 10 UJ          | 10 UJ           | 10 U          | 50 U          | 10 UJ         | 10 U          | 10 U          | 50 UJ         | 10 U          | 10 U          | 10 U          |
| Carbon disulfide                          | 50 U          | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 50 U          | 1.0 U         | 1.0 U         | 1.0 U         | 50 U          | 1.0 U         | 1.0 U         | 1.0 U         |
| Carbon Tetrachloride                      | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chlorobenzene                             | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloroethane                              | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloroform                                | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Chloromethane                             | 1.0 U         | 1.0 UJ        | 1.0 UJ         | 1.0 UJ          | 1.0 U         | 1.0 U         | 0.18 J        | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Dibromochloromethane                      | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1-Dichloroethane                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,2-Dichloroethane                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1-Dichloroethene                        | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,2-Dichloroethene (total)                | 1.0 U         | 1.0 U         | --             | --              | --            | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| cis-1,2-Dichloroethene                    | 1.0 U         | 0.50 U        | 0.50 U         | 0.50 U          | 0.50 U        | 1.0 U         | 0.28 J        | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        |
| trans-1,2-Dichloroethene                  | 1.0 U         | 0.50 U        | 0.50 U         | 0.50 U          | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        | 1.0 U         | 0.50 U        | 0.50 U        | 0.50 U        |
| 1,2-Dichloropropane                       | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| cis-1,3-Dichloropropene                   | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| trans-1,3-Dichloropropene                 | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 UJ        | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Ethylbenzene                              | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 2-Hexanone                                | 50 U          | 10 U          | 10 UJ          | 10 UJ           | 10 U          | R             | 10 U          | 10 U          | 10 U          | 50 U          | 10 U          | 10 U          | 10 U          |
| 4-Methyl-2-pentanone                      | 50 U          | 10 U          | 10 U           | 10 U            | 10 U          | 50 U          | 10 U          | 5.0 U         | 10 U          | 50 U          | 10 U          | 5.0 U         | 10 U          |
| Methylene Chloride                        | 5.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Styrene                                   | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Tetrachloroethene                         | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,2,2-Tetrachloroethane                 | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Toluene                                   | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,1-Trichloroethane                     | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| 1,1,2-Trichloroethane                     | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Trichloroethene                           | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |
| Vinyl Chloride                            | 1.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 1.0 U         | 5.8           | 4.3           | 4.4           | 1.0 U         | 1.0 U         | 0.34 J        | 0.48 J        |
| Xylenes (total)                           | 3.0 U         | 1.0 U         | 1.0 U          | 1.0 U           | 1.0 U         | 3.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 3.0 U         | 1.0 U         | 1.0 U         | 1.0 U         |

See Notes, Page 5.

**TABLE 4**  
**VOLATILE ORGANIC COMPOUNDS, GROUNDWATER ANALYTICAL DATA**

**REALM, INC. GREEN POINT LANDFILL**  
**SAGINAW, MICHIGAN**  
**ENVIRONMENTAL MONITORING PROGRAM**

**General Notes:**

All concentrations in micrograms per liter ( $\mu\text{g/L}$ ); equivalent to parts per billion (ppb), unless otherwise noted.  
-- = Sample was not analyzed for the listed constituent.

**Location ID:**

MW, X = Permanent monitoring wells.

WT = Water table monitoring wells.

S1 = Well screened at top of sand unit; increasing numbers indicate increased depth within the sand unit (e.g., S2, S3, S4).

**Sample Type:**

FS = Primary field sample, collected by BBL.

DUP = Duplicate field sample, collected by BBL.

**Data Qualifiers:**

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

R = The sample results were rejected.

U = The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.

