



**CONESTOGA-ROVERS
& ASSOCIATES**

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November 30, 2011

Ms. Sue Kaelber-Matlock
Michigan Department of Environmental Quality
Remediation Division
Saginaw Bay District Office
401 Ketchum Street, Suite B
Bay City, Michigan 48708

Dear Ms. Kaelber-Matlock:

Re: 2011 Annual Technical Progress Report Submittal
RACER Trust Bay City Property

Enclosed is the 2011 Annual Technical Progress Report (Annual Report) for the Revitalizing Auto Communities Environmental Response Trust (RACER) property located in Bay City, Michigan.

As recommended in the November 30, 2010 Report, the requirements have been reduced to annual reporting starting in 2011, following the larger annual sampling event conducted in August 2011.

As part of a July 2009 363 sale under Chapter 11 of the United States bankruptcy code, General Motors Corporation sold a substantial portion of its assets to a new company named General Motors Company (now known as General Motors LLC (GM LLC)). Those assets sold to GM LLC included property with an operating manufacturing facility now known as Bay City Castings, Transmissions, Engines, and Components (CTEC). The CTEC facility property is adjacent to property formerly owned by REALM, a subsidiary of General Motors Corporation, which changed its name to Motors Liquidation Company (MLC) at the time of the asset sale. As of March 31, 2011 the former REALM property including the former Machine Storage Area and Crotty Street Channel became the responsibility of RACER (RACER Property or Site) and the former Undeveloped Area (owned by the City of Bay City but part of the draft RAP and O&M Plan). This report presents data collected by RACER for the Undeveloped Area, however future monitoring of this area will be evaluated by RACER.

This Annual Report covers the RACER Property for the time period from November 16, 2010 through November 15, 2011, unless otherwise noted in the report. Included as part of this submittal, as applicable, are descriptions of actions related to the implementation of the Feasibility Study/Remedial Action Plan (FS/RAP), Interim Response Actions including End-Of Pipe Treatment and Recirculation Implementation, and Operation, Maintenance, and Monitoring activities. This annual report summarizes activities related to these action plans, outlines project status, and details any difficulties encountered during the implementation of the action plans.



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1.0 SUMMARY OF ON-GOING ACTIVITIES AND PROJECT STATUS

The following sections summarize the activities performed related to implementation of the RAP and Interim Response Actions and details any difficulties encountered during the implementation of the action plans.

1.1 REMEDIAL ACTION PLAN

RACER is currently implementing RAP operation and maintenance activities for the former Machine Storage Area, Crotty Street Channel, and former Undeveloped Area.

Due to a property subdivision process resulting from the 363 sale. RACER is exploring alternative options for the treatment of groundwater and storm water from the extraction system. In late July to early August, 2011 groundwater and storm water samples were collected in order to characterize the water on Site and evaluate options. Additionally, flow monitoring was performed to gain a thorough understanding of the quantity of water generated by the extraction system.

Currently, alternative treatment methods are being explored, in order to determine the best approach to the treatment of Site water without utilizing the BCPT treatment facility.

The groundwater characterization results were transmitted to MDEQ on September 27, 2011.

1.1.1 OPERATION AND MAINTENANCE ACTIVITIES

An initial Operation, Maintenance, and Monitoring Plan (O&M Plan) was submitted in November 2000 to MDEQ. Revised O&M Plan sections were submitted to MDEQ in June 2001, conditionally approved by MDEQ on November 27, 2001, and the final O&M Plan was submitted in January 2002 and subsequently approved by MDEQ. Pursuant to this plan, O&M activities are being conducted.

1.1.2 OPERATION AND MAINTENANCE ACTIVITIES - GROUNDWATER EXTRACTION SYSTEM

Table 1 presents Saginaw River water levels measured during the monthly inspections, as well as the corresponding daily, weekly, and monthly river water level averages at the United States Geological Survey (USGS) station - 04157065 Saginaw River at Weadock Road at Essexville,



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Michigan. Extraction well details and water elevations are presented in Tables 2 and 3, respectively. Monthly maintenance activity checklists are presented in Attachment A.

Each of the groundwater extraction systems (CSC, MSA and Stormwater) were running continuously, during the 12-month period covered by this report.

Approximately 2 of the 10 pumps are cleaned on average each month. Pumps are removed from the well, disassembled, soaked in a mixture of residential grade CLR® Calcium Lime Rust Remover and water, reassembled, and stored for re-use. Pumps are replaced with spares to minimize down time. Two new pumps we purchased and installed in the spring of 2011.

1.1.3 SAGINAW RIVER LEVELS AT ESSEXVILLE, MICHIGAN

Saginaw River water levels have been recorded downstream from the RACER Property at Essexville by the National Oceanic and Atmospheric Administration (NOAA) since 1977. Due to the unavailability of the data from the NOAA website, data was obtained from USGS station (04157065 Saginaw River at Weadock Road at Essexville, MI) and used for water elevation data of the Saginaw River, as of November 1, 2005.

Based on the combined NOAA and USGS data from 1977 to October 31, 2011, the average Saginaw River water level at Essexville is 578.93 feet (ft) above mean sea level (AMSL). Recent water levels continue to be below the average, as the current daily average water level at Essexville measured on October 25, 2011 was 577.15 ft AMSL.

1.1.4 GROUNDWATER MONITORING ACTIVITIES

Table 4 presents the sample results for the MSA and CSC extraction system discharge samples, as well as the sample collected from CB-2 for, 2011. The eleventh annual ground water sampling event (August 2011) was also conducted during this reporting period. Table 5 presents the August, 2011 Analytical Results Summary. As recommended in the November 2010 Semi-Annual Report the following locations were removed from the sampling plan: MW102D3, MW301D1, MW301D3, MW501D, MW503D (PCBs), MW503S, MW504S (Metals), MW506S, and CB-2. Figure 1 presents the locations sampled for chemical analysis. Figure 2 presents the location where groundwater and surface water elevations are monitored. Groundwater elevations are presented in Tables 2 and 3 for extraction wells and monitoring wells, respectively. Shallow groundwater contours were developed from water levels collected between August 22 and August 24, 2011 and are presented on Figure 3.



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A summary of the most recent 5 years of analytical groundwater data is presented in Attachment B and the laboratory data reports and data validation report for the April and August 2011 sampling rounds are presented in Attachment C and D, respectively.

1.2 INTERIM RESPONSE ACTIONS

No Interim response actions are proposed at this time.

2.0 PROPOSED MODIFICATIONS TO MONITORING PROGRAM

Eleven rounds of sampling have been completed to date as part of the long-term monitoring program. RACER proposes to remove monitoring wells/parameters from the program based on the following rationale: PCBs analysis can be dropped if there are 4 consecutive rounds of non-detect concentrations. The following monitoring well /parameters is proposed to be dropped from the program.

- MW301D4 (PCBs)

In addition, based on the sample results from the five monitoring wells (MW10S, MW501S, MW502D, MW503D, MW504S) in the undeveloped area, PCBs were not detected in any samples from 2011. Select metals (arsenic, barium, lead, and zinc) were reported marginally above residential drinking water criteria. The undeveloped area is owned by the City of Bay City. At this time RACER proposes terminating all monitoring activities in the undeveloped area.

Should RACER receive no response from the MDEQ before the next sampling event on the removal of the above monitoring wells, RACER will proceed with removing the monitoring wells from the program. Table 6 presents a summary of the revised monitoring program.

3.0 SCHEDULE

All activities have been completed within the required time frames.

As part of the 2012 monitoring program, RACER will continue perform monthly extraction system inspections and regular pump maintenance, as necessary. RACER will also continue to collect semi-annual CSA and MSA extraction system samples (to be completed in February and August, 2012). The 2012 annual groundwater monitoring event will be completed in August 2012.



**CONESTOGA-ROVERS
& ASSOCIATES**

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Should you have any questions on the above, please do not hesitate to contact us.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

A handwritten signature in black ink, appearing to read 'Michael R. Tomka', is written over the printed name and company name.

Michael R. Tomka, P.E.

Reference No. 012610

RC/kf/8

Encl.

cc: John Leone, Esq. - Assistant Attorney General
Robert Belleman, City of Bay City
Jennifer Wegener, MDEQ
Grant Trigger, RACER Trust
Dave Favero, RACER Trust

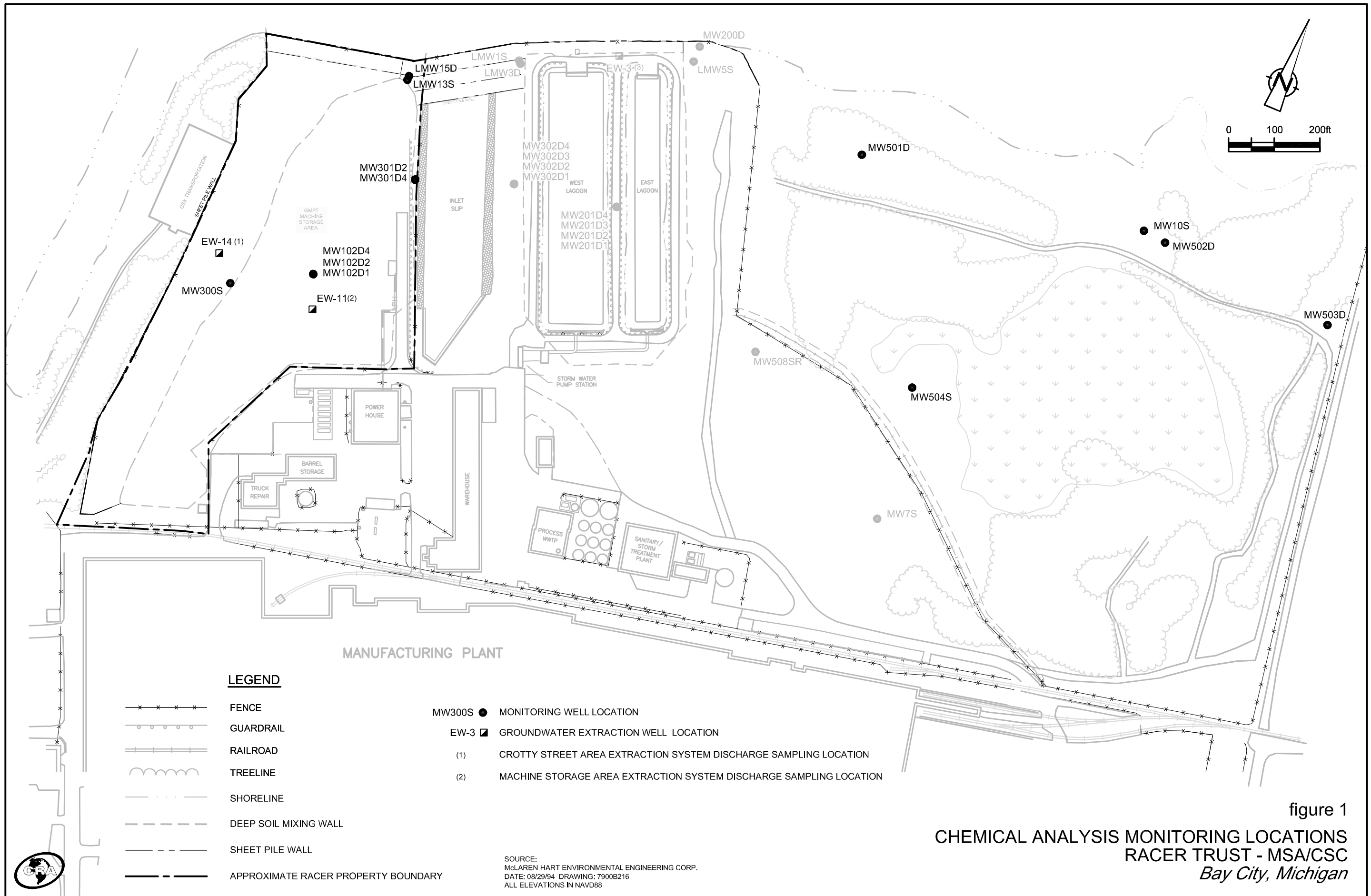
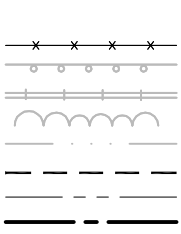
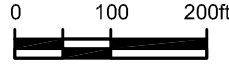
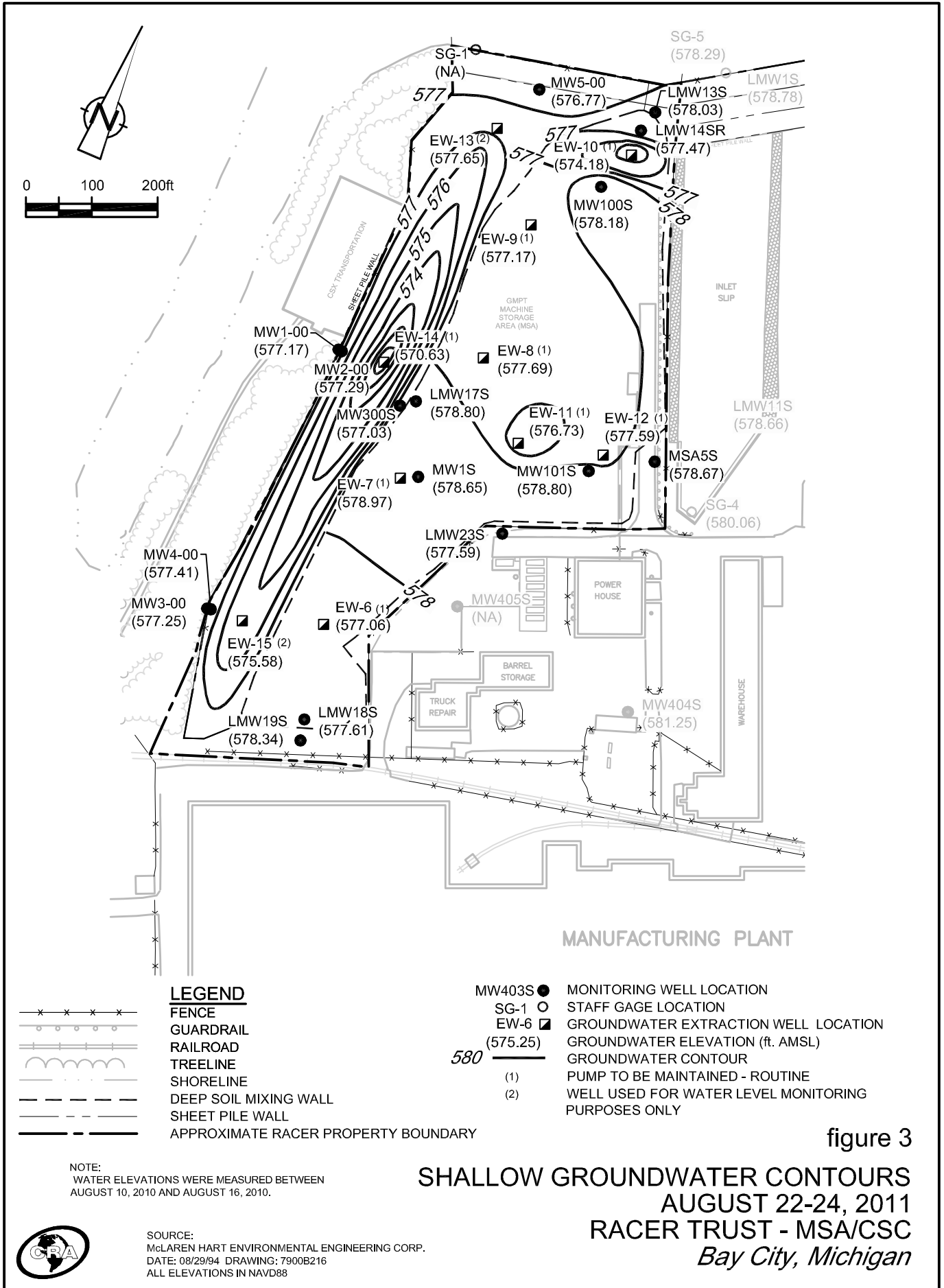