TABLE 5

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | MW-117WT      |               |               |               |               |               |                | MW-117SI      |               |               |               |               |               |
|-------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                           | 6/20/95<br>FS | 7/14/95<br>FS | 6/11/96<br>FS | 5/19/00<br>FS | 6/18/01<br>FS | 6/26/02<br>FS | 6/26/02<br>DUP | 6/20/95<br>FS | 7/14/95<br>FS | 6/11/96<br>FS | 5/19/00<br>FS | 6/18/01<br>FS | 6/26/02<br>FS |
| <b>TAL Inorganics (ug/L)</b>              |               |               |               |               |               |               |                |               |               |               |               |               |               |
| Aluminum                                  | 350           | --            | 100 U         | 100 U         | 100 U         | 100 U         | --             | 117           | --            | 120           | 100 U         | 100 U         | 100 U         |
| Antimony                                  | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --             | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         |
| Arsenic                                   | 1.3           | --            | --            | 10 U          | 10 U          | 2.2 B         | --             | 1.2           | --            | --            | 10 U          | 10 U          | 10 U          |
| Barium                                    | 2,210         | --            | 2,520         | 3,580         | 3,170         | 2,970         | --             | 1,410         | --            | 1,670         | 1,720         | 1,740         | 1,740         |
| Beryllium                                 | 5.0 U         | --            | --            | 4.0 U         | 4.0 U         | 4.0 U         | --             | 5.0 U         | --            | --            | 4.0 U         | 4.0 U         | 4.0 U         |
| Cadmium                                   | 0.20 U        | --            | --            | 1.0 U         | 1.8           | 1.0 U         | --             | 0.20 U        | --            | --            | 1.0 U         | 1.0 U         | 1.0 U         |
| Calcium                                   | 1,340,000 J   | --            | --            | 1,200,000     | 1,090,000     | 1,110,000     | --             | 133,000 J     | --            | --            | 163,000       | 157,000       | 156,000       |
| Chromium                                  | 50 U          | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         | --             | 50 U          | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         |
| Cobalt                                    | 50 U          | --            | --            | 40 U          | 40 U          | 40 U          | --             | 50 U          | --            | --            | 40 U          | 40 U          | 40 U          |
| Copper                                    | 25 U          | --            | --            | 25 U          | 25 U          | 25 U          | --             | 25 U          | --            | --            | 25 U          | 25 U          | 25 U          |
| Iron                                      | 100,000       | --            | 124,000       | 149,000       | 137,000       | 128,000       | --             | 5,780         | --            | 8,260         | 8,730         | 9,120         | 8,650         |
| Lead                                      | 3.0 UJ        | --            | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | --             | 3.0 UJ        | --            | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         |
| Magnesium                                 | 485,000       | --            | 545,000       | 593,000       | 550,000       | 518,000       | --             | 42,500        | --            | 50,400        | 52,100        | 51,700        | 49,400        |
| Manganese                                 | 5,130         | --            | 5,190         | 5,510         | 4,900         | 4,850         | --             | 347           | --            | 330           | 341           | 340           | 326           |
| Mercury                                   | 0.20 UJ       | --            | --            | 0.20 U        | 0.20 UJ       | 0.20 UJ       | --             | 0.20 UJ       | --            | --            | 0.20 U        | 0.20 UJ       | 0.20 UJ       |
| Nickel                                    | 50 U          | --            | 50 U          | 23.3 B        | 18.2 B        | 18 B          | --             | 50 U          | --            | 50 U          | 40 U          | 40 U          | 40 U          |
| Potassium                                 | 6,960         | --            | --            | 41,300        | 39,800 J      | 40,500 J      | --             | 5,000 U       | --            | --            | 2,330 B       | 2,270 BJ      | 2,490 BJ      |
| Selenium                                  | 5.0 UJ        | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         | --             | 5.0 UJ        | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         |
| Silver                                    | 0.50 U        | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         | --             | 0.50 U        | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         |
| Sodium                                    | 463,000       | --            | 499,000       | 590,000       | 559,000       | 539,000       | --             | 101,000       | --            | 108,000       | 120,000       | 121,000       | 114,000       |
| Thallium                                  | 4.0 UJ        | --            | --            | 17.9          | 10 U          | 8.9 BJ        | --             | 2.0 UJ        | --            | --            | 5.0 B         | 10 U          | 10 UJ         |
| Vanadium                                  | 20 U          | --            | --            | 50 U          | 50 U          | 50 U          | --             | 20 U          | --            | --            | 50 U          | 50 U          | 50 U          |
| Zinc                                      | R             | --            | 20 U          | 20 U          | 20 U          | 20 U          | --             | R             | --            | --            | 20 U          | 12.3 B        | 20 U          |
| Cyanide, Total                            | 5.0 U         | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         | --             | 5.0 U         | --            | --            | 5.0 U         | 5.0 U         | 5.0 U         |
| <b>Landfill Indicator Parameters</b>      |               |               |               |               |               |               |                |               |               |               |               |               |               |
| pH (Standard Units)                       | --            | --            | --            | 6.4           | 7.1           | 7.2           | --             | --            | --            | --            | 7.0           | 8.0           | 8.0           |
| Total Dissolved Solids (mg/L)             | --            | 11,000        | --            | 11,000        | 13,000        | 11,000 J      | 12,000         | --            | --            | --            | 990           | 840           | 920           |
| Chloride (mg/L)                           | --            | 4,600         | --            | 4,930 J       | 5,380         | 5,540         | --             | --            | 230           | --            | 284 J         | 269           | 270           |
| Sulfate (mg/L)                            | --            | --            | --            | 25 UG         | 0.23 B        | 0.32 B        | --             | --            | --            | --            | 2.0 UG        | 0.26 B        | 0.14 B        |
| Nitrate (as N) (mg/L)                     | --            | --            | --            | 12.5 UG       | 0.50 U        | 1.0 U         | --             | --            | --            | --            | 1.0 UG        | 0.50 U        | 0.50 U        |
| Nitrite (as N) (mg/L)                     | --            | --            | --            | 12.5 UG       | R             | 25 U          | --             | --            | --            | --            | 1.0 UG        | R             | 0.50 U        |
| Nitrogen, Ammonia (mg/L)                  | --            | 30 J          | --            | 46            | 63            | 63            | --             | --            | 1 UJ          | --            | 5.1           | 11            | 7.1           |

See Notes, Page 6.