figure 1
CHEMICAL ANALYSIS MONITORING LOCATIONS
RACER TRUST - MSA/CSC
Bay City, Michigan



LEGEND

- FENCE
- GUARDRAIL
- RAILROAD
- TREELINE
- SHORELINE
- DEEP SOIL MIXING WALL
- SHEET PILE WALL
- APPROXIMATE RACER PROPERTY BOUNDARY

- MW403S ● MONITORING WELL LOCATION
- SG-1 ○ STAFF GAGE LOCATION
- EW-6 ▣ GROUNDWATER EXTRACTION WELL LOCATION
- (575.25) GROUNDWATER ELEVATION (ft. AMSL)
- 580 GROUNDWATER CONTOUR
- (1) PUMP TO BE MAINTAINED - ROUTINE
- (2) WELL USED FOR WATER LEVEL MONITORING PURPOSES ONLY

NOTE:
WATER ELEVATIONS WERE MEASURED BETWEEN
AUGUST 10, 2010 AND AUGUST 16, 2010.

SHALLOW GROUNDWATER CONTOURS
AUGUST 22-24, 2011
RACER TRUST - MSA/CSC
Bay City, Michigan



SOURCE:
McLAREN HART ENVIRONMENTAL ENGINEERING CORP.
DATE: 08/29/94 DRAWING: 7900B216
ALL ELEVATIONS IN NAVD88

TABLE 1

RIVER WATER LEVELS
 RACER TRUST - BAY CITY SITE
 BAY CITY, MICHIGAN

<i>Location</i>	<i>Nov-10</i>	<i>2-Dec-10</i>	<i>13-Jan-11</i>	<i>15-Feb-11</i>	<i>17-Mar-11</i>	<i>13-Apr-11</i>	<i>23-May-11</i>	<i>10-Jun-11</i>	<i>13-Jul-11</i>	<i>31-Aug-11</i>	<i>22-Sep-11</i>	<i>25-Oct-11</i>
<u>Crotty Street Channel Containment Area</u>												
SG-1 - Saginaw River	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
USGS Station - Essexville, MI												
<i>Daily Average Saginaw River at Essexville, MI</i>	577.78	577.56	577.37	577.31	577.13	577.35	577.02	577.69	578.02	577.55	577.13	577.15
<i>Weekly Average Water Level</i>	577.55	577.55	577.32	577.25	577.10	577.20	577.64	577.44	577.73	577.49	577.16	577.27
<i>Monthly Average Water Level</i>	577.69	577.43	577.28	577.29	577.26	577.24	577.46	577.51	577.67	577.62	577.41	577.29

Note:

Provisional USGS Data, Subject to Revision

(1) Staff Gage Replaced. To be Resurveyed in Winter of 2011

TABLE 2
GROUNDWATER EXTRACTION SYSTEM WATER ELEVATIONS
RACER TRUST - BAY CITY SITE
BAY CITY, MICHIGAN

Extraction Well	Reference Elevation (ft AMSL)	Bottom of Well Elevation (ft AMSL)	Top ICU (ft AMSL)	Water Elevation (ft AMSL) Nov., 2010 (1)	Water Elevation (ft AMSL) Dec. 2, 2010	Water Elevation (ft AMSL) Jan. 13, 2011	Water Elevation (ft AMSL) Feb. 15, 2011	Water Elevation (ft AMSL) March 17, 2011	Water Elevation (ft AMSL) April 13, 2011	Water Elevation (ft AMSL) May 23, 2011	Water Elevation (ft AMSL) June 10, 2011	Water Elevation (ft AMSL) July 13, 2011	Water Elevation (ft AMSL) Aug. 31, 2011	Water Elevation (ft AMSL) Sept. 22, 2011	Water Elevation (ft AMSL) Oct. 25, 2011
<i>Machine Storage Area</i>															
EW-6	589.74	570.39	572.39	NA	577.9	577.69	577.54	577.85	577.73	577.76	577.82	577.91	576.97	577.21	577.33
EW-7	587.99	571.14	571.64	NA	578.6	578.58	578.50	578.79	578.68	578.71	578.66	578.75	577.40	576.77	577.56
EW-8	588.34	572.29	573.29	NA	578.33	578.30	578.19	576.03	578.42	578.65	578.51	578.59	577.66	575.90	577.46
EW-9	588.04	572.19	573.69	NA	574.44	575.41	575.65	575.13	575.45	575.38	575.25	575.18	577.19	577.19	577.15
EW-10	587.77	570.82	572.32	NA	577.69	577.49	577.25	577.65	573.94	574.06	574.13	574.08	576.83	576.98	577.16
EW-11	591.51	571.91	572.56	NA	578.57	577.56	577.52	577.81	577.72	577.76	577.71	577.74	576.64	576.54	(2)
EW-12	586.42	571.57	573.07	NA	578.71	578.64	578.29	579.49	573.15	578.80	578.97	574.13	577.71	573.29	572.83
<i>Crotty Street Channel Containment Area</i>															
EW-13	584.33	571.86	NA	NA	575.60	575.62	575.83	576.14	575.61	577.17	575.64	575.63	575.64	575.64	576.62
EW-14	582.42	569.92	NA	NA	574.45	574.84	575.11	571.47	573.04	576.11	574.10	573.77	572.29	572.25	574.67
EW-15	583.71	571.61	NA	NA	575.60	575.58	575.68	575.92	575.63	576.89	575.62	575.60	575.59	575.60	576.27

Notes:

- (1) Key broke in lock for extraction well, not able to access any of the extraction wells to collect measurements
- (2) Interface probe not available

TABLE 3

**MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN**

Well Location	Top of Riser Elevation (ft AMSL)	Top of Riser Elevation (ft AMSL)	Depth of Well (feet)	Screen Length (feet)	Screen Type	Riser Type	Diameter of Screen (inches)	Groundwater Elevation (feet AMSL)				
								03/08/99	03/19/99	04/20/99	05/20/99	06/22/99
<u>Machine Storage Area (MSA)</u>												
LMW13S	590.02	589.4	19.22	10	SS	PVC	2	582.56	583.17	582.65	581.42	579.23
LMW17S	589.77	589.31	19.83	10	SS	PVC	2	581.58	581.57	580.25	579.77	579.65
LMW18S	591.24	592.33	22.52	10	SS	PVC	2	579.44	579.44	579.78	579.39	579.45
LMW19S	589.22	588.61	19.32	10	SS	PVC	2	580.66	580.90	580.94	580.51	580.52
MW1S	591.94	591.08	12.95	2	SS	SS	2	584.12	584.35	579.49	579.29	578.64
MW100S	590.03	591.97	14.44	10	SS	SS	2	582.71	582.53	579.96	579.30	579.07
MW101S	594.17	593.34	19.22	10	SS	SS	2	586.44	586.50	580.44	579.19	578.71
MW102D1	594.13	594.86	30.99	10	SS	SS	2	582.32	582.38	579.34	579.27	576.82
MW102D2	594.08	594.93	36.21	10	SS	SS	2	581.93	582.03	579.39	579.34	576.78
MW102D3	594.14	594.91	46.74	10	SS	SS	2	581.84	581.92	579.35	579.25	576.80
MW102D4 (replacement)	594.06	594.9	56.85	10	SS	SS	2	581.45	581.54	579.21	579.13	576.70
MW300S	587.71	587.12	15.06	10	SS	SS	2	579.51	579.37	579.86	579.51	579.95
LMW14SR (Replaced LMW14S Jan/00)	589.65	589.01	13.00	7	SS	SS	2	582.11	582.10	581.12	580.40	578.55
<u>Perimeter Banks (PB)</u>												
LMW15D	589.06	588.34	32..8	10	SS	PVC	2	579.71	579.86	579.23	579.21	577.88
MW301D1	590.15	589.54	27.50	10	SS	SS	2	579.29	579.40	579.32	579.22	575.75
MW301D2	589.77	589.16	37.24	10	SS	SS	2	579.23	579.35	579.28	579.19	576.11
MW301D3	589.83	589.22	44.04	10	SS	SS	2	579.23	579.38	579.25	579.18	576.13
MW301D4	589.92	589.33	55.95	10	SS	SS	2	579.18	579.37	579.26	579.17	576.08
<u>Support Facilities Area (SFA)</u>												
MSA5S	589.28	588.6	18.98			SS	2	580.54	580.33	580.83	579.71	577.24

TABLE 3

MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
 RACER TRUST, BAY CITY SITE
 BAY CITY, MICHIGAN

Well Location	Top of Riser	Top of Riser	Depth of	Screen	Screen	Riser	Diameter	Groundwater Elevation (feet AMSL)				
	Elevation (ft AMSL)	Elevation (ft AMSL)	Well (feet)	Length (feet)	Type	Type	of Screen (inches)	03/08/99	03/19/99	04/20/99	05/20/99	06/22/99
Undeveloped Area (UA)												
MW10S	589.85	589.17	12.19			PVC	2	583.01	583.05	580.56	580.45	580.00
MW501D	584.54	584.05	54.63	10	SS	SS	2	578.51	578.56	578.49	578.47	577.68
MW501S	584.39	583.62	14.86	10	SS	SS	2	579.80	579.79	579.91	579.72	579.25
MW502D	589.82	589.28	57.98	10	SS	SS	2	579.68	579.57	578.45	578.37	577.88
MW503D	588.94	588.54	56.60	10	SS	SS	2	578.60	578.45	578.49	578.39	578.02
MW503S	589.09	588.69	18.97	10	SS	SS	2	580.52	580.38	580.67	580.43	579.49
MW504S	586.2	585.54	14.33	10	SS	SS	2	581.51	581.65	n/a	579.70	579.39
MW506S	589.48	588.85	14.22	10	SS	SS	2	582.47	582.61	580.93	580.28	578.22
Gage 3	584.76	579.24	--	--	--	--	--	584.06	584.06	584.21	584.26	584.26
Croft Street Channel												
MW1-00	588.87	588.26	12.00	7	SS	SS	2	n/a	n/a	n/a	n/a	n/a
MW2-00	590.09	589.29	18.00	7	SS	SS	2	n/a	n/a	n/a	n/a	n/a
MW3-00	587.92	588.4	12.50	7	SS	SS	2	n/a	n/a	n/a	n/a	n/a
MW4-00	590.67	589.65	19.00	7	SS	SS	2	n/a	n/a	n/a	n/a	n/a
MW5-00	589.73	588.89	13.00	7	SS	SS	2	n/a	n/a	n/a	n/a	n/a
Gage 1	569.43	569.43	--	--	--	--	--	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
Saginaw River												
<u>NOAA/NOS Station - Essexville, MI</u> ⁽⁶⁾	--	--	--	--	--	--	--	578.34	578.55	578.32	578.37	578.51

Notes:

- (1) Approximate value
 - (2) Lock Needs Replacing
 - (3) Gage needs to be relocated
 - (4) Could not open due to liner attachment
 - (5) Could not read due to accumulation of snow and ice
 - (6) Water Level is taken from mean hourly data over a 24 hour period
- n/a Groundwater elevation not available