TABLE 5

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | MW-118WT      |               |               |               |               |                |               |                | MW-118SI      |               |               |               |                |               |               |                |
|-------------------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------------|
|                                           | 6/20/95<br>FS | 7/14/95<br>FS | 6/11/96<br>FS | 5/17/00<br>FS | 6/19/01<br>FS | 6/19/01<br>DUP | 6/27/02<br>FS | 6/27/02<br>DUP | 6/20/95<br>FS | 7/14/95<br>FS | 6/11/96<br>FS | 5/17/00<br>FS | 5/17/00<br>DUP | 6/19/01<br>FS | 6/27/02<br>FS | 6/27/02<br>DUP |
| <b>TAL Inorganics (ug/L)</b>              |               |               |               |               |               |                |               |                |               |               |               |               |                |               |               |                |
| Aluminum                                  | 563           | --            | 100 U         | 100 U         | 100 U         | 100 U          | 100 U         | 100 U          | 219           | --            | 100 U         | 100 U         | 100 U          | 100 U         | 100 U         | --             |
| Antimony                                  | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U          | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U         | --             |
| Arsenic                                   | 1.0           | --            | --            | 10 U          | 5.1 B         | 7.4 B          | 3.9 B         | 7.9 B          | 1.8           | --            | --            | 10 U          | 10 U           | 10 U          | 10 U          | --             |
| Barium                                    | 1,970         | --            | 2,420         | 7,970         | 10,700        | 11,200         | 8,650         | 9,200          | 482           | --            | 532           | 593           | 612            | 645           | 622           | --             |
| Beryllium                                 | 5.0 U         | --            | --            | 4.0 U         | 5.0 U         | 4.0 U          | 4.0 U         | 4.0 U          | 5.0 U         | --            | --            | 4.0 U         | 4.0 U          | 4.0 U         | 4.0 U         | --             |
| Cadmium                                   | 0.20 U        | --            | --            | 1.5           | 8.3           | 8.6            | 2.5           | 2.9            | 0.20 U        | --            | --            | 1.0 U         | 1.0 U          | 1.0 U         | 1.0 U         | --             |
| Calcium                                   | 1,950,000     | --            | --            | 4,890,000     | #####         | #####          | 4,630,000     | 4,880,000      | 120,000 J     | --            | --            | 156,000       | 156,000        | 151,000       | 151,000       | --             |
| Chromium                                  | 50 U          | --            | --            | 5.0 U         | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U          | 50 U          | --            | --            | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U         | --             |
| Cobalt                                    | 50 U          | --            | --            | 40 U          | 40 U          | 40 U           | 40 U          | 40 U           | 50 U          | --            | --            | 40 U          | 40 U           | 40 U          | 40 U          | --             |
| Copper                                    | 25 U          | --            | --            | 25 U          | 25 U          | 25 U           | 25 U          | 25 U           | 25 U          | --            | --            | 25 U          | 25 U           | 25 U          | 25 U          | --             |
| Iron                                      | 71,500        | --            | 93,100        | 261,000       | 330,000       | 344,000        | 259,000       | 277,000        | 2,500         | --            | 5,390         | 6,090         | 6,150          | 7,070         | 6,070         | --             |
| Lead                                      | 3.0 UJ        | --            | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U          | 3.0 U         | 3.0 U          | 3.0 UJ        | --            | 3.0 U         | 3.0 U         | 3.0 U          | 3.0 U         | 3.0 U         | --             |
| Magnesium                                 | 372,000       | --            | 457,000       | #####         | #####         | #####          | 1,390,000     | 1,470,000      | 38,100        | --            | 47,000        | 49,300        | 49,800         | 49,400        | 47,900        | --             |
| Manganese                                 | 5,460         | --            | 5,390         | 8,930         | 7,740         | 8,070          | 6,250         | 6,360          | 347           | --            | 383           | 420           | 415            | 428           | 408           | --             |
| Mercury                                   | 0.20 UJ       | --            | --            | 0.20 U        | 0.20 UJ       | 0.20 UJ        | 0.20 UJ       | 0.20 UJ        | 0.20 UJ       | --            | --            | 0.20 U        | 0.20 U         | 0.20 UJ       | 0.20 UJ       | --             |
| Nickel                                    | 50 U          | --            | 50 U          | 17.7 B        | 23.5 B        | 24.4 B         | 29 B          | 31 B           | 50 U          | --            | 50 U          | 40 U          | 40 U           | 40 U          | 40 U          | --             |
| Potassium                                 | 5,000 U       | --            | --            | 16,800        | 30,700 J      | 32,400 J       | 40,000 J      | 43,400 J       | 5,000 U       | --            | --            | 2,170 B       | 2,180 B        | 2,120 BJ      | 2,380 BJ      | --             |
| Selenium                                  | 5.0 UJ        | --            | --            | 5.0 U         | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U          | 5.0 UJ        | --            | --            | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U         | --             |
| Silver                                    | 0.50 U        | --            | --            | 5.0 U         | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U          | 0.50 U        | --            | --            | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U         | --             |
| Sodium                                    | 175,000       | --            | 229,000       | 647,000       | 955,000       | 976,000        | 925,000       | 970,000        | 97,300        | --            | 112,000       | 121,000       | 122,000        | 117,000       | 112,000       | --             |
| Thallium                                  | 2.0 UJ        | --            | --            | 26.8          | 10 U          | 6.5 B          | 19 J          | 7.8 BJ         | 2.0 UJ        | --            | --            | 8.1 B         | 5.4 B          | 10 U          | 10 UJ         | --             |
| Vanadium                                  | 20 U          | --            | --            | 50 U          | 50 U          | 50 U           | 50 U          | 50 U           | 20 U          | --            | --            | 50 U          | 50 U           | 50 U          | 50 U          | --             |
| Zinc                                      | R             | --            | 22.3 U        | 17.8 B        | 20 U          | 20 U           | 20 U          | 20 U           | R             | --            | 35.8 U        | 20 U          | 20 U           | 20 U          | 20 U          | --             |
| Cyanide, Total                            | 5.0 U         | --            | --            | 5.0 U         | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U          | 5.0 U         | --            | --            | 5.0 U         | 5.0 U          | 5.0 U         | 5.0 U         | --             |
| <b>Landfill Indicator Parameters</b>      |               |               |               |               |               |                |               |                |               |               |               |               |                |               |               |                |
| pH (Standard Units)                       | --            | --            | --            | 6.2           | 6.9           | 7.0            | 6.8           | 6.8            | --            | --            | --            | 7.0           | 7.0            | 8.0           | 7.1           | --             |
| Total Dissolved Solids (mg/L)             | --            | 1,400         | --            | 37,000        | 34,000        | 36,000         | 42,000        | 41,000         | --            | 8,000         | --            | 930           | 940            | 910           | 1,200         | 1,200          |
| Chloride (mg/L)                           | --            | 3,700         | --            | 16,100        | 21,800        | 18,800         | 16,900        | 16,500         | --            | 260           | --            | 284           | 281            | 272           | 286           | --             |
| Sulfate (mg/L)                            | --            | --            | 5.0 U         | 100 UG        | 100 U         | 0.63 B         | 0.59 B        | 0.56 B         | --            | --            | 5.0 U         | 4.0 UG        | 4.0 UG         | 0.15 B        | 1.6           | --             |
| Nitrate (as N) (mg/L)                     | --            | --            | 0.08 U        | 50 UG         | 50 U          | 0.50 U         | 2.5 U         | 2.5 U          | --            | --            | 0.08 U        | 2.0 UG        | 2.0 UG         | 0.50 U        | 0.50 U        | --             |
| Nitrite (as N) (mg/L)                     | --            | --            | 0.07 U        | 50 UG         | R             | R              | 2.5 U         | 2.5 U          | --            | --            | 0.07 U        | 2.0 UG        | 2.0 UG         | R             | 0.50 U        | --             |
| Nitrogen, Ammonia (mg/L)                  | --            | 10 J          | --            | 26            | 92            | 76             | 82            | 88             | --            | 4.8 J         | --            | 5.9           | 6.2            | 8.4           | 7.3           | --             |

See Notes, Page 6.