TABLE 3
MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN

<i>Well Location</i>	<i>Groundwater Elevation (feet AMSL)</i>										
	<i>07/20/99</i>	<i>09/07/99</i>	<i>09/27/99</i>	<i>10/25/99</i>	<i>11/24/99</i>	<i>1/4/00</i>	<i>2/2/00</i>	<i>2/28/00</i>	<i>3/29/00</i>	<i>4/26/00</i>	<i>5/30/00</i>
<u>Machine Storage Area (MSA)</u>											
LMW13S	579.68	580.02	580.55	581.26	580.68	580.08	579.27	581.74	581.27	581.81	581.63
LMW17S	579.43	579.19	578.98	579.69	579.71	579.47	579.08	579.96	579.91	580.19	580.06
LMW18S	579.57	577.89	577.51	577.62	577.32	577.37	577.09	577.80	577.66	578.09	578.10
LMW19S	580.42	580.01	579.53	579.95	579.58	580.30	579.70	581.39	580.73	581.25	580.96
MW1S	--	578.58	578.51	579.11	579.15	579.07	579.05	579.18	579.28	579.29	579.26
MW100S	579.33	--	578.57	578.77	578.09	577.49	577.09	576.69	576.87	577.07	577.79
MW101S	578.83	579.18	579.04	579.81	579.65	579.61	579.61	579.86	579.21	580.14	580.39
MW102D1	579.69	578.29	577.64	577.47	576.38	576.80	576.81	577.23	577.25	577.60	577.70
MW102D2	579.68	578.15	577.50	577.33	576.24	576.67	576.80	577.08	577.12	577.44	577.58
MW102D3	579.66	578.20	577.55	577.35	576.26	576.71	576.88	577.12	577.16	577.47	577.59
MW102D4 (replacement)	579.56	578.05	577.40	577.21	576.12	576.56	575.70	576.98	577.01	577.34	577.45
MW300S	579.69	579.33	578.90	578.87	579.91	579.27	578.55	No Access	579.73	580.18	579.89
LMW14SR (Replaced LMW14S Jan/00)	579.97	578.88	578.30	578.58	Damaged	Damaged	578.58	578.55	578.99	578.91	579.22
<u>Perimeter Banks (PB)</u>											
LMW15D	579.68	579.81	578.93	578.49	577.18	577.95	578.23	578.56	578.56	578.74	578.88
MW301D1	579.73	579.67	578.99	578.63	577.42	578.05	578.28	578.56	578.59	578.85	578.80
MW301D2	579.69	579.62	578.93	578.57	577.35	577.99	578.22	578.51	578.54	578.77	578.89
MW301D3	579.65	579.59	578.90	578.54	577.32	577.96	578.18	578.48	578.49	578.74	578.85
MW301D4	579.62	579.52	578.85	578.47	577.27	577.90	578.14	578.43	578.45	578.69	578.76
<u>Support Facilities Area (SFA)</u>											
MSA5S	579.38	581.84	581.74	581.77	581.70	581.42	580.96	582.13	580.62	582.37	582.22

TABLE 3
MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN

Well Location	Groundwater Elevation (feet AMSL)										
	07/20/99	09/07/99	09/27/99	10/25/99	11/24/99	1/4/00	2/2/00	2/28/00	3/29/00	4/26/00	5/30/00
<u>Undeveloped Area (UA)</u>											
MW10S	579.77	579.37	578.97	579.23	579.07	579.11	578.80	579.67	579.65	580.59	580.79
MW501D	578.74	578.52	577.88	577.68	576.42	577.18	577.26	577.62	577.44	577.87	577.99
MW501S	579.25	578.82	578.35	579.06	578.86	578.93	575.69	579.82	579.11	579.66	579.89
MW502D	578.60	578.36	577.75	577.59	576.43	577.09	577.14	577.58	577.43	577.87	577.97
MW503D	578.60	578.38	577.78	577.63	576.56	577.18	577.17	577.69	577.46	578.06	578.15
MW503S	579.15	578.64	578.39	578.85	578.66	579.00	578.77	580.38	579.91	580.76	581.37
MW504S	579.20	578.76	578.47	579.15	579.08	579.24	578.87	580.16	579.43	579.94	580.31
MW506S	579.00	578.48	578.24	578.85	578.59	578.79	578.59	580.07	579.73	580.55	581.12
Gage 3	584.26	Dry	Dry	Dry	Dry	Dry	Dry	584.16	584.16	584.06	583.76
<u>Crotty Street Channel</u>											
MW1-00	n/a	n/a	n/a	n/a	n/a	n/a	577.89	578.89	578.04	578.42	578.68
MW2-00	n/a	n/a	n/a	n/a	n/a	n/a	579.11	578.11	577.26	577.65	Not Accessible
MW3-00	n/a	n/a	n/a	n/a	n/a	n/a	578.27	579.25	578.40	578.79	579.05
MW4-00	n/a	n/a	n/a	n/a	n/a	n/a	577.03	578.03	577.18	577.60	Not Accessible
MW5-00	n/a	n/a	n/a	n/a	n/a	n/a	577.63	578.36	578.66	578.86	579.12
Gage 1	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
<u>Saginaw River</u>											
<u>NOAA/NOS Station - Essexville, MI</u> ⁽⁶⁾	578.87	578.59	578.04	577.35	576.54	577.15	577.14	577.24	577.37	577.42	577.48

Notes:

- (1) Approximate value
- (2) Lock Needs Replacing
- (3) Gage needs to be relocated
- (4) Could not open due to liner attachment
- (5) Could not read due to accumulation of snow and ice
- (6) Water Level is taken from mean hourly data over a 24 hour period
- n/a Groundwater elevation not available

TABLE 3
MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN

<i>Well Location</i>	<i>Groundwater Elevation (feet AMSL)</i>										
	<i>6/30/00</i>	<i>7/18/2000</i>	<i>8/29/2000</i>	<i>9/11/2000</i>	<i>10/31/2000</i>	<i>11/30/2000</i>	<i>12/15/2000</i>	<i>1/24/2001</i>	<i>2/23/2001</i>	<i>3/19/2001</i>	<i>8/13/2001</i>
<u>Machine Storage Area (MSA)</u>											
LMW13S	580.62	580.11	578.90	578.90	578.63	578.35	578.06	578.19	578.17	577.85	578.68
LMW17S	579.85	579.09	579.20	579.24	578.93	579.17	578.79	579.06	578.83	578.74	578.68
LMW18S	577.80	578.52	579.03	578.67	578.52	578.29	578.18	578.39	578.61	578.22	578.10
LMW19S	580.56	579.45	580.13	579.34	579.38	579.56	(5)	579.59	579.96	579.56	578.79
MW1S	579.31	578.34	578.38	578.43	578.57	578.40	578.36	578.44	(5)	578.41	578.51
MW100S	578.03	579.85	579.66	579.57	579.33	579.05	578.65	578.87	578.64	578.36	578.93
MW101S	580.22	579.02	579.04	578.99	578.91	579.03	578.84	579.18	578.96	578.84	578.76
MW102D1	577.62	578.71	578.15	578.16	577.87	577.67	577.62	577.47	577.40	577.61	578.18
MW102D2	577.48	578.67	578.13	578.13	577.85	577.65	577.61	577.45	577.39	577.60	578.15
MW102D3	577.52	578.63	578.09	578.08	577.80	577.60	577.56	577.40	577.34	577.56	578.11
MW102D4 (replacement)	577.38	578.55	578.02	578.00	577.73	577.53	577.47	577.33	577.27	577.49	578.03
MW300S	n/a (4)	n/a (2)	578.24	578.16	578.27	578.84	578.07	578.99	578.67	578.84	577.00
LMW14SR (Replaced LMW14S Jan/00)	579.32	579.19	578.21	578.16	578.13	578.04	577.54	577.88	577.77	577.38	578.23
<u>Perimeter Banks (PB)</u>											
LMW15D	n/a (4)	578.43	578.03	577.94	577.63	577.48	577.33	577.22	577.12	577.37	578.06
MW301D1	579.37	578.65	578.88	(5)	(5)	578.34	578.25	578.09	578.03	578.28	578.89
MW301D2	578.80	578.56	578.47	(5)	(5)	577.92	577.81	577.67	577.62	577.86	578.48
MW301D3	578.80	578.56	578.32	(5)	(5)	577.78	577.67	577.52	577.59	577.72	578.53
MW301D4	578.78	578.48	578.48	(5)	(5)	577.93	577.82	577.68	577.63	577.86	578.48
<u>Support Facilities Area (SFA)</u>											
MSA5S	581.17	581.32	580.41	580.56	580.34	580.65	580.46	580.62	580.42	580.65	579.74

TABLE 3

**MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN**

<i>Well Location</i>	<i>Groundwater Elevation (feet AMSL)</i>										
	<i>6/30/00</i>	<i>7/18/2000</i>	<i>8/29/2000</i>	<i>9/11/2000</i>	<i>10/31/2000</i>	<i>11/30/2000</i>	<i>12/15/2000</i>	<i>1/24/2001</i>	<i>2/23/2001</i>	<i>3/19/2001</i>	<i>8/13/2001</i>
<u>Undeveloped Area (UA)</u>											
MW10S	580.11	578.75	578.46	578.22	578.21	578.24	578.22	578.29	579.64	579.41	577.57
MW501D	577.82	577.88	577.35	577.30	576.91	576.70	576.60	576.48	576.50	576.78	577.25
MW501S	579.22	577.90	577.97	577.62	577.95	578.12	578.15	578.06	578.59	578.81	576.63
MW502D	577.96	577.49	577.24	577.11	576.82	576.58	576.50	576.40	576.49	576.72	577.16
MW503D	578.07	577.70	577.45	577.36	576.96	576.83	576.69	576.60	576.76	576.96	577.36
MW503S	580.30	579.00	578.58	578.29	578.20	578.47	578.35	578.41	580.31	580.42	577.53
MW504S	579.49	578.07	578.25	577.82	578.19	578.43	578.26	578.41	577.97	579.33	576.76
MW506S	580.04	578.58	578.19	577.95	577.95	578.21	578.03	578.25	579.68	580.07	577.18
Gage 3	583.76	580.24	Dry	Dry	Dry	Dry	Dry (5)	(5)	(5)	Dry	Dry
<u>Crotty Street Channel</u>											
MW1-00	579.57	577.71	577.60	577.36	577.45	577.75	577.49	577.81	578.14	578.61	576.72
MW2-00	578.67	577.65	577.59	577.36	577.45	577.77	577.51	577.82	578.26	578.69	576.76
MW3-00	578.46	578.68	577.60	577.37	577.45	577.74	577.48	577.79	578.26	578.62	576.70
MW4-00	578.87	577.62	577.57	577.34	577.47	577.78	577.51	577.84	578.30	578.67	576.79
MW5-00	n/a (4)	n/a (4)	578.01	577.91	577.31	576.90	576.91	576.97	577.86	577.06	577.02
Gage 1	Destroyed (3)	Destroyed (3)	578.05	577.93	577.43	577.33	(5)	(5)	(5)	(5)	578.12
<u>Saginaw River</u>											
<u>NOAA/NOS Station - Essexville, MI</u> ⁽⁶⁾	577.81	578.27	577.76	577.49	577.23	577.02	576.78	576.77	576.74	576.80	577.91

Notes:

- (1) Approximate value
 - (2) Lock Needs Replacing
 - (3) Gage needs to be relocated
 - (4) Could not open due to liner attachment
 - (5) Could not read due to accumulation of snow and ice
 - (6) Water Level is taken from mean hourly data over a 24 hour period
- n/a Groundwater elevation not available

TABLE 3
MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN

<i>Well Location</i>	<i>Groundwater Elevation (feet AMSL)</i>									
	<i>8/26/2002</i>	<i>7/28/2003</i>	<i>8/24/2004</i>	<i>8/29/2005</i>	<i>8/16/2006</i>	<i>8/20/2007</i>	<i>8/19/2008</i>	<i>8/27/2009</i>	<i>8/16/2010</i>	<i>8/22/2011</i>
<u>Machine Storage Area (MSA)</u>										
LMW13S	582.05	578.45	579.40	578.14	578.23	577.67	578.21	579.31	578.71	578.03
LMW17S	578.91	582.73	578.80	578.31	578.63	577.58	578.58	578.81	578.83	578.80
LMW18S	578.85	578.35	578.45	578.23	578.00	578.13	577.62	577.99	577.66	577.61
LMW19S	579.93	579.24	579.21	578.85	578.45	579.71	578.45	578.53	578.25	578.34
MW1S	578.48	578.56	578.63	577.58	n/a	578.48	580.93	579.71	578.68	578.65
MW100S	578.91	577.27	579.15	578.57	578.38	578.01	578.40	579.27	578.86	578.18
MW101S	579.12	578.87	578.82	577.95	578.31	578.39	578.49	578.78	578.93	578.80
MW102D1	578.98	578.25	579.02	578.30	578.30	578.04	578.83	579.42	578.39	578.71
MW102D2	578.95	578.24	579.01	578.33	578.25	578.03	578.93	579.40	578.37	578.69
MW102D3	578.93	578.20	578.98	578.31	578.25	577.98	578.89	579.41	579.34	578.67
MW102D4 (replacement)	578.86	578.16	578.94	578.25	578.22	577.98	578.76	579.33	578.29	578.63
MW300S	578.53	577.77	577.05	578.34	576.81	576.30	579.26	578.22	577.18	577.03
LMW14SR (Replaced LMW14S Jan/00)	578.45	578.13	576.94	577.50	577.97	576.98	577.96	579.19	578.60	577.47
<u>Perimeter Banks (PB)</u>										
LMW15D	578.83	578.04	579.34	578.24	578.22	577.89	578.12	579.45	578.21	578.65
MW301D1	579.66	578.90	580.02	579.05	578.94	578.72	579.03	579.96	578.96	579.39
MW301D2	579.25	578.49	579.59	578.62	578.55	578.33	578.64	579.56	578.60	579.00
MW301D3	579.10	578.36	579.47	578.52	578.44	578.20	578.41	579.44	578.47	578.87
MW301D4	579.28	578.57	579.71	578.80	578.69	578.48	578.75	579.70	578.74	579.16
<u>Support Facilities Area (SFA)</u>										
MSA5S	580.65	580.55	580.57	579.76	579.28	580.10	578.04	580.10	579.10	578.67