TABLE 5

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | MW-128WT      |               |               |               |               | MW-128SI      |               |               |               |               | X-1A          |               |              |               |               |               |
|-------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|
|                                           | 7/26/95<br>FS | 3/12/97<br>FS | 5/19/00<br>FS | 6/20/01<br>FS | 6/26/02<br>FS | 7/26/95<br>FS | 3/12/97<br>FS | 5/19/00<br>FS | 6/20/01<br>FS | 6/26/02<br>FS | 7/29/95<br>FS | 6/10/96<br>FS | 3/8/97<br>FS | 5/23/00<br>FS | 6/20/01<br>FS | 6/25/02<br>FS |
| <b>TAL Inorganics (ug/L)</b>              |               |               |               |               |               |               |               |               |               |               |               |               |              |               |               |               |
| Aluminum                                  | 448           | --            | 100 U         | 100 U         | 100 U         | 502           | --            | 100 U         | 100 U         | 100 U         | 100 U         | 100 U         | --           | 100 U         | 100 U         | 100 U         |
| Antimony                                  | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --           | 5.0 U         | 5.0 U         | 5.0 U         |
| Arsenic                                   | 3.7           | --            | 5.1 B         | 5.9 B         | 5.8 B         | 17.3          | --            | 18.1          | 19            | 23            | 3.6           | --            | --           | 3.5 B         | 4.4 B         | 3.1 B         |
| Barium                                    | 628           | --            | 142           | 219           | 244           | 936           | --            | 820           | 791           | 727           | 535           | 515           | --           | 475           | 599           | 304           |
| Beryllium                                 | 5.0 U         | --            | 4.0 U         | 4.0 U         | 4.0 U         | 5.0 U         | --            | 4.0 U         | 4.0 U         | 4.0 U         | 5.0 U         | --            | --           | 4.0 U         | 4.0 U         | 4.0 U         |
| Cadmium                                   | 0.20 UJ       | --            | 1.0 U         | 1.0 U         | 1.0 U         | 0.20 UJ       | --            | 1.0 U         | 1.0 U         | 1.0 U         | 0.20 UJ       | --            | --           | 1.0 U         | 1.0 U         | 1.0 U         |
| Calcium                                   | 360,000       | --            | 217,000       | 186,000       | 152,000       | 442,000       | --            | 398,000       | 367,000       | 365,000       | 175,000       | --            | --           | 168,000       | 172,000       | 138,000       |
| Chromium                                  | 50 U          | --            | 1.7 B         | 2.0 B         | 2.7 B         | 50 U          | --            | 4.2 B         | 1.9 B         | 2.6 B         | 50 U          | --            | --           | 3.2 B         | 5.4           | 2.4 B         |
| Cobalt                                    | 50 U          | --            | 1.7 B         | 7.5 B         | 9.3 B         | 50 U          | --            | 4.3 B         | 4.6 B         | 5.0 B         | 50 U          | --            | --           | 40 U          | 4.9 B         | 2.6 B         |
| Copper                                    | 25 U          | --            | 25 U          | 25 U          | 25 U          | 25 U          | --            | 25 U          | 25 U          | 25 U          | 25 U          | --            | --           | 25 U          | 25 U          | 25 U          |
| Iron                                      | 24,500        | --            | 20,100        | 19,400        | 14,900        | 31,900        | --            | 22,000        | 20,400        | 22,900        | 7,120         | 30,000 J      | --           | 18,500 J      | 16,000        | 14,200        |
| Lead                                      | 3.0 U         | --            | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | --            | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | --           | 3.0 U         | 3.0 U         | 3.0 U         |
| Magnesium                                 | 115,000       | --            | 54,600        | 61,500        | 68,300        | 170,000       | --            | 145,000       | 136,000       | 138,000       | 110,000       | 102,000       | --           | 111,000       | 106,000       | 80,600        |
| Manganese                                 | 918           | --            | 2,170         | 1,520         | 828           | 437           | --            | 339           | 377           | 342           | 666           | 1,210 J       | --           | 835           | 703           | 646           |
| Mercury                                   | 0.20 U        | --            | 0.20 U        | 0.20 UJ       | 0.20 UJ       | 0.20 U        | --            | 0.20 U        | 0.20 UJ       | 0.20 UJ       | 0.20 UJ       | --            | --           | 0.20 U        | 0.20 UJ       | 0.20 UJ       |
| Nickel                                    | 50 U          | --            | 14.5 B        | 25.8 B        | 32 B          | 50 U          | --            | 25.6 B        | 24 B          | 19 B          | 50 U          | 50 U          | --           | 17.2 B        | 28.1 B        | 19 B          |
| Potassium                                 | 5,420         | --            | 33,900        | 63,900 J      | 89,200 J      | 5,000 U       | --            | 7,750         | 8,760 J       | 5,900 J       | 235,000       | --            | --           | 163,000       | 192,000 J     | 118,000 J     |
| Selenium                                  | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | --           | 5.0 U         | 5.0 U         | 5.0 U         |
| Silver                                    | 0.50 U        | --            | 5.0 U         | 5.0 U         | 5.0 U         | 0.50 U        | --            | 5.0 U         | 5.0 U         | 5.0 U         | 0.50 U        | --            | --           | 5.0 U         | 5.0 U         | 5.0 U         |
| Sodium                                    | 720,000       | --            | 331,000       | 509,000       | 556,000       | 582,000       | --            | 515,000       | 528,000       | 498,000       | 580,000       | 389,000       | --           | 339,000       | 464,000       | 353,000       |
| Thallium                                  | 8.0 UJ*       | --            | 6.9 B         | 10 U          | 10 UJ         | 8.0 UJ*       | --            | 6.2 B         | 6.1 B         | 6.5 BJ        | 8.0 UJ*       | --            | --           | 10 U          | 5.7 B         | 7.3 BJ        |
| Vanadium                                  | 20 U          | --            | 50 U          | 50 U          | 50 U          | 20 U          | --            | 50 U          | 3.3 B         | 3.1 B         | 20 U          | --            | --           | 50 U          | 50 U          | 50 U          |
| Zinc                                      | 31            | --            | 20 U          | 20 U          | 20 U          | 24            | --            | 20 U          | 20 U          | 20 U          | 20 U          | 20 U          | --           | 20 U          | 20 U          | 20 U          |
| Cyanide, Total                            | 8.3           | --            | 5.0 U         | 5.0 U         | 2.1 B         | 8.8           | --            | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | --           | 4.5 B         | 4.8 B         | 3.5 B         |
| <b>Landfill Indicator Parameters</b>      |               |               |               |               |               |               |               |               |               |               |               |               |              |               |               |               |
| pH (Standard Units)                       | --            | --            | 7.2           | 7.9           | 8.0           | --            | --            | 6.7           | 7.7           | 7.6           | --            | --            | --           | 7.0           | 7.8           | 7.3           |
| Total Dissolved Solids (mg/L)             | --            | --            | 1,800         | 2,100         | 2,700         | --            | --            | 3,000         | 3,100         | 3,100         | --            | --            | --           | 2,300         | 2,100         | 2,000         |
| Chloride (mg/L)                           | --            | --            | 775 J         | 995           | 1,280         | --            | --            | 1,320 J       | 1,230         | 1,460         | --            | --            | --           | 505           | 893           | 714 J         |
| Sulfate (mg/L)                            | --            | 5.0 U         | 101           | 105           | 59.2          | --            | 5.0 U         | 3.8 BG        | 5.0           | 3.0           | --            | 5.0 U         | 5.0 U        | 528           | 5.1           | 0.18 B        |
| Nitrate (as N) (mg/L)                     | --            | 0.14          | 2.5 UG        | 0.50 U        | 0.50 U        | --            | 0.08 U        | 5.0 UG        | 0.50 U        | 0.50 U        | --            | 0.08 U        | 0.08 U       | 2.5 U         | 0.50 U        | 0.50 U        |
| Nitrite (as N) (mg/L)                     | --            | 0.07 U        | 2.5 UG        | R             | 10 U          | --            | 0.07 U        | 5.0 UG        | R             | 10 U          | --            | 0.07 U        | 0.07 U       | 2.5 U         | R             | 10 U          |
| Nitrogen, Ammonia (mg/L)                  | --            | --            | 13            | 66            | 97            | --            | --            | 3.3           | 7.4           | 7.2           | --            | --            | --           | 160           | 210           | 94            |

See Notes, Page 6.