TABLE 3

**MONITORING WELL COMPLETION DETAILS AND GROUNDWATER ELEVATIONS
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN**

<i>Well Location</i>	<i>Groundwater Elevation (feet AMSL)</i>									
	<i>8/26/2002</i>	<i>7/28/2003</i>	<i>8/24/2004</i>	<i>8/29/2005</i>	<i>8/16/2006</i>	<i>8/20/2007</i>	<i>8/19/2008</i>	<i>8/27/2009</i>	<i>8/16/2010</i>	<i>8/22/2011</i>
<u>Undeveloped Area (UA)</u>										
MW10S	579.29	578.98	578.75	578.16	578.13	577.94	578.75	579.25	578.72	578.35
MW501D	578.08	577.34	578.54	577.56	577.57	577.17	577.34	578.63	577.76	578.03
MW501S	578.66	575.72	578.32	577.07	577.11	577.16	578.33	578.56	577.74	577.61
MW502D	577.96	577.13	578.33	577.40	577.42	577.05	577.97	578.15	577.67	577.89
MW503D	578.74	577.98	579.07	578.12	578.16	577.93	578.81	579.88	578.87	579.04
MW503S	579.89	579.62	579.63	579.11	579.17	578.98	579.97	580.11	579.64	579.50
MW504S	578.91	579.00	577.95	577.26	577.31	577.34	578.46	578.73	577.87	577.66
MW506S	578.53	578.07	578.14	577.62	577.66	577.50	578.27	578.74	578.00	577.88
Gage 3	Dry	Dry	Dry	Dry	abandoned	abandoned	abandoned	abandoned	abandoned	abandoned
<u>Crotty Street Channel</u>										
MW1-00	578.44	577.78	578.37	577.09	576.92	577.11	578.74	578.95	577.13	577.17
MW2-00	578.03	577.60	577.50	577.23	576.97	577.09	578.83	578.40	577.26	577.29
MW3-00	578.38	577.77	578.51	577.13	576.94	577.19	578.74	579.01	577.14	577.25
MW4-00	578.07	577.68	577.59	577.34	577.07	577.21	578.95	578.55	577.38	577.41
MW5-00	576.72	576.28	576.91	577.85	576.72	576.55	578.82	578.04	576.95	576.77
Gage 1	578.73	577.93	579.63	578.43	578.33	577.83	578.55	n/a	n/a	n/a
<u>Saginaw River</u>										
<u>NOAA/NOS Station - Essexville, MI</u> ⁽⁶⁾	578.50	576.83	578.52	578.32	577.41	577.09	577.97	578.34	577.41	577.53

Notes:

- (1) Approximate value
 - (2) Lock Needs Replacing
 - (3) Gage needs to be relocated
 - (4) Could not open due to liner attachment
 - (5) Could not read due to accumulation of snow and ice
 - (6) Water Level is taken from mean hourly data over a 24 hour period
- n/a Groundwater elevation not available

TABLE 4

ANALYTICAL RESULTS SUMMARY
EXTRACTION SYSTEM SAMPLING
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN
APRIL 2011

<i>Sample Location:</i>		CB-2	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge	MSA GW Ext. Sys. Discharge
<i>Sample ID:</i>		W-12610-040611-SSH-11103	W-12610-040611-SSH-11102	GW-12610-082211-JY-002	W-12610-040611-SSH-11101	GW-12610-082211-JY-001
<i>Sample Date:</i>		4/6/2011	4/6/2011	8/22/2011	4/6/2011	8/22/2011
<i>Parameters:</i>	<i>Units</i>					
<i>Polychlorinated Biphenyls</i>						
Aroclor-1016 (PCB-1016)	mg/L	0.0002 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1221 (PCB-1221)	mg/L	0.0002 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1232 (PCB-1232)	mg/L	0.0002 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1242 (PCB-1242)	mg/L	0.0002 U	0.0002 U	0.00096	0.00013 J	0.00019 U
Aroclor-1248 (PCB-1248)	mg/L	0.0002 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1254 (PCB-1254)	mg/L	0.0002 U	0.0002 U	0.00019 U	0.0002 U	0.00019 U
Aroclor-1260 (PCB-1260)	mg/L	0.0002 U	0.0002 U	0.000044 J	0.0002 U	0.00019 U

Notes:

J - Estimated concentration

U - Not present at or above the associated value

TABLE 5

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER SAMPLING
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN
AUGUST 2011

<i>Sample Location:</i>		LMW13S	LMW15D	MW10S	MW102D1	MW102D2	MW102D4
<i>Sample ID:</i>		GW-12610-082311-JY-006	GW-12610-082311-JY-007	GW-12610-082411-JY-016	GW-12610-082311-JY-010	GW-12610-082311-JY-011	GW-12610-082311-JY-012
<i>Sample Date:</i>		8/23/2011	8/23/2011	8/24/2011	8/23/2011	8/23/2011	8/23/2011
<i>Parameters:</i>	<i>Units</i>						
<i>Metals</i>							
Antimony, total recoverable	µg/L	-	-	0.23 J	-	-	-
Arsenic, total recoverable	µg/L	-	-	2.1	-	-	-
Barium, total recoverable	µg/L	-	-	400	-	-	-
Beryllium, total recoverable	µg/L	-	-	1.0 U	-	-	-
Cadmium, total recoverable	µg/L	-	-	1.0 UJ	-	-	-
Chromium, total recoverable	µg/L	-	-	2.6	-	-	-
Cobalt, total recoverable	µg/L	-	-	0.44 J	-	-	-
Copper, total recoverable	µg/L	-	-	2.4 U	-	-	-
Lead, total recoverable	µg/L	-	-	8.6	-	-	-
Mercury	µg/L	-	-	0.20 U	-	-	-
Nickel, total recoverable	µg/L	-	-	2.4	-	-	-
Selenium, total recoverable	µg/L	-	-	2.0 U	-	-	-
Silver, total recoverable	µg/L	-	-	1.0 U	-	-	-
Thallium, total recoverable	µg/L	-	-	0.19 J	-	-	-
Tin, total recoverable	µg/L	-	-	10 U	-	-	-
Vanadium, total recoverable	µg/L	-	-	0.56 J	-	-	-
Zinc, total recoverable	µg/L	-	-	2600	-	-	-
<i>Polychlorinated Biphenyls</i>							
Aroclor-1016 (PCB-1016)	µg/L	0.19 U	0.19 U	0.39 U	0.19 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.19 U	0.19 U	0.39 U	0.19 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.19 U	0.19 U	0.39 U	0.19 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.72	0.060 J	0.39 U	0.28	0.20 U	0.082 J
Aroclor-1248 (PCB-1248)	µg/L	0.19 U	0.19 U	0.39 U	0.19 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.19 U	0.19 U	0.39 U	0.19 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.19 U	0.19 U	0.39 U	0.046 J	0.20 U	0.20 U

Notes:

- J - Estimated concentration
U - Not present at or above the associated value
UJ - Estimated reporting limit
- - Not analyzed

TABLE 5

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER SAMPLING
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN
AUGUST 2011

Sample Location:		MW300S	MW300S	MW301D2	MW301D4	MW501D	MW502D
Sample ID:		GW-12610-082311-JY-004	GW-12610-082311-JY-005	GW-12610-082311-JY-008	GW-12610-082311-JY-009	GW-12610-082411-JY-018	GW-12610-082411-JY-015
Sample Date:		8/23/2011	8/23/2011 (Duplicate)	8/23/2011	8/23/2011	8/24/2011	8/24/2011
Parameters:	Units						
Metals							
Antimony, total recoverable	µg/L	-	-	-	-	2.0 U	0.20 J
Arsenic, total recoverable	µg/L	-	-	-	-	9.7	5.4
Barium, total recoverable	µg/L	-	-	-	-	5000	4200
Beryllium, total recoverable	µg/L	-	-	-	-	1.0 U	1.0 U
Cadmium, total recoverable	µg/L	-	-	-	-	1.0 UJ	1.0 UJ
Chromium, total recoverable	µg/L	-	-	-	-	2.0 U	2.0 U
Cobalt, total recoverable	µg/L	-	-	-	-	0.47 J	0.53 J
Copper, total recoverable	µg/L	-	-	-	-	2.0 U	2.0 U
Lead, total recoverable	µg/L	-	-	-	-	1.0 U	0.84 J
Mercury	µg/L	-	-	-	-	0.20 U	0.20 U
Nickel, total recoverable	µg/L	-	-	-	-	2.1	3.2
Selenium, total recoverable	µg/L	-	-	-	-	2.0 U	2.0 U
Silver, total recoverable	µg/L	-	-	-	-	1.0 U	1.0 U
Thallium, total recoverable	µg/L	-	-	-	-	1.0 U	1.4 J
Tin, total recoverable	µg/L	-	-	-	-	10 U	10 U
Vanadium, total recoverable	µg/L	-	-	-	-	10 U	10 U
Zinc, total recoverable	µg/L	-	-	-	-	20 U	20 U
Polychlorinated Biphenyls							
Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.23	0.24	0.19 U	0.20 U	0.19 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.19 U	0.19 U	0.20 U	0.19 U	0.20 U

Notes:

- J - Estimated concentration
- U - Not present at or above the associated value
- UJ - Estimated reporting limit
- Not analyzed

TABLE 5

ANALYTICAL RESULTS SUMMARY
ANNUAL GROUNDWATER SAMPLING
RACER TRUST, BAY CITY SITE
BAY CITY, MICHIGAN
AUGUST 2011

<i>Sample Location:</i>		MW503D	MW503D	MW504S
<i>Sample ID:</i>		GW-12610-082311-JY-013	GW-12610-082311-JY-014	GW-12610-082411-JY-017
<i>Sample Date:</i>		8/23/2011	8/23/2011 (Duplicate)	8/24/2011
<i>Parameters:</i>	<i>Units</i>			
<i>Metals</i>				
Antimony, total recoverable	µg/L	2.0 U	2.0 U	-
Arsenic, total recoverable	µg/L	53	54	-
Barium, total recoverable	µg/L	2700	2800	-
Beryllium, total recoverable	µg/L	5.0 U	5.0 U	-
Cadmium, total recoverable	µg/L	1.0 UJ	1.0 UJ	-
Chromium, total recoverable	µg/L	5.2 J	2.4 J	-
Cobalt, total recoverable	µg/L	2.5	2.3	-
Copper, total recoverable	µg/L	2.0 U	2.0 U	-
Lead, total recoverable	µg/L	0.24 J	0.18 J	-
Mercury	µg/L	0.20 U	0.20 U	-
Nickel, total recoverable	µg/L	24	19	-
Selenium, total recoverable	µg/L	2.0 U	2.0 U	-
Silver, total recoverable	µg/L	1.0 U	1.0 U	-
Thallium, total recoverable	µg/L	0.97 J	0.31 J	-
Tin, total recoverable	µg/L	10 U	10 U	-
Vanadium, total recoverable	µg/L	10 U	10 U	-
Zinc, total recoverable	µg/L	20 U	20 U	-
<i>Polychlorinated Biphenyls</i>				
Aroclor-1016 (PCB-1016)	µg/L	-	-	0.19 U
Aroclor-1221 (PCB-1221)	µg/L	-	-	0.19 U
Aroclor-1232 (PCB-1232)	µg/L	-	-	0.19 U
Aroclor-1242 (PCB-1242)	µg/L	-	-	0.19 U
Aroclor-1248 (PCB-1248)	µg/L	-	-	0.19 U
Aroclor-1254 (PCB-1254)	µg/L	-	-	0.19 U
Aroclor-1260 (PCB-1260)	µg/L	-	-	0.19 U

Notes:

- J - Estimated concentration
- U - Not present at or above the associated value
- UJ - Estimated reporting limit
- - Not analyzed

TABLE 6

SUMMARY OF LONG-TERM GROUNDWATER AND STORMWATER MONITORING ACTIVITIES
 RACER TRUST - BAY CITY SITE
 BAY CITY, MICHIGAN

Plant Area	Location	Original Program 2001 - 2008			Revision 2009-2010			Proposed Revision 2011			Proposed Revision 2012		
		Groundwater		Static Water	Groundwater		Static Water	Groundwater		Static Water	Groundwater		Static Water
		Quality Monitoring		Level Monitoring (1)	Quality Monitoring		Level Monitoring (1)	Quality Monitoring		Level Monitoring (1)	Quality Monitoring		Level Monitoring (1)
		Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency
Machine Storage Area (MSA)													
MSA	LMW17S	--	--	annually	--	--	annually	--	--	annually	--	--	annually
MSA	LMW18S (3)	--	--	annually	--	--	annually	--	--	annually	--	--	annually
MSA	LMW19S	--	--	annually	--	--	annually	--	--	annually	--	--	annually
MSA	MW1S (3)	--	--	annually	--	--	annually	--	--	annually	--	--	annually
MSA	MW100S (3)	--	--	annually	--	--	annually	--	--	annually	--	--	annually
MSA	MW101S (3)	--	--	annually	--	--	annually	--	--	annually	--	--	annually
MSA	MW102D1	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	MW102D2	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	MW102D3	PCBs	annually	annually	PCBs	annually	annually		--	annually	--	--	annually
MSA	MW102D4	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	MW300S	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
MSA	LMW14S	--	--	annually	--	--	annually	--	--	annually	--	--	annually
Perimeter Banks (PB)													
PB	LMW13S	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	LMW15D	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	MW301D1	PCBs	annually	annually	PCBs	annually	annually		--	annually	--	--	annually
PB	MW301D2	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually
PB	MW301D3	PCBs	annually	annually	PCBs	annually	annually		--	annually	--	--	annually
PB	MW301D4	PCBs	annually	annually	PCBs	annually	annually	PCBs	annually	annually		annually	annually
Support Facilities Area (SFA)													
SFA	MSA5S	--	--	annually	--	--	annually	--	--	annually	--	--	annually
Undeveloped Area (UA)													
UA	MW10S	PCBs, metals	annually	annually	PCBs, metals	annually	annually	PCBs, metals	annually	annually		annually	annually
UA	MW501D	PCBs, metals	annually	annually	PCBs, metals	annually	annually	PCBs, metals	annually	annually		annually	annually
UA	MW501S	PCBs, metals	annually	annually	PCBs, metals	annually	annually		--	annually	--	--	annually
UA	MW502D	PCBs, metals	annually	annually	PCBs, metals	annually	annually	PCBs, metals	annually	annually		annually	annually
UA	MW503D	PCBs, metals	annually	annually	PCBs, metals	annually	annually	metals	annually	annually		annually	annually
UA	MW503S	PCBs, metals	annually	annually	PCBs, metals	annually	annually		--	annually	--	--	annually
UA	MW504S	PCBs, metals	annually	annually	PCBs, metals	annually	annually	PCBs	annually	annually		annually	annually
UA	MW506S	PCBs, metals	annually	annually	PCBs, metals	annually	annually		--	annually	--	--	annually
UA	Gage 3 (2)	--	--	annually	--	--	annually	--	--	annually	--	--	annually
Crotty Street Channel (CSC)													
CSC	MW1	--	--	annually	--	--	annually	--	--	annually	--	--	annually
CSC	MW2	--	--	annually	--	--	annually	--	--	annually	--	--	annually
CSC	MW3	--	--	annually	--	--	annually	--	--	annually	--	--	annually
CSC	MW4	--	--	annually	--	--	annually	--	--	annually	--	--	annually
CSC	MW5	--	--	annually	--	--	annually	--	--	annually	--	--	annually
CSC	Gage 1 (2)	--	--	annually	--	--	annually	--	--	annually	--	--	annually

TABLE 6

SUMMARY OF LONG-TERM GROUNDWATER AND STORMWATER MONITORING ACTIVITIES
 RACER TRUST - BAY CITY SITE
 BAY CITY, MICHIGAN

Plant Area	Location	Original Program 2001 - 2008			Revision 2009-2010			Proposed Revision 2011			Proposed Revision 2012		
		Groundwater		Static Water	Groundwater		Static Water	Groundwater		Static Water	Groundwater		Static Water
		Quality Monitoring		Level Monitoring (1)	Quality Monitoring		Level Monitoring (1)	Quality Monitoring		Level Monitoring (1)	Quality Monitoring		Level Monitoring (1)
		Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency	Parameters	Frequency	Frequency
Stormwater System(3)													
MSA(5)	Extraction System	PCBs	Semi-annually	--	PCBs	Semi-annually	--	PCBs	Semi-annually	--	PCBs	Semi-annually	--
CSC(5)	Extraction System	PCBs	Semi-annually	--	PCBs	Semi-annually	--	PCBs	Semi-annually	--	PCBs	Semi-annually	--
CSC(5)	CB2	PCBs	Semi-annually	--	PCBs	Semi-annually	--		--	--	--	--	--

Notes:

- (1) Static water level monitoring refers to independent monitoring program to evaluate containment. Static water level measurements will also be collected at all groundwater quality monitoring wells to evaluate groundwater flow directions.
 - (2) Staff gauge.
 - (3) Extraction system monitoring.
 - (4) To be sampled by plant personnel.
 - (5) To be sampled by company who maintains the extraction system.
 - (6) Monitoring conducted by GM LLC
- Changes made to monitoring program

ATTACHMENT A
MONTHLY MAINTENANCE ACTIVITY CHECKLISTS

MLC
O&M LOG
CSC/MSA
BAY CITY, MICHIGAN
Jan. 11

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	Steve Hoosmeyer	1/13/11	field book	up to date
Site Log Book	Monthly			ll	ll ll
Extraction Well Water Levels	Monthly			collected using dedicated OTW meter	
Inspection	Monthly			continue to have problems with pumps	
Maintenance	Monthly - As Required			ongoing - pull & clean, swapping parts to keep running	
Level Transmitter Inspection	Monthly			not in use	
Maintenance	Monthly - As Required			ll	
Calibration	Semi-Annually			ll	
Control Panel Inspection	Monthly			working properly	
Maintenance	Monthly - As Required			NA	
Air Supply Manifold Inspection	Monthly			GM continues to supply air from powerhouse	
Air Compressor Maintenance	Monthly - As Required				
Heater Check	Monthly (Winter Season)			turned "on" for winter space heater in E6010	
Maintenance	Monthly - As Required			none required at this time	

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	1/13/11	Annually	
Water Levels	As required				
General Maintenance	As required			continue to swapp parts	
Force Main Cleaning	As required			scheduled for early spring	
Flowmeter Cleaning	As required			not in use	
Spare Parts Inventory	As used			good parts decreasing bad parts increasing	
Staff Gauges Water Levels	As Required			collected	snow + ice
Exposure Barriers	Monthly			minor erasing on SW corner of cap, good cover -	
Multi-Layer Cap	Monthly			snow + ice covered	
Containment System	Monthly			minor cracks at welds	
Stormwater Collection System	Monthly			working properly, normal flow, goes to GM WWTP	
Crotty Street Channel Abandoned 60" Sewer	Monthly			bulkhead appears intact	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

EW#	MACHINE STORAGE AREA	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
		SSH	1/13/11					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	12.05					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	9.41					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	10.04					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	12.63					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	10.28					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	13.95					product on probe
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	7.78					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)							
	TOTAL (gal.)		not in use					
LT-01			not in use					
CP-01			OK					
AIR SUPPLY MANIFOLD			by GM					
HEATER			on					
DATE OF LAST SWABBING			2009					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#	CROTTY STREET CHANNEL	SSH	1/13/11					
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT	7.33	8.71					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT	5.42	7.58					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT	6.71	8.13					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-03	FLOW (gpm)	not in use						
	TOTAL (gal.)							
HEATER		OK						
DATE OF LAST SWABBING		2009						
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)	-0.35						
	INLET RIVER - WATER LEVEL (ft)	snow + ice						
	CROTTY STREET - WATER LEVEL (ft)	missing						

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	S. Howenring	2/15/10	field book	up to date
Site Log Book	Monthly			ll	ll
Extraction Well Water Levels	Monthly			collected using DTU meter	
Inspection	Monthly			continue problems with Solo pumps	
Maintenance	Monthly - As Required			ongoing - pull, clean, replace	
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required				
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			working properly	
Maintenance	Monthly - As Required			none required	
Air Supply Manifold Inspection	Monthly			GM continues to supply air	
Air Compressor Maintenance	Monthly - As Required			—	
Heater Check (Winter Season)	Monthly			"on" for	season
Maintenance	Monthly - As Required			NA	

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	2/15	annually	
Water Levels	As required			LI	
General Maintenance	As required			continue to swap parts - shovel snow	
Force Main Cleaning	As required			last time 2009 -	schedule for early summer
Flowmeter Cleaning	As required			/	
Spare Parts Inventory	As used			using up parts	
Staff Gauges Water Levels	As Required			collected	snow
Exposure Barriers	Monthly			minor erosion - SW corner - snow/freeze	
Multi-Layer Cap	Monthly			snow covered	
Containment System	Monthly			minor cracks at welds	
Stormwater Collection System	Monthly			normal flow -	OK
Crotty Street Channel Abandoned 60" Sewer	Monthly			bulkhead -	OK

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#	MACHINE STORAGE AREA	SSH	2/15					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	12.20					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	9.49					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	10.15					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	12.39					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	10.52					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	13.99					product at 12.98'
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	8.13					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)							
	TOTAL (gal.)							
LT-01								
CP-01								
AIR SUPPLY MANIFOLD								
HEATER								
DATE OF LAST SWABBING								

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

EW#	CROTTY STREET CHANNEL	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)	CCH	2/15					
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 7.33		8.50					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 5.42		7.31					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 6.71		8.03					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-03	FLOW (gpm)							
	TOTAL (gal.)							
HEATER								
DATE OF LAST SWABBING			2009					
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)		0.62					
	INLET RIVER - WATER LEVEL (ft)		SNOW					
	CROTTY STREET - WATER LEVEL (ft)		missing					

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	S. Howeniger	3/17/11	field book	used onsite
Site Log Book	Monthly			LI	LI
Extraction Well Water Levels	Monthly			collected with DTW meter	
Inspection	Monthly			continued problems with Solo pumps	
Maintenance	Monthly - As Required			pull, clean, replace as necessary	
Level Transmitter Inspection	Monthly			not in use	
Maintenance	Monthly - As Required			/	
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			working properly	
Maintenance	Monthly - As Required			none required	
Air Supply Manifold Inspection	Monthly			GM supplying air from powerhouse	
Air Compressor Maintenance	Monthly - As Required				
Heater Check	Monthly (Winter Season)		"on" for	season	
Maintenance	Monthly - As Required		none required		

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	3/17	annually	
Water Levels	As required			ll	
General Maintenance	As required			continue to check/swap parts - shovel snow	
Force Main Cleaning	As required			—	schedule for early summer
Flowmeter Cleaning	As required			—	
Spare Parts Inventory	As used			continue to use up parts for Solo's	
Staff Gauges Water Levels	As Required			collected	
Exposure Barriers	Monthly			minor erosion in SW corner of cap	
Multi-Layer Cap	Monthly			mainly snow covered	
Containment System	Monthly			minor cracks at welds	
Stormwater Collection System	Monthly			light flow - cold, not much melt	
Crotty Street Channel Abandoned 60" Sewer	Monthly			bulkhead appears intact	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#	MACHINE STORAGE AREA	SCH 13/17						
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	11.89					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	9.20					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	12.31					product at 9.83'
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	12.91					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	10.12					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	13.70					product at 12.57'
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	6.93					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)		/					
	TOTAL (gal.)		/					
LT-01			/					
CP-01			OK					
AIR SUPPLY MANIFOLD			by GM					
HEATER			11/21/09					
DATE OF LAST SWABBING			2009					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#	CROTTY STREET CHANNEL	SSH	3/17					
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT	7.33	8.19					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							Sump pump
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT	5.42	10.95					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT	6.71	7.79					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-03	FLOW (gpm)							
	TOTAL (gal.)							
HEATER								
DATE OF LAST SWABBING			2/20/19					
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)		ice					
	INLET RIVER - WATER LEVEL (ft)		snow/ice					
	CROTTY STREET - WATER LEVEL (ft)		missing					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

April, 11

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSH	4/13/11	field book	used onsite
Site Log Book	Monthly				
Extraction Well Water Levels	Monthly			collected	
Inspection	Monthly			new pumps in EW12 + EW10	
Maintenance	Monthly - As Required			pull + clean pumps	continue problems with Solo pumps
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required				
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			working properly	
Maintenance	Monthly - As Required			none required	
Air Supply Manifold Inspection	Monthly			by GM plant	from powerhouse
Air Compressor Maintenance	Monthly - As Required			—	
Heater Check	Monthly (Winter Season)			"off" for season	
Maintenance	Monthly - As Required			none required	

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	4/13/11	annually	
Water Levels	As required			ll	
General Maintenance	As required			spring cleanup	
Force Main Cleaning	As required			scheduled after	spring rains
Flowmeter Cleaning	As required			—	
Spare Parts Inventory	As used			using parts as necessary	from old pumps
Staff Gauges Water Levels	As Required			collected	
Exposure Barriers	Monthly			minor erosion of SW corner of cap -	
Multi-Layer Cap	Monthly			starting to "green up" - good vegetation	
Containment System	Monthly			minor cracks at welds	
Stormwater Collection System	Monthly			normal to heavy flow - rains	
Crotty Street Channel Abandoned 60" Sewer	Monthly			bulkhead - OK - normal H ₂ O level	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#	MACHINE STORAGE AREA	SS17	4/13					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 12.74	12.01						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 11.00	9.31						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 11.34	9.92						product at 9.87
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 11.04	12.59						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 10.77	13.83						new pump
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 14.51	13.79						product at 12.84
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 9.42	13.27						new pump
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)							
	TOTAL (gal.)							
LT-01								
CP-01								
AIR SUPPLY MANIFOLD								
HEATER								
DATE OF LAST SWABBING								

C&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW# CROTTY STREET CHANNEL		SSH 4/1/13						
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 7.33	8.72						
	PUMP CHANGED (Y/N)							
CHLORINE ADDED								
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							sump pump
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 5.42	9.38						
	PUMP CHANGED (Y/N)							
CHLORINE ADDED								
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT: 6.71	8.08						
	PUMP CHANGED (Y/N)							
CHLORINE ADDED								
FQIT-03	FLOW (gpm)	/						
	TOTAL (gal.)	/						
HEATER		"off"						
DATE OF LAST SWABBING		2009						
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)	0.72						wind blowing water out
	INLET RIVER - WATER LEVEL (ft)	dry						
	CROTTY STREET - WATER LEVEL (ft)	missing						

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSH	5/23/11	field book	used on-site
Site Log Book	Monthly			21	11
Extraction Well Water Levels	Monthly			collected	
Inspection	Monthly			some working, some not	new pumps in 10+12
Maintenance	Monthly - As Required			continue to pull +	clean pumps as necessary
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required				
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			good condition	
Maintenance	Monthly - As Required			none required	
Air Supply Manifold Inspection	Monthly			by GM - from plant powerhouse	
Air Compressor Maintenance	Monthly - As Required			NA	
Heater Check	Monthly (Winter Season)			"off" for summer	
Maintenance	Monthly - As Required			none required	

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	5/24/11	Annually in Aug.	
Water Levels	As required			''	
General Maintenance	As required			cleanout bldgs	new H ₂ O/CLR
Force Main Cleaning	As required			schedule to complete in 2011	
Flowmeter Cleaning	As required			NA	
Spare Parts Inventory	As used			continue to re-use parts as necessary	
Staff Gauges Water Levels	As Required			collected	
Exposure Barriers	Monthly			minor erosion in small areas but vegetation growing	
Multi-Layer Cap	Monthly			good vegetation	
Containment System	Monthly			minor cracks at welds on cap	
Stormwater Collection System	Monthly			drain tile blowing from rains	
Crotty Street Channel Abandoned 60" Sewer	Monthly			bulkhead appears in place	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

MACHINE STORAGE AREA		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#		SSH	5/23					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 12.74	11.98						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 11.00	9.28						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 11.34	9.69						product at 9.69
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 11.04	12.66						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 10.77	13.71						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 14.51	13.73						product at 12.73
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 9.42	7.62						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)	NA						
	TOTAL (gal.)	NA						
LT-01		OK						
CP-01		5.71						
AIR SUPPLY MANIFOLD		6.00						
HEATER		7.11						
DATE OF LAST SWABBING								