TABLE 5

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | X-1B          |               |              |               |               |               | X-1CR2        |               | X-2A          |               |               |                | X-10A         |               |
|-------------------------------------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
|                                           | 7/29/95<br>FS | 6/10/96<br>FS | 3/9/97<br>FS | 5/24/00<br>FS | 6/20/01<br>FS | 6/25/02<br>FS | 6/26/02<br>FS | 7/15/95<br>FS | 5/19/00<br>FS | 6/18/01<br>FS | 6/26/02<br>FS | 6/26/02<br>DUP | 6/13/96<br>FS | 5/24/00<br>FS |
| <b>TAL Inorganics (ug/L)</b>              |               |               |              |               |               |               |               |               |               |               |               |                |               |               |
| Aluminum                                  | 100 U         | 118 U         | --           | 100 U         | 100 U         | 100 U         | 100 U         | 111           | 100 U         | 100 U         | 100 U         | --             | 100 U         | 100 U         |
| Antimony                                  | 5.0 U         | 5.0 U         | --           | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --             | 5.0 U         | 5.0 U         |
| Arsenic                                   | 3.1           | --            | --           | 10 U          | 4.3 B         | 3.5 B         | 3.7 B         | 1.0 U         | 3.4 B         | 10 U          | 2.2 B         | --             | 5.0 U         | 10 U          |
| Barium                                    | 887           | 870           | --           | 770           | 644           | 706           | 34 B          | 365           | 410           | 432           | 358           | --             | 200 U         | 44.4 B        |
| Beryllium                                 | 5.0 U         | --            | --           | 4.0 U         | 4.0 U         | 4.0 U         | 4.0 U         | 5.0 U         | 4.0 U         | 4.0 U         | 4.0 U         | --             | 5.0 U         | 4.0 U         |
| Cadmium                                   | 0.38 J        | --            | --           | 1.0 U         | 1.0 U         | 1.0 U         | 1.0 U         | 0.20 U        | 1.0 U         | 1.0 U         | 1.0 U         | --             | 0.50 U        | 1.0 U         |
| Calcium                                   | 371,000       | --            | --           | 380,000       | 352,000       | 357,000       | 68,100        | 76,400        | 98,200        | 103,000       | 83,800        | --             | 117,000       | 209,000       |
| Chromium                                  | 50 U          | --            | --           | 3.8 B         | 2.2 B         | 3.1 B         | 5.0 U         | 50 U          | 5.0 U         | 5.0 U         | 5.0 U         | --             | 50 U          | 5.0 U         |
| Cobalt                                    | 50 U          | --            | --           | 6.1 B         | 6.5 B         | 5.6 B         | 40 U          | 50 U          | 40 U          | 1.3 B         | 0.83 B        | --             | 50 U          | 40 U          |
| Copper                                    | 25 U          | --            | --           | 25 U          | 25 U          | 25 U          | 25 U          | 25 U          | 25 U          | 25 U          | 25 U          | --             | 25 U          | 25 U          |
| Iron                                      | 22,900        | 21,200 J      | --           | 22,100 J      | 22,400        | 20,300        | 100 U         | 254 J         | 429           | 606           | 577           | --             | 100 UJ        | 100 UJ        |
| Lead                                      | 3.0 U         | 3.0 U         | --           | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | --             | 3.0 U         | 3.0 U         |
| Magnesium                                 | 124,000       | 121,000       | --           | 118,000       | 116,000       | 113,000       | 33,300        | 23,300        | 40,400        | 43,500        | 34,600        | --             | 22,400        | 48,700        |
| Manganese                                 | 1,030         | 838 J         | --           | 795           | 935           | 842           | 74            | 517           | 569           | 625           | 518           | --             | 22.5          | 152           |
| Mercury                                   | 0.20 UJ       | --            | --           | 0.20 U        | 0.20 UJ       | 0.20 UJ       | 0.20 UJ       | 0.20 U        | 0.20 U        | 0.20 UJ       | 0.20 UJ       | --             | 0.20 U        | 0.20 U        |
| Nickel                                    | 50 U          | 50 U          | --           | 29.6 B        | 32.4          | 30 B          | 40 U          | 50 U          | 13.4 B        | 10.8 B        | 9.4 B         | --             | 50 U          | 40 U          |
| Potassium                                 | 53,700        | --            | --           | 40,500        | 37,800 J      | 34,700 J      | 3,310 BJ      | 19,900        | 33,500        | 35,500 J      | 33,300 J      | --             | 9,450         | 8,910         |
| Selenium                                  | 5.0 U         | --            | --           | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --             | 5.0 U         | 5.0 U         |
| Silver                                    | 0.50 U        | --            | --           | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 0.50 U        | 5.0 U         | 5.0 U         | 5.0 U         | --             | 0.50 UJ       | 5.0 U         |
| Sodium                                    | 758,000       | 831,000       | --           | 858,000       | 793,000       | 777,000       | 125,000       | 275,000       | 378,000       | 429,000       | 426,000       | --             | 24,000        | 33,700        |
| Thallium                                  | 4.0 UJ*       | --            | --           | 6.6 B         | 6.4 B         | 8.2 BJ        | 10 UJ         | 2.0 UJ        | 5.3 B         | 5.9 B         | 10 UJ         | --             | 2.0 UJ        | 7.1 B         |
| Vanadium                                  | 20 U          | --            | --           | 2.4 B         | 1.7 B         | 2.0 B         | 50 U          | 20 U          | 50 U          | 50 U          | 50 U          | --             | 20 U          | 50 U          |
| Zinc                                      | 143           | 42.5 U        | --           | 20 U          | 32.5          | 21            | 20 U          | R             | 54.6          | 12.7 B        | 20 U          | --             | 86.8 U        | 105           |
| Cyanide, Total                            | 9.1           | --            | --           | 5.5           | 5.0           | 4.7 B         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 3.0 B         | --             | 5.0 U         | 5.0 U         |
| <b>Landfill Indicator Parameters</b>      |               |               |              |               |               |               |               |               |               |               |               |                |               |               |
| pH (Standard Units)                       | --            | --            | --           | 6.6           | 7.4           | 6.9           | 8.0           | --            | 7.6           | 7.8           | 8.0           | 8.1            | --            | 7.0           |
| Total Dissolved Solids (mg/L)             | --            | --            | --           | 2,600         | 3,000         | 3,700         | 800           | --            | 1,800         | 1,900         | 2,000         | 2,000          | --            | 910           |
| Chloride (mg/L)                           | --            | --            | --           | 1,440         | 1,280         | 1,410 J       | 162           | --            | 884 J         | 982           | 1,060         | --             | --            | 58.7          |
| Sulfate (mg/L)                            | --            | 5.0 U         | 5.0 U        | 51.2          | 31.7          | 30.2          | 251           | --            | 24            | 1.0 U         | 0.42 B        | --             | --            | 430           |
| Nitrate (as N) (mg/L)                     | --            | 0.08 U        | 0.08 U       | 10 U          | 0.50 U        | 0.50 U        | 0.046 B       | --            | 2.5 UG        | 0.50 U        | 0.50 U        | --             | --            | 0.50 U        |
| Nitrite (as N) (mg/L)                     | --            | 0.07 U        | 0.07 U       | 10 U          | R             | 0.53 B        | 0.50 U        | --            | 2.5 UG        | R             | 0.50 U        | --             | --            | 0.50 U        |
| Nitrogen, Ammonia (mg/L)                  | --            | --            | --           | 24            | 59            | 31            | 0.6           | --            | 5.6           | 6.6           | 7.8           | --             | --            | 0.20 U        |