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

EW#	CROTTY STREET CHANNEL	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)	SSP	5/23					
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 7.33		7.16					
	PUMP CHANGED (Y/N)							
EW-14	CHLORINE ADDED							
	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 5.42		6.31					
EW-15	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
FQIT-03	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 6.71		6.82					
	PUMP CHANGED (Y/N)							
HEATER	CHLORINE ADDED							
	FLOW (gpm)		NA					
DATE OF LAST SWABBING	TOTAL (gal.)		"off"					
	STAFF GAUGES							
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)		0.72					
	INLET RIVER - WATER LEVEL (ft)							
	CROTTY STREET - WATER LEVEL (ft)		missing					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSA	6/10/11	field book	used while onsite
Site Log Book	Monthly			ll	ll
Extraction Well Water Levels	Monthly			collected	
Inspection	Monthly			iron bacteria building up	
Maintenance	Monthly - As Required			pull & clean non-working pumps	
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required				
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			good condition	
Maintenance	Monthly - As Required			none required	
Air Supply Manifold Inspection	Monthly			by GM plant personnel	
Air Compressor Maintenance	Monthly - As Required			—	
Heater Check	Monthly (Winter Season)			"off"	summer time
Maintenance	Monthly - As Required			none required	

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	6/10/11	annually in Aug	
Water Levels	As required			ll	
General Maintenance	As required			pull + inspect sump pumps	- OK but some scan bacteria
Force Main Cleaning	As required			complete in 2011	
Flowmeter Cleaning	As required			NA	
Spare Parts Inventory	As used			re-use parts from old pumps	
Staff Gauges Water Levels	As Required			Crotty St. gauge missing	
Exposure Barriers	Monthly			very minor erosion	
Multi-Layer Cap	Monthly			good vegetation growth	
Containment System	Monthly			minor checks at welds	
Stormwater Collection System	Monthly			normal	
Crotty Street Channel Abandoned 60" Sewer	Monthly			normal water level	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
MACHINE STORAGE AREA		SSH	6/10					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	11.92					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	9.33					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							product at 9.78
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	9.83					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	12.79					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	13.64					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							product at 12.74
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	13.80					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	7.45					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)		NA					
	TOTAL (gal.)		NA					
LT-01			OK					
CP-01			OK					
AIR SUPPLY MANIFOLD			6, 6m					
HEATER			288					
DATE OF LAST SWABBING			2-10					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

EW#	CROTTY STREET CHANNEL	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)	SSH	6/10					
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 7.33		8.69					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 5.42		8.32					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 6.71		8.09					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-03	FLOW (gpm)							
	TOTAL (gal.)		NA					
HEATER			off					
DATE OF LAST SWABBING			2010					
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)		0.72'					
	INLET RIVER - WATER LEVEL (ft)							
	CROTTY STREET - WATER LEVEL (ft)		missing					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSH	7/13/11	In field book	
Site Log Book	Monthly			ll	
Extraction Well Water Levels	Monthly			collected	
Inspection	Monthly			most are working properly	
Maintenance	Monthly - As Required			clean iron bacteria	
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required			/	
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			good condition	
Maintenance	Monthly - As Required			none	
Air Supply Manifold Inspection	Monthly			by GM powerhouse personnel	
Air Compressor Maintenance	Monthly - As Required			NA	
Heater Check	Monthly (Winter Season)			"ff"	
Maintenance	Monthly - As Required			none	

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	7/13/11	annually in August	
Water Levels	As required			11	
General Maintenance	As required			spray wasps around bldgs	
Force Main Cleaning	As required			required in 2011	
Flowmeter Cleaning	As required			NA	
Spare Parts Inventory	As used			adequate but getting old/broken	
Staff Gauges Water Levels	As Required			collected - krotty ST missing	
Exposure Barriers	Monthly			no excavations/ripping	
Multi-Layer Cap	Monthly			heavy vegetation growth - up to 5'	
Containment System	Monthly			minor cracks on cap at wells	
Stormwater Collection System	Monthly			OK - standing H ₂ O	
Crotty Street Channel Abandoned 60" Sewer	Monthly			normal level	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
(1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT, SPARE PARTS USED
MACHINE STORAGE AREA		SSA	7/13					
EW#								
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	11.83					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	9.24					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	9.75					product at 9.71
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	12.86					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	13.69					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	13.77					product at 12.80
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	12.29					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)		NA					
	TOTAL (gal.)		NA					
LT-01			OK					
CP-01			5,6M					
AIR SUPPLY MANIFOLD			OK					
HEATER			2010					
DATE OF LAST SWABBING								

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

EW#	CROTTY STREET CHANNEL	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)	SSA	7/13					
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 7.33		8.70					
	PUMP CHANGED (Y/N)							
EW-14	CHLORINE ADDED							
	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 5.42		8.65					
EW-15	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
FQIT-03	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 6.71		8.11					
	PUMP CHANGED (Y/N)							
HEATER	CHLORINE ADDED							
	FLOW (gpm)		NA					
DATE OF LAST SWABBING	TOTAL (gal.)		off					
	INLET SLIP - WATER LEVEL (ft)		20.0					
STAFF GAUGES	INLET RIVER - WATER LEVEL (ft)		0.22'					
	CROTTY STREET - WATER LEVEL (ft)		missing					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSH	8/31/11	field book	
Site Log Book	Monthly			ll	
Extraction Well Water Levels	Monthly			collected throughout month	
Inspection	Monthly			GW characterization study	
Maintenance	Monthly - As Required			continue to clean + pull pumps	
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required				
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			good condition	
Maintenance	Monthly - As Required			none required	
Air Supply Manifold Inspection	Monthly			by GM - powerhouse	
Air Compressor Maintenance	Monthly - As Required			NA	
Heater Check	Monthly (Winter Season)			"off"	
Maintenance	Monthly - As Required			none required	

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	8/31/11	collected well of 22 Ad	
Water Levels	As required			ll	ll
General Maintenance	As required				
Force Main Cleaning	As required			flow monitoring	
Flowmeter Cleaning	As required			2011	
Spare Parts Inventory	As used			NA	
Staff Gauges Water Levels	As Required			use & re-use parts	
Exposure Barriers	Monthly			installed crotty st on 7/26/11	
Multi-Layer Cap	Monthly			no excavations/digging	
Containment System	Monthly			good vegetation	
Stormwater Collection System	Monthly			minor cracks at wells of cap	
Crotty Street Channel Abandoned 60" Sewer	Monthly			no flow	
				normal level	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
(1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
MACHINE STORAGE AREA		SSH	8/31					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	12.77					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	10.59					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	10.68					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	10.85					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	10.94					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	17.87					product at 13.80
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	8.71					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)		NA					
	TOTAL (gal.)		NA					
LT-01			OK					
CP-01			5.6M					
AIR SUPPLY MANIFOLD			off					
HEATER								
DATE OF LAST SWABBING								

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

EW#	CROTTY STREET CHANNEL	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)	SSH	8/31					
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 7.33		8.69					
	PUMP CHANGED (Y/N)							
EW-14	CHLORINE ADDED							
	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 5.42		10.13					
EW-15	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
FQIT-03	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 6.71		8.12					
	PUMP CHANGED (Y/N)							
HEATER	CHLORINE ADDED							
	FLOW (gpm)		NA					
DATE OF LAST SWABBING	TOTAL (gal.)		0 ft					
	STAFF GAUGES							
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)							
	INLET RIVER - WATER LEVEL (ft)		-1.86'					
	CROTTY STREET - WATER LEVEL (ft)		0.02'					

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSH	9/22/11	field book	used onsite
Site Log Book	Monthly			ll	ll
Extraction Well Water Levels	Monthly			collected	
Inspection	Monthly			continue from bacteria problems	
Maintenance	Monthly - As Required			pull, clean + replace as necessary	
Level Transmitter Inspection	Monthly			NA	
Maintenance	Monthly - As Required			/	
Calibration	Semi-Annually				
Control Panel Inspection	Monthly			good condition	
Maintenance	Monthly - As Required			none	
Air Supply Manifold Inspection	Monthly			by GM - from powerhouse	
Air Compressor Maintenance	Monthly - As Required			NA	
Heater Check	Monthly (Winter Season)			"off"	turn on in Oct./Nov.
Maintenance	Monthly - As Required			none	

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	9/22/11	sample in August	
Water Levels	As required			collected in Aug.	
General Maintenance	As required			RNT Wildlife Control onsite trapping varmints	
Force Main Cleaning	As required			2011	
Flowmeter Cleaning	As required			NA	
Spare Parts Inventory	As used			continue to re-use/swapp parts	
Staff Gauges Water Levels	As Required			collected	
Exposure Barriers	Monthly			no excavations/digging	
Multi-Layer Cap	Monthly			good vegetation - catching varmints	
Containment System	Monthly			tieback rod appears loose by crotty slip/river	
Stormwater Collection System	Monthly			no flow	
Crotty Street Channel Abandoned 60" Sewer	Monthly			normal level	

* Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
MACHINE STORAGE AREA		9/22	SS14					
EW-6	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	12.74	12.53					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-7	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.00	11.22					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-8	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.34	12.44					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-9	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	11.04	10.85					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-10	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	10.77	14.95	10.79				product at 13.95 ↓
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-11	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	14.51	14.97					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-12	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT	9.42	13.13					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-01	FLOW (gpm)		NA					
	TOTAL (gal.)		NA					
LT-01			OK					
CP-01			5.2 CA					
AIR SUPPLY MANIFOLD			2 FF					
HEATER								
DATE OF LAST SWABBING								

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

EW#	CROTTY STREET CHANNEL	NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)	SSH	9/22					
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 7.33	8.69						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 5.42	10.17						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft.) TARGET DEPT 6.71	8.11						
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-03	FLOW (gpm)							
	TOTAL (gal.)	NA						
HEATER								
DATE OF LAST SWABBING		0 ft						
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)	0.22'						
	INLET RIVER - WATER LEVEL (ft)							
	CROTTY STREET - WATER LEVEL (ft)	below gauge						

O&M LOG
 CSC/MSA
 BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
O&M Log	Monthly	SSH	10/25/11	field log book	
Site Log Book	Monthly			OK	
Extraction Well Water Levels	Monthly			collected	
Inspection	Monthly			iron bacteria buildup	
Maintenance	Monthly - As Required			continue to pull & clean	
Level Transmitter Inspection	Monthly				
Maintenance	Monthly - As Required				
Calibration	Semi-Annually				
Control Panel Inspection	Monthly				OK
Maintenance	Monthly - As Required				none required
Air Supply Manifold Inspection	Monthly				by GM
Air Compressor Maintenance	Monthly - As Required				
Heater Check	Monthly (Winter Season)		"off"		
Maintenance	Monthly - As Required		turn "on" in	December	

U&M LOG
CSC/MSA
BAY CITY, MICHIGAN

Description	Frequency	Inspected By (Print)	Date	Inspection Results (1)	Nature of Maintenance/Repairs (1)
Monitoring Well Sampling	As Required	SSH	10/25/11	annually in Aug	
Water Levels	As required			o i o i	
General Maintenance	As required				
Force Main Cleaning	As required			lots of rain - over 2 1/2" - MSA wet	
Flowmeter Cleaning	As required			requires scheduling	
Spare Parts Inventory	As used				
Staff Gauges				continue to clean + reuse parts	
Water Levels	As Required			collected	
Exposure Barriers	Monthly				
Multi-Layer Cap	Monthly			no excavations	
Containment System	Monthly			very wet	collect storm water sample
Stormwater Collection System	Monthly			some repair required	
rotty Street Channel bonded 60" Sewer	Monthly			flowing - sample collected	
				normal level	

Note: All of the suggested frequencies are minimums and additional maintenance may be required
 (1) - Attach additional documentation.

O&M LOG
CSC/MSA
BAY CITY, MICHIGAN

		NAME	DATE	NAME	DATE	NAME	DATE	NOTES, DESCRIPTION OF MAINT., SPARE PARTS USED
EW#	CROTTY STREET CHANNEL	SSB	10/25					
EW-13	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 7.33		2.71					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-14	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 5.42		7.25					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
EW-15	PUMP CYCLING BEFORE/AFTER MAINTENANCE (count/min)							
	AIR PRESSURE (psi)							
	DEPTH TO WATER/LNAPL (ft) TARGET DEPT 6.71		2.94					
	PUMP CHANGED (Y/N)							
	CHLORINE ADDED							
FQIT-03	FLOW (gpm)							
	TOTAL (gal.)							
HEATER								
DATE OF LAST SWABBING								
STAFF GAUGES	INLET SLIP - WATER LEVEL (ft)							
	INLET RIVER - WATER LEVEL (ft)							
	CROTTY STREET - WATER LEVEL (ft)		below gauge					

ATTACHMENT B
GROUNDWATER DATA

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date:	Crotty Street Channel CB-2 W-040506-SSH-CB04 4/5/2006	Crotty Street Channel CB-2 W-031307-SSH-CB07-4 3/13/2007	Crotty Street Channel CB-2 CB2_8/27/07 8/27/2007	Crotty Street Channel CB-2 CB2-(06/11/08) 6/11/2008	Crotty Street Channel CB-2 CB2_(08/19/08) 8/19/2008	Crotty Street Channel CB-2 CB2_(03/12/09) 3/12/2009	Crotty Street Channel CB-2 W-12610-032410-SSH-CB10-1 3/24/2010
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Michigan Residential
 Drinking water
 criteria

Parameters:

Units

Metals

Parameters:	Units	Michigan Residential Drinking water criteria	Crotty Street Channel CB-2 W-040506-SSH-CB04 4/5/2006	Crotty Street Channel CB-2 W-031307-SSH-CB07-4 3/13/2007	Crotty Street Channel CB-2 CB2_8/27/07 8/27/2007	Crotty Street Channel CB-2 CB2-(06/11/08) 6/11/2008	Crotty Street Channel CB-2 CB2_(08/19/08) 8/19/2008	Crotty Street Channel CB-2 CB2_(03/12/09) 3/12/2009	Crotty Street Channel CB-2 W-12610-032410-SSH-CB10-1 3/24/2010
Antimony	mg/L	0.006	-	-	-	-	-	-	-
Arsenic	mg/L	0.01	-	-	-	-	-	-	-
Barium	mg/L	2	-	-	-	-	-	-	-
Beryllium	mg/L	0.004	-	-	-	-	-	-	-
Cadmium	mg/L	0.005	-	-	-	-	-	-	-
Chromium	mg/L	0.1	-	-	-	-	-	-	-
Cobalt	mg/L	0.04	-	-	-	-	-	-	-
Copper	mg/L	1	-	-	-	-	-	-	-
Lead	mg/L	0.004	-	-	-	-	-	-	-
Mercury	mg/L	0.002	-	-	-	-	-	-	-
Nickel	mg/L	0.1	-	-	-	-	-	-	-
Selenium	mg/L	0.05	-	-	-	-	-	-	-
Silver	mg/L	0.034	-	-	-	-	-	-	-
Thallium	mg/L	0.002	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	0.0045	-	-	-	-	-	-	-
Zinc	mg/L	2.4	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.5	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI:	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel	Crotty Street Channel
Sample Location:	CB-2	CB-2	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge	CSA GW Ext. Sys. Discharge
Sample ID:	W-12610-040611-SSH-11103	W-12610-040611-SSH-11104	W-040506-SSH-C03	GW-081606-SSH-0601	W-031307-SSH-C07-3	CSC
Sample Date:	4/6/2011	4/6/2011 (Duplicate)	4/5/2006	8/16/2006	3/13/2007	8/23/2007

Parameters: **Units****Metals**

Antimony	mg/L	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	0.20 U	0.36	0.47	0.23 J	0.51
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date:	Crotty Street Channel CSA GW Ext. Sys. Discharge CSC-(06/11/08)	Crotty Street Channel CSA GW Ext. Sys. Discharge DUP-(06/11/08) (Duplicate)	Crotty Street Channel CSA GW Ext. Sys. Discharge CSC_(08/19/08)	Crotty Street Channel CSA GW Ext. Sys. Discharge CSC_(03/12/09)	Crotty Street Channel CSA GW Ext. Sys. Discharge CSC	Crotty Street Channel CSA GW Ext. Sys. Discharge W-12610-043010-SSH-CSC-4
	6/11/2008	6/11/2008	8/19/2008	3/12/2009	8/27/2009	4/30/2010
Parameters:	Units					
Metals						
Antimony	mg/L	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-
Barium	mg/L	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-
Copper	mg/L	-	-	-	-	-
Lead	mg/L	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-
Silver	mg/L	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-
Tin	mg/L	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-
Polychlorinated Biphenyls						
Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Aroclor-1242 (PCB-1242)	µg/L	0.074 J	0.077 J	0.38	0.14 J	0.20 UJ
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 UJ

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

0.75	0.59 J
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ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date:	Crotty Street Channel CSA GW Ext. Sys. Discharge GW-12610-081910-SSH-026 8/19/2010	Crotty Street Channel CSA GW Ext. Sys. Discharge GW-12610-081910-SSH-027 8/19/2010 (Duplicate)	Crotty Street Channel CSA GW Ext. Sys. Discharge W-12610-040611-SSH-11102 4/6/2011	Crotty Street Channel CSA GW Ext. Sys. Discharge GW-12610-082211-JY-002 8/22/2011	Machine Storage Area MSA GW Ext. Sys. Discharge W-040506-SSH-M02 4/5/2006	Machine Storage Area MSA GW Ext. Sys. Discharge GW-081606-SSH-0602 8/16/2006	
Parameters:	Units						
Metals							
Antimony	mg/L	-	-	-	-	-	
Arsenic	mg/L	-	-	-	-	-	
Barium	mg/L	-	-	-	-	-	
Beryllium	mg/L	-	-	-	-	-	
Cadmium	mg/L	-	-	-	-	-	
Chromium	mg/L	-	-	-	-	-	
Cobalt	mg/L	-	-	-	-	-	
Copper	mg/L	-	-	-	-	-	
Lead	mg/L	-	-	-	-	-	
Mercury	mg/L	-	-	-	-	-	
Nickel	mg/L	-	-	-	-	-	
Selenium	mg/L	-	-	-	-	-	
Silver	mg/L	-	-	-	-	-	
Thallium	mg/L	-	-	-	-	-	
Tin	mg/L	-	-	-	-	-	
Vanadium	mg/L	-	-	-	-	-	
Zinc	mg/L	-	-	-	-	-	
Polychlorinated Biphenyls							
Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.62	0.63	0.20 U	0.96	0.20 U	0.62
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.044 J	0.18 J	0.24

Notes:

- J - Estimated concentration.
U - Not present at or above the associated value.
UJ - Estimated reporting limit.
- - Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date:		Machine Storage Area MSA GW Ext. Sys. Discharge W-031307-SSH-M07-2 3/13/2007	Machine Storage Area MSA GW Ext. Sys. Discharge MSA 8/23/2007	Machine Storage Area MSA GW Ext. Sys. Discharge MSA-(06/11/08) 6/11/2008	Machine Storage Area MSA GW Ext. Sys. Discharge MSA_(08/19/08) 8/19/2008	Machine Storage Area MSA GW Ext. Sys. Discharge DUP_(03/12/09) 3/12/2009 (Duplicate)	Machine Storage Area MSA GW Ext. Sys. Discharge MSA_(03/12/09) 3/12/2009
Parameters:	Units						
Metals							
Antimony	mg/L	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-
Polychlorinated Biphenyls							
Aroclor-1016 (PCB-1016)	µg/L	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	1.0 U	0.20 U	0.20 U	0.25	0.20 U	2.1
Aroclor-1248 (PCB-1248)	µg/L	1.0 U	0.30	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	1.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	1.0 U	0.26	0.20 U	0.28	0.20 U	0.20

Notes:

J - Estimated concentration.
U - Not present at or above
the associated value.
UJ - Estimated reporting
limit.
- - Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date:	Machine Storage Area MSA GW Ext. Sys. Discharge MSA	Machine Storage Area MSA GW Ext. Sys. Discharge W-12610-032410-SSH-MSA10-2	Machine Storage Area MSA GW Ext. Sys. Discharge GW-12610-081910-SSH-028	Machine Storage Area MSA GW Ext. Sys. Discharge W-12610-040611-SSH-11101	Machine Storage Area MSA GW Ext. Sys. Discharge GW-12610-082211-JY-001	Machine Storage Area MW102D1 GW-081606-SSH-0604	Machine Storage Area MW102D1 MW102D1
	8/27/2009	3/24/2010	8/19/2010	4/6/2011	8/22/2011	8/16/2006	8/21/2007
Parameters:	Units						
Metals							
Antimony	mg/L	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-
Polychlorinated Biphenyls							
Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	1.3	0.20 U	0.20 U	0.13 J	0.19 U	0.44
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.17 J	0.20 U	0.19 U	0.20 U

Notes:

J - Estimated concentration.
U - Not present at or above the associated value.
UJ - Estimated reporting limit.
- - Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

<i>AOI:</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>	<i>Machine Storage Area</i>
<i>Sample Location:</i>	MW102D1	MW102D1	MW102D1	MW102D1	MW102D2	MW102D2	MW102D2	MW102D2	MW102D2
<i>Sample ID:</i>	MW102D1_(08/19/08)	MW102D1	GW-12610-081710-JY-001	GW-12610-082311-JY-010	GW-081606-SSH-0606	MW102D2	MW102D2_(08/19/08)	MW102D2	MW102D2
<i>Sample Date:</i>	8/19/2008	8/26/2009	8/17/2010	8/23/2011	8/16/2006	8/21/2007	8/19/2008	8/26/2009	

Parameters: **Units****Metals**

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	0.40 J	0.31	0.28	0.20 U	0.20 U	0.20 U	0.073 J
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 UJ	0.20 U	0.046 J	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- - Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI:	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area
Sample Location:	MW102D2	MW102D2	MW102D3	MW102D3	MW102D3	MW102D3	MW102D3	MW102D3	MW102D4
Sample ID:	GW-12610-081710-JY-002	GW-12610-082311-JY-011	GW-081606-SSH-0607	MW102D3	MW102D3_08/19/08	MW102D3	GW-12610-081710-JY-003	GW-081606-SSH-0605	
Sample Date:	8/17/2010	8/23/2011	8/16/2006	8/21/2007	8/19/2008	8/26/2009	8/17/2010	8/16/2006	

Parameters: **Units****Metals**

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.13 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

J - Estimated concentration.
U - Not present at or above the associated value.
UJ - Estimated reporting limit.
- - Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	
Sample Location:	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW102D4	MW300S	MW300S	MW300S
Sample ID:	MW102D4	MW102D4_(08/19/08)	MW102D4	GW-12610-081710-JY-004	GW-12610-082311-JY-012	GW-081706-SSH-0608	GW-081706-SSH-0609	GW-081706-SSH-0609	MW300S
Sample Date:	8/21/2007	8/19/2008	8/26/2009	8/17/2010	8/23/2011	8/17/2006	8/17/2006	8/17/2006 (Duplicate)	8/21/2007

Parameters: Units

Metals

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	0.20 U	0.20 U	0.084 J	0.082 J	0.11 J	0.095 J	0.24
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Machine Storage Area	Perimeter Banks
Sample Location:	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	MW300S	LMW13S
Sample ID:	MW300S_(08/19/08)	DUP 4	MW300S	GW-12610-081810-JY-011	GW-12610-081810-JY-012	GW-12610-082311-JY-004	GW-12610-082311-JY-005	GW-12610-082311-JY-005	GW-081706-SSH-0610
Sample Date:	8/19/2008	8/26/2009 (Duplicate)	8/26/2009	8/18/2010	8/18/2010 (Duplicate)	8/23/2011	8/23/2011 (Duplicate)	8/23/2011 (Duplicate)	8/17/2006

Parameters: Units

Metals

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.21	0.40 J	0.39 J	0.14 J	0.16 J	0.23	0.24	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.19 U	1.2
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 UJ	0.20 UJ	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:	LMW13S	LMW13S	LMW13S	LMW13S	LMW15D	LMW15D	LMW15D	LMW15D	LMW15D
Sample ID:	LMW13S	LMW13S_(08/18/08)	GW-12610-081710-JY-009	GW-12610-082311-JY-006	GW-081706-SSH-0611	LMW15D	LMW15D_(08/18/08)	MW15D	GW-12610-081710-JY-010
Sample Date:	8/21/2007	8/18/2008	8/17/2010	8/23/2011	8/17/2006	8/21/2007	8/18/2008	8/26/2009	8/17/2010

Parameters: Units

Metals

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	1.0	0.20 U	0.20 U	0.72	0.20 U	0.20 U	0.19 J	0.073 J	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	1.6	1.1	0.19 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 UJ	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:	LMW15D	MW301D1	MW301D1	MW301D1	MW301D1	MW301D1	MW301D1	MW301D2	MW301D2
Sample ID:	GW-12610-082311-JY-007	GW-081706-SSH-0612	MW301D1	MW301D1_ (08/19/08)	MW301D1	GW-12610-081710-JY-005	GW-081706-SSH-0615	MW301D2	MW301D2_ (08/19/08)
Sample Date:	8/23/2011	8/17/2006	8/21/2007	8/19/2008	8/26/2009	8/17/2010	8/17/2006	8/21/2007	8/19/2008

Parameters: Units

Metals

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.060 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks
Sample Location:	MW301D2	MW301D2	MW301D2	MW301D3	MW301D3	MW301D3	MW301D3	MW301D3	MW301D4
Sample ID:	MW301D2	GW-12610-081710-JY-006	GW-12610-082311-JY-008	GW-081706-SSH-0614	MW301D3	MW301D3_(08/19/08)	MW301D3	GW-12610-081710-JY-007	GW-12610-082311-JY-009
Sample Date:	8/26/2009	8/17/2010	8/23/2011	8/17/2006	8/21/2007	8/19/2008	8/26/2009	8/17/2010	8/23/2011

Parameters: Units

Metals

Antimony	mg/L	-	-	-	-	-	-	-	-
Arsenic	mg/L	-	-	-	-	-	-	-	-
Barium	mg/L	-	-	-	-	-	-	-	-
Beryllium	mg/L	-	-	-	-	-	-	-	-
Cadmium	mg/L	-	-	-	-	-	-	-	-
Chromium	mg/L	-	-	-	-	-	-	-	-
Cobalt	mg/L	-	-	-	-	-	-	-	-
Copper	mg/L	-	-	-	-	-	-	-	-
Lead	mg/L	-	-	-	-	-	-	-	-
Mercury	mg/L	-	-	-	-	-	-	-	-
Nickel	mg/L	-	-	-	-	-	-	-	-
Selenium	mg/L	-	-	-	-	-	-	-	-
Silver	mg/L	-	-	-	-	-	-	-	-
Thallium	mg/L	-	-	-	-	-	-	-	-
Tin	mg/L	-	-	-	-	-	-	-	-
Vanadium	mg/L	-	-	-	-	-	-	-	-
Zinc	mg/L	-	-	-	-	-	-	-	-

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.085 J	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 UJ	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI:	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Perimeter Banks	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area
Sample Location:	MW301D4	MW301D4	MW301D4	MW301D4	MW301D4	MW301D4	MW10S	MW10S	MW10S	MW10S
Sample ID:	GW-081706-SSH-0613	MW301D4	DUP3_(08/19/08)	MW301D4_(08/19/08)	MW301D4	GW-12610-081710-JY-008	GW-082106-SSH-0640	MW10S	MW10S_(08/20/08)	MW10S
Sample Date:	8/17/2006	8/21/2007	8/19/2008	8/19/2008	8/26/2009	8/17/2010	8/21/2006	8/23/2007	8/20/2008	8/25/2009

Parameters: Units

Metals

Antimony	mg/L	-	-	-	-	-	0.00042 J	0.00047 J	0.0022	0.002 U
Arsenic	mg/L	-	-	-	-	-	0.0013 J	0.0048	0.0094	0.001 J
Barium	mg/L	-	-	-	-	-	0.45	0.361	0.837	0.368
Beryllium	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	-	-	-	-	-	0.00019 J	0.00027 J	0.0064	0.001 U
Chromium	mg/L	-	-	-	-	-	0.0035	0.0016 J	0.0679	0.0024
Cobalt	mg/L	-	-	-	-	-	0.0013	0.0009 J	0.0013	0.00046 J
Copper	mg/L	-	-	-	-	-	0.0029 U	0.0023	0.206	0.002 U
Lead	mg/L	-	-	-	-	-	0.0091	0.009	0.525	0.0049
Mercury	mg/L	-	-	-	-	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	-	-	-	-	-	0.0108	0.0176	0.038	0.002
Selenium	mg/L	-	-	-	-	-	0.0034 J	0.0029 U	0.002 U	0.002 U
Silver	mg/L	-	-	-	-	-	0.001 UJ	0.001 U	0.00034 J	0.001 U
Thallium	mg/L	-	-	-	-	-	0.001 U	0.001 U	0.00023 J	0.001 U
Tin	mg/L	-	-	-	-	-	0.00047 J	0.01 U	0.009 J	0.01 U
Vanadium	mg/L	-	-	-	-	-	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	mg/L	-	-	-	-	-	1.59	5.82	40.8	0.822