See Notes, Page 6.

TABLE 5

## TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

| Location ID<br>Sample Date<br>Sample Type | X-10AR2        |                 |               | X-16A         |               |               |               | X-16B         |               |               |               |               |                |
|-------------------------------------------|----------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
|                                           | 11/27/01<br>FS | 11/27/01<br>DUP | 6/26/02<br>FS | 7/27/95<br>FS | 5/24/00<br>FS | 6/19/01<br>FS | 6/25/02<br>FS | 7/28/95<br>FS | 5/19/00<br>FS | 6/20/01<br>FS | 6/26/02<br>FS | 6/27/02<br>FS | 6/27/02<br>DUP |
| <b>TAL Inorganics (ug/L)</b>              |                |                 |               |               |               |               |               |               |               |               |               |               |                |
| Aluminum                                  | 100 U          | 100 U           | 100 U         | 1,110         | 100 U         | 100 U         | 100 U         | --            | 122           | 100 U         | 100 U         | --            | --             |
| Antimony                                  | 5.0 U          | 5.0 U           | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | --            | --             |
| Arsenic                                   | 10 U           | 10 U            | 2.2 B         | 1.0 U         | 10 U          | 10 U          | 10 U          | --            | 10 U          | 10 U          | 2.5 B         | --            | --             |
| Barium                                    | 62 B           | 57 B            | 51 B          | 200 U         | 216           | 225           | 227           | --            | 35.7 B        | 58.7 B        | 28 B          | --            | --             |
| Beryllium                                 | 4.0 U          | 4.0 U           | 4.0 U         | 5.0 U         | 4.0 U         | 4.0 U         | 4.0 U         | --            | 4.0 U         | 4.0 U         | 4.0 U         | --            | --             |
| Cadmium                                   | 1.0 U          | 1.0 U           | 1.0 U         | 0.35 J        | 1.0 U         | 1.0 U         | 1.0 U         | --            | 0.59 B        | 1.0 U         | 1.0 U         | --            | --             |
| Calcium                                   | 248,000        | 241,000         | 202,000       | 362,000       | 397,000       | 377,000       | 373,000       | --            | 84,700        | 136,000       | 76,100        | --            | --             |
| Chromium                                  | 5.0 U          | 5.0 U           | 5.0 U         | 50 U          | 1.5 B         | 5.0 U         | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | --            | --             |
| Cobalt                                    | 10 U           | 10 U            | 40 U          | 50 U          | 40 U          | 40 U          | 40 U          | --            | 40 U          | 40 U          | 40 U          | --            | --             |
| Copper                                    | 25 U           | 25 U            | 25 U          | 25 U          | 25 U          | 25 U          | 25 U          | --            | 25 U          | 25 U          | 25 U          | --            | --             |
| Iron                                      | 4,740 J        | 1,080 J         | 15,600        | 4,370         | 6,850 J       | 9,020         | 8,800         | --            | 100 U         | 100 U         | 100 U         | --            | --             |
| Lead                                      | 3.0 U          | 3.0 U           | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | 3.0 U         | --            | 3.0 U         | 3.0 U         | 3.0 U         | --            | --             |
| Magnesium                                 | 74,900 J       | 73,100 J        | 55,700        | 126,000       | 136,000       | 136,000       | 133,000       | --            | 60,100        | 61,500        | 51,200        | --            | --             |
| Manganese                                 | 2,810          | 2,710           | 2,630         | 807           | 966           | 964           | 1,050         | --            | 84.5          | 40.4          | 135           | --            | --             |
| Mercury                                   | 0.20 U         | 0.20 U          | 0.20 UJ       | 0.20 U        | 0.20 U        | 0.20 UJ       | 0.20 UJ       | --            | 0.20 U        | 0.20 UJ       | 0.20 UJ       | --            | --             |
| Nickel                                    | 40 U           | 40 U            | 40 U          | 50 U          | 9.5 B         | 40 U          | 40 U          | --            | 23.8 B        | 3.7 B         | 40 U          | --            | --             |
| Potassium                                 | 14,200         | 13,700          | 12,000 J      | 5,000 U       | 1,920 B       | 1,530 BJ      | 1,790 BJ      | --            | 2,620 B       | 2,450 BJ      | 2,540 BJ      | --            | --             |
| Selenium                                  | 5.0 U          | 5.0 U           | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | --            | --             |
| Silver                                    | 5.0 U          | 5.0 U           | 5.0 U         | 0.50 U        | 5.0 U         | 5.0 U         | 5.0 U         | --            | 5.0 U         | 5.0 U         | 5.0 U         | --            | --             |
| Sodium                                    | 67,900         | 66,100          | 48,300        | 86,200        | 124,000       | 124,000       | 119,000       | --            | 91,000        | 99,400        | 80,200        | --            | --             |
| Thallium                                  | 10 U           | 10 U            | 5.8 BJ        | 2.0 UJ        | 7.6 B         | 6.6 B         | 5.6 BJ        | --            | 3.9 B         | 10 U          | 10 UJ         | --            | --             |
| Vanadium                                  | 20 U           | 20 U            | 50 U          | 20 U          | 50 U          | 50 U          | 50 U          | --            | 50 U          | 50 U          | 50 U          | --            | --             |
| Zinc                                      | 17 B           | 20 U            | 18 B          | 50            | 20 U          | 20 U          | 20 U          | --            | 14.5 B        | 24.4          | 28            | --            | --             |
| Cyanide, Total                            | 5.0 U          | 5.0 U           | 5.0 U         | 5.0 U         | 5.0 U         | 5.8           | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | 5.0 U         | --            | --             |
| <b>Landfill Indicator Parameters</b>      |                |                 |               |               |               |               |               |               |               |               |               |               |                |
| pH (Standard Units)                       | 8.1            | --              | 7.9           | --            | 6.7           | 7.9           | 7.3           | --            | 7.9           | 7.9           | --            | 7.5           | --             |
| Total Dissolved Solids (mg/L)             | 1,300          | 1,300           | 1,100         | --            | 1,900         | 1,900         | 2,100         | --            | 670           | 920           | --            | 660           | 670            |
| Chloride (mg/L)                           | 47.1           | --              | 20.9          | --            | 420           | 428           | 462J          | --            | 90.6 J        | 265           | --            | 56.2          | --             |
| Sulfate (mg/L)                            | 638            | --              | 492           | --            | 601           | 602           | 568           | --            | 229           | 192           | --            | 216           | --             |
| Nitrate (as N) (mg/L)                     | 0.10 UJ        | --              | 0.50 U        | --            | 5.0 U         | 0.50 U        | 0.50 U        | --            | 0.16 BG       | 0.17 B        | --            | 0.50 U        | --             |
| Nitrite (as N) (mg/L)                     | 0.10 UJ        | --              | 0.50 U        | --            | 5.0 U         | R             | 0.50 U        | --            | 1.0 UG        | R             | --            | 0.50 U        | --             |
| Nitrogen, Ammonia (mg/L)                  | 1.7            | --              | 1.1           | --            | 0.40          | 0.8           | 0.7           | --            | 0.20 U        | 19            | --            | 0.20 U        | --             |

See Notes, Page 6.

TABLE 5

TAL INORGANIC CONSTITUENTS AND INDICATOR PARAMETERS, GROUNDWATER ANALYTICAL DATA

REALM, INC. GREEN POINT LANDFILL  
SAGINAW, MICHIGAN  
ENVIRONMENTAL MONITORING PROGRAM

General Notes:

All concentrations in micrograms per liter ( $\mu\text{g/L}$ ); equivalent to parts per billion (ppb), unless otherwise noted.  
-- = Sample was not analyzed for the listed constituent.

Location ID:

MW, X = Permanent monitoring wells.

WT = Water table monitoring wells.

S1 = Well screened at top of sand unit; increasing numbers indicate increased depth within the sand unit (e.g., S2, S3, S4).

Sample Type:

FS = Primary field sample, collected by BBL.

DUP = Duplicate field sample, collected by BBL.

Data Qualifiers:

B = (Inorganic) The analyte has been positively identified. The concentration is between the instrument detection limit and the required reporting limit.

G = 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.

R = The sample results were rejected.

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 limit of quantitation.

\* = Duplicate analysis not within control limits.

## ***Attachment A***

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TABLE 10-1

REVISED

**SCHEDULE FOR GREEN POINT LANDFILL CLOSURE  
AND SUBMITTAL OF MAJOR DELIVERABLES TO THE MDEQ**

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

| <b>Deliverable</b>                                                                                      | <b>Submittal and Completion Schedule ***</b>                                                                                                                        |
|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Monthly Reports                                                                                      | Within 15 days of end of month for which report has been prepared; starting from end of first month following entry of Consent Judgment. <b>[Ongoing]</b>           |
| 2. Work Plan to Complete Supplemental Phase II Investigation at Former Tank #7                          | Work Plan was transmitted on February 9, 1996. <b>[COMPLETED]</b>                                                                                                   |
| 3. Draft RI Report                                                                                      | Report was submitted to MDEQ on January 21, 1999. <b>[COMPLETED]</b>                                                                                                |
| 4. Final RI Report                                                                                      | Within 120 days of receiving comments from MDEQ on Draft RI Report. <b>[COMPLETED]</b>                                                                              |
| 5. Draft FS Report                                                                                      | Report was submitted to MDEQ on January 3, 2002. <b>[COMPLETED]</b>                                                                                                 |
| 6. Final FS Report                                                                                      | Within 90 days of receiving comments from MDEQ on Draft FS Report. <b>[Revised Due Date of January 30, 2003]</b>                                                    |
| 7. Green Point Landfill Combined Conceptual Engineering and 35% Design Report (including Subgrade Plan) | Report was submitted to MDEQ on February 5, 1996. <b>[COMPLETED]</b>                                                                                                |
| 8. Green Point Landfill 90% Design Report                                                               | Report was submitted to MDEQ on October 28, 1997. <b>[COMPLETED]</b>                                                                                                |
| 9. Green Point Landfill Final Design Report                                                             | Report was submitted to MDEQ in January 1998. <b>[COMPLETED]</b>                                                                                                    |
| 10. Green Point Landfill Subgrade Construction                                                          | Subgrade construction was completed in July 1997. <b>[COMPLETED]</b>                                                                                                |
| 11. Green Point Landfill Cap Construction **                                                            | Cap construction was completed January 26, 2000. <b>[COMPLETED]</b>                                                                                                 |
| 12. Green Point Landfill "As-Built" Drawings                                                            | Green Point Landfill "As-Built" drawings were transmitted to the MDEQ on January 26, 2000 as part of the Final Cover System Certification Report <b>[COMPLETED]</b> |
| 13. Draft RAP                                                                                           | Within 7 months of MDEQ approval of Final FS Report.                                                                                                                |
| 14. Final RAP                                                                                           | Within 120 days of receiving comments from MDEQ on Draft RAP.                                                                                                       |

**Notes:**

\*\* Landfill cap construction consists of all remedial activities required in the final design for the landfill.

\*\*\* Transmittal dates refer to the dates that deliverables were sent out from preparers, and do not indicate the dates that deliverables were received by the MDEQ.

TABLE 10-2

REVISED

## SCHEDULE FOR SUBMITTAL OF OTHER DELIVERABLES TO THE MDEQ

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

| Deliverable <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                  | RI/FS Work Plan Section    | Submittal and Completion Schedule <sup>2</sup>                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------|
| 1. Plan to determine representative background concentrations in groundwater of hazardous substances of interest.                                                                                                                                                                                                                                                                                         | Section 1.3                | Plan was transmitted to the MDEQ on April 17, 1996. [COMPLETED]                                                     |
| 2. Sewer Map                                                                                                                                                                                                                                                                                                                                                                                              | Section 7.6                | The site sewer map was transmitted to the MDEQ on February 17, 1995. [COMPLETED]                                    |
| 3. Buried Utility Maps <sup>2</sup> (including updated sewer map and invert elevations of key manholes).                                                                                                                                                                                                                                                                                                  | Section 7.4                | The buried utility maps were transmitted to the MDEQ on September 4, 1998. [COMPLETED]                              |
| 4. Analytical Monitoring Plan for SMI Sewer System. This plan will be based on the buried utility maps and analytical results of POTW monitoring program and other sewer samples.                                                                                                                                                                                                                         | Section 7.6                | Plan was transmitted to the MDEQ by CRA on February 3, 1997. [COMPLETED]                                            |
| 5. Report presenting the results of the Perimeter Geophysical Survey.                                                                                                                                                                                                                                                                                                                                     | Section 7.1                | Report was transmitted to the MDEQ on June 23, 1995. [COMPLETED]                                                    |
| 6. Letter Report summarizing results of temporary monitoring well sampling around perimeter of SMI Plant building and site, and recommendations, if appropriate, for the installation of permanent monitoring wells.                                                                                                                                                                                      | Section 7.2.1              | Letter report was transmitted to the MDEQ on August 30, 1995. [COMPLETED]                                           |
| 7. Transmittal of summary tables of analytical data collected during six-month POTW Sampling Program to the MDEQ.                                                                                                                                                                                                                                                                                         | Section 7.6                | Data summary tables were transmitted to the MDEQ on August 1, 1996. [COMPLETED]                                     |
| 8. Transmittal of historical analytical data for POTW point of compliance (CFD-02) discharge.                                                                                                                                                                                                                                                                                                             | Section 7.6                | Data summary report was transmitted to the MDEQ on December 29, 1996. [COMPLETED]                                   |
| 9. Report summarizing analytical results of first round of groundwater sampling. The report will propose to the MDEQ a list of site-specific constituents for future groundwater sampling activities, and will present recommendations for additional well installation, if needed, to further investigate on-site sources, the site perimeter, or off-site areas.                                        | Sections 7.2.4 and 7.2.4.3 | Report was transmitted to the MDEQ on January 22, 1996. [COMPLETED]                                                 |
| 10. Letter Report presenting analytical results of surface soil sampling. Recommendations for additional surface soil sampling to assess potential worker exposure will also be made, if appropriate.                                                                                                                                                                                                     | Section 7.5.4              | Letter report was transmitted to the MDEQ on March 8, 1996. [COMPLETED]                                             |
| 11. Report presenting the results of the geophysical borehole logging task and recommendations for additional borings, if needed, to understand discrepancies between the geophysical data and boring logs.                                                                                                                                                                                               | Section 7.2.5              | Report was transmitted to the MDEQ on January 19, 1996. [COMPLETED]                                                 |
| 12. Transmittal of Quarterly Water Level Data.                                                                                                                                                                                                                                                                                                                                                            | Section 7.2.8              | Transmitted to the MDEQ within the RI Report on January 21, 1999. [COMPLETED]                                       |
| 13. Letter Report evaluating whether buried utilities (or bedding material) may be serving as preferential pathway(s) for groundwater migration.<br><br>Report must include maps of buried utilities with an indication of where utilities or bedding materials lie below the water table.<br><br>Recommendations, if appropriate, for additional borings/monitoring wells need to be included in report. | Section 7.4                | The buried utility evaluation map and summary letter were transmitted to the MDEQ on September 4, 1998. [COMPLETED] |
| 14. Notification of MDEQ and Preparation of a Work Plan <sup>1</sup> , if needed, to address any discovered point source discharge to the Saginaw River originating on GM Property.                                                                                                                                                                                                                       | Section 7.4                | Notification of MDEQ within 7 days of discovery, Work Plan due 30 days from date of discovery. [COMPLETED]          |
| 15. Report presenting results of Drum Remediation Area Test Pit Investigation.                                                                                                                                                                                                                                                                                                                            | Section 5.1                | Report was transmitted to the MDEQ on August 31, 1995. [COMPLETED]                                                  |

TABLE 10-2

REVISED

## SCHEDULE FOR SUBMITTAL OF OTHER DELIVERABLES TO THE MDEQ

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

| Deliverable <sup>1</sup>                                                                                                                                                                                                            | RI/FS Work Plan Section | Submittal and Completion Schedule <sup>3</sup>                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16. <b>Soil Investigation Work Plan<sup>1</sup></b> for Drum Remediation Area, if needed, following completion of Test Pit Investigation.                                                                                           | Section 7.5.2           | A Sampling and Analysis Plan to allow consolidation of DRA hillock soils with the Green Point Landfill subgrade, dated August 20, 1996, was transmitted to the MDEQ. Excavation and relocation activities were completed during February 1997. <b>[COMPLETED]</b>                                   |
| 17. <b>Report</b> on the Previous Metal Feedstock Area, based on results of soil sampling and downgradient monitoring well groundwater results, including a work plan, if needed, to <u>install monitoring wells in this area</u> . | Section 7.5.3           | Letter report dated August 9, 1996 was transmitted to the MDEQ. <b>[COMPLETED]</b>                                                                                                                                                                                                                  |
| 18. <b>Plan</b> to further investigate groundwater quality north of the Drum Remediation Area.                                                                                                                                      | NA                      | The initial investigation plan was submitted to the MDEQ on January 5, 1998. A supplemental plan was submitted to the MDEQ on May 13, 1999. A letter report was transmitted to the MDEQ on December 9, 1999. Additional investigation activities were conducted in October 2000. <b>[COMPLETED]</b> |
| 19. <b>Letter report</b> presenting the results of supplemental surface soil sampling in the Railyard and the Unpaved Area, and recommendations for additional activities, as appropriate.                                          | NA                      | The letter report was transmitted to the MDEQ on April 14, 1998. <b>[COMPLETED]</b>                                                                                                                                                                                                                 |
| 20. <b>Plan</b> to collect additional soil, surface water, and sediment samples for ecological characterization.                                                                                                                    | NA                      | The initial investigation plan was submitted to the MDEQ on July 17, 2000. Field activities were completed in August 2000, and incorporated into the final RI Report. <b>[COMPLETED]</b>                                                                                                            |

**Notes:**

- <sup>1</sup> The requirements for certain plans are contingent upon factors specified in the RI/FS Work Plan.
- <sup>2</sup> Buried utilities include buried sewer (current and abandoned), electrical, water, natural gas, fire protection lines, and tunnels.
- <sup>3</sup> Transmittal dates refer to the dates that deliverables were sent out from preparers, and do not indicate the date that deliverables were received by the MDEQ.