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	0.12 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.40 U	1.0 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI:	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area
Sample Location:	MW10S	MW10S	MW501D	MW501D	MW501D	MW501D	MW501D	MW501D
Sample ID:	GW-12610-083010-SSH-038	GW-12610-082411-JY-016	GW-082106-SSH-0641	MW501D	MW501D_(08/20/08)	MW501D	GW-12610-083110-SSH-043	GW-12610-082411-JY-018
Sample Date:	8/30/2010	8/24/2011	8/21/2006	8/22/2007	8/20/2008	8/25/2009	8/31/2010	8/24/2011

Parameters: Units

Metals

Antimony	mg/L	0.00014 J	0.00023 J	0.00034 J	0.00027 J	0.00014 J	0.00015 J	0.002 U	0.002 U
Arsenic	mg/L	0.0011 J	0.0021	0.0987	0.0723	0.0208	0.0406	0.0049	0.0097
Barium	mg/L	0.358	0.4	4.7	4.49	6.11	6.15	4.31	5
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 UJ	0.00024 J	0.00013 J	0.001 U	0.001 U	0.001 U	0.001 UJ
Chromium	mg/L	0.0021	0.0026	0.0013 J	0.002 U	0.0022	0.0021	0.002 U	0.002 U
Cobalt	mg/L	0.00038 J	0.00044 J	0.0075	0.0042	0.00036 J	0.00046 J	0.00027 J	0.00047 J
Copper	mg/L	0.002 U	0.0024 U	0.009	0.0059	0.0019 J	0.0036 U	0.002 U	0.002 U
Lead	mg/L	0.002	0.0086	0.001 U	0.00042 J	0.00044 J	0.00037 J	0.001 U	0.001 U
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0016 J	0.0024	0.0537	0.0411	0.002 U	0.0018 J	0.002	0.0021
Selenium	mg/L	0.002 U	0.002 U	0.352 J	0.312	0.002 U	0.002 U	0.002 U	0.002 U
Silver	mg/L	0.001 U	0.001 U	0.00046 J	0.0003 J	0.00031 J	0.00034 J	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.00019 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tin	mg/L	0.01 U	0.01 U	0.00065 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium	mg/L	0.01 U	0.00056 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	mg/L	1.3	2.6	0.0076 J	0.0445	0.0111 J	0.02 U	0.02 U	0.02 U

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	1.0 U	0.39 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U
Aroclor-1221 (PCB-1221)	µg/L	1.0 U	0.39 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U
Aroclor-1232 (PCB-1232)	µg/L	1.0 U	0.39 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U
Aroclor-1242 (PCB-1242)	µg/L	3.7	0.39 U	0.20 U	0.20 U	0.15 J	0.20 U	0.20 U	0.19 U
Aroclor-1248 (PCB-1248)	µg/L	1.0 U	0.39 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U
Aroclor-1254 (PCB-1254)	µg/L	1.0 U	0.39 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U
Aroclor-1260 (PCB-1260)	µg/L	1.0 U	0.39 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.19 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI:	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area
Sample Location:	MW501S	MW501S	MW501S	MW501S	MW501S	MW502D	MW502D	MW502D	MW502D	MW502D
Sample ID:	GW-082106-SSH-0637	MW501S	MW501S_(08/20/08)	MW501S	GW-12610-083110-SSH-042	GW-082106-SSH-0638	GW-082106-SSH-0639	MW502D	MW502D_(08/19/08)	MW502D
Sample Date:	8/21/2006	8/22/2007	8/20/2008	8/25/2009	8/31/2010	8/21/2006	8/21/2006	8/22/2007	8/19/2008	8/25/2009

(Duplicate)

Parameters: Units

Metals

Antimony	mg/L	0.001 J	0.00013 J	0.002 U	0.002 U	0.002 U	0.00094 J	0.00052 J	0.00035 J	0.002 U	0.002 U
Arsenic	mg/L	0.0011 J	0.0034	0.00053 J	0.0011 J	0.00081 J	0.114	0.101	0.0848	0.0169	0.0266
Barium	mg/L	0.14	0.131	0.15	0.111	0.164	3.89	4.1	3.82	4.32	4.69
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.001 U
Cadmium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00032 J	0.00033 J	0.00016 J	0.001 U	0.001 U
Chromium	mg/L	0.0016 J	0.0027 U	0.0022	0.0026	0.0034	0.002	0.002 U	0.002 U	0.002 U	0.002 U
Cobalt	mg/L	0.00064 J	0.00044 J	0.00019 J	0.00019 J	0.00024 J	0.0081	0.0083	0.0048	0.00021 J	0.00034 J
Copper	mg/L	0.002 U	0.00068 J	0.002 U	0.002 U	0.002 U	0.0092	0.0098	0.0059	0.00062 J	0.002 U
Lead	mg/L	0.001 U	0.00013 J	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00033 J	0.001 U	0.0002 J
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0051	0.0054 U	0.002 U	0.0012 J	0.0015 J	0.0646	0.0548	0.0481	0.002 U	0.002
Selenium	mg/L	0.0026 J	0.0082	0.002 U	0.002 U	0.002 U	0.398 J	0.303 J	0.363	0.002 U	0.002 U
Silver	mg/L	0.000072 J	0.001 U	0.001 U	0.001 U	0.001 U	0.00038 J	0.00032 J	0.00021 J	0.000085 J	0.00042 J
Thallium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tin	mg/L	0.0013 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0023 J	0.00084 J	0.01 U	0.01 U	0.01 U
Vanadium	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0155 J	0.0151 J	0.02 U	0.0075 J	0.02 U

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.084 J	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	1.0 U	0.20 U	0.20 UJ	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area
Sample Location:	MW502D	MW502D	MW503D	MW503D	MW503D	MW503D	MW503D	MW503D	MW503D
Sample ID:	GW-12610-083010-SSH-039	GW-12610-082411-JY-015	GW-081806-SSH-0629	DUP3	MW503D	MW503D_08/19/08	MW503D	GW-12610-083010-SSH-037	GW-12610-082311-JY-013
Sample Date:	8/30/2010	8/24/2011	8/18/2006	8/21/2007	8/21/2007	8/19/2008	8/26/2009	8/30/2010	8/23/2011

(Duplicate)

Parameters: Units

Metals

Antimony	mg/L	0.002 U	0.0002 J	0.00032 J	0.00021 J	0.00058 J	0.002 U	0.002 U	0.002 U	0.002 U
Arsenic	mg/L	0.009	0.0054	0.153	0.108	0.122	0.0543	0.0893	0.0545	0.053
Barium	mg/L	3.83	4.2	2.52	2.51	2.63	2.7	2.98	2.46	2.7
Beryllium	mg/L	0.005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.001 U	0.001 U	0.005 U
Cadmium	mg/L	0.001 U	0.001 UJ	0.00011 J	0.00013 J	0.00015 J	0.001 U	0.001 U	0.001 U	0.001 UJ
Chromium	mg/L	0.002 U	0.002 U	0.002 U	0.0043 J	0.014 J	0.002 U	0.0037	0.002 U	0.0052 J
Cobalt	mg/L	0.00024 J	0.00053 J	0.004	0.0043	0.0045	0.00064 J	0.0023	0.00092 J	0.0025
Copper	mg/L	0.002 U	0.002 U	0.006	0.0051	0.0057	0.00047 J	0.0067	0.002 U	0.002 U
Lead	mg/L	0.001 U	0.00087 J	0.001 U	0.00032 J	0.00057 J	0.00022 J	0.00079 J	0.001 U	0.00024 J
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.003	0.0032	0.0447	0.0377	0.0403	0.002 U	0.0505	0.0088	0.024
Selenium	mg/L	0.002 U	0.002 U	0.285	0.278	0.338	0.002 U	0.002 U	0.002 U	0.002 U
Silver	mg/L	0.0002 J	0.001 U	0.00012 J	0.00034 J	0.00038 J	0.001 U	0.00039 J	0.001 U	0.001 U
Thallium	mg/L	0.001 U	0.0014 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00097 J
Tin	mg/L	0.01 U	0.01 U	0.00043 J	0.01 U	0.00037 J	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.0119 J	0.02 U	0.02 U

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	-

Notes:

- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
RACER - MSA/CSC, BAY CITY PLANT
BAY CITY, MICHIGAN

AOI:	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area
Sample Location:	MW503D	MW503S	MW503S	MW503S	MW503S	MW503S	MW503S	MW504S	MW504S	MW504S
Sample ID:	GW-12610-082311-JY-014	GW-081806-SSH-0628	MW503S	MW503S_(08/19/08)	MW503S	GW-12610-083010-SSH-036	GW-082106-SSH-0642	MW504S	MW504S_(08/20/08)	MW504S
Sample Date:	8/23/2011 (Duplicate)	8/18/2006	8/21/2007	8/19/2008	8/26/2009	8/30/2010	8/21/2006	8/22/2007	8/20/2008	8/25/2009

Parameters: Units

Metals

Antimony	mg/L	0.002 U	0.00011 J	0.000085 J	0.002 U	0.002 U	0.002 U	0.00011 J	0.0001 J	0.002 U	0.002 U
Arsenic	mg/L	0.054	0.0023	0.005	0.0058	0.0075	0.0088	0.0084	0.005	0.00049 J	0.0015 J
Barium	mg/L	2.8	0.282	0.229	0.29	0.149	0.125	0.586	0.47	0.319	0.361
Beryllium	mg/L	0.005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0002 J	0.00036 J	0.001 U
Chromium	mg/L	0.0024 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0061	0.007 U	0.011	0.0096
Cobalt	mg/L	0.0023	0.0015	0.0016	0.0024	0.0029	0.0017	0.0012	0.00069 J	0.00029 J	0.00033 J
Copper	mg/L	0.002 U	0.002 U	0.0012 J	0.002 U	0.002 U	0.002 U	0.002 U	0.0015 J	0.0026	0.002 U
Lead	mg/L	0.00018 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.00025 J	0.00026 J	0.00035 J
Mercury	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.019	0.0104	0.0066	0.0017 J	0.0018 J	0.0014 J	0.01	0.0096	0.0043	0.0042
Selenium	mg/L	0.002 U	0.0032	0.0046	0.002 U	0.002 U	0.002 U	0.0294 J	0.019	0.002 U	0.002 U
Silver	mg/L	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ	0.001 U	0.001 U	0.001 U
Thallium	mg/L	0.00031 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Tin	mg/L	0.01 U	0.00031 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.00044 J	0.01 U	0.01 U
Vanadium	mg/L	0.01 U	0.00052 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Zinc	mg/L	0.02 U	0.02 U	0.02 U	0.02 U	0.005 J	0.02 U	0.0092 J	0.0229 U	0.0119 J	0.02 U

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.087 J	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.065 J	0.15 J
Aroclor-1248 (PCB-1248)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	-	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

J - Estimated concentration.
U - Not present at or above the associated value.
UJ - Estimated reporting limit.
- - Not analyzed.

ATTACHMENT B

ANALYTICAL RESULTS SUMMARY
 RACER - MSA/CSC, BAY CITY PLANT
 BAY CITY, MICHIGAN

AOI:	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area	Undevel. Area
Sample Location:	MW504S	MW504S	MW506S	MW506S	MW506S	MW506S	MW506S	MW506S
Sample ID:	GW-12610-083110-SSH-041	GW-12610-082411-JY-017	GW-081806-SSH-0627	DUP4	MW506S	MW506S_(08/20/08)	MW506S	GW-12610-083010-SSH-040
Sample Date:	8/31/2010	8/24/2011	8/18/2006	8/22/2007 (Duplicate)	8/22/2007	8/20/2008	8/27/2009	8/30/2010

Parameters: Units

Metals

Antimony	mg/L	0.002 U	-	0.00031 J	0.00016 J	0.00014 J	0.00024 J	0.00013 J	0.00018 J
Arsenic	mg/L	0.001 J	-	0.00089 J	0.003	0.0023 U	0.00053 J	0.00075 J	0.0015 J
Barium	mg/L	0.697	-	0.0188	0.0202	0.0207	0.0191	0.0224	0.0196
Beryllium	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Chromium	mg/L	0.0053	-	0.002 U	0.002 U	0.002 U	0.0009 J	0.00094 J	0.0009 J
Cobalt	mg/L	0.0004 J	-	0.00069 J	0.0006 J	0.00054 J	0.00016 J	0.00012 J	0.00013 J
Copper	mg/L	0.002 U	-	0.002 U	0.0014 J	0.0015 J	0.002 U	0.002 U	0.002 U
Lead	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Mercury	mg/L	0.0002 U	-	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Nickel	mg/L	0.0027	-	0.0102	0.0077	0.0069	0.002 U	0.00082 J	0.002 U
Selenium	mg/L	0.002 U	-	0.0023	0.0068	0.0051	0.002 U	0.002 U	0.002 U
Silver	mg/L	0.001 U	-	0.000053 J	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Thallium	mg/L	0.001 U	-	0.001 U	0.001 U	0.001 U	0.00054 J	0.001 U	0.001 U
Tin	mg/L	0.01 U	-	0.00056 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Vanadium	mg/L	0.01 U	-	0.0023 J	0.0019 J	0.002 J	0.0028 J	0.0025 J	0.01 U
Zinc	mg/L	0.0208 U	-	0.02 U	0.02 U	0.02 U	0.0058 J	0.02 U	0.02 U

Polychlorinated Biphenyls

Aroclor-1016 (PCB-1016)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1221 (PCB-1221)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1232 (PCB-1232)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1242 (PCB-1242)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1248 (PCB-1248)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1254 (PCB-1254)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Aroclor-1260 (PCB-1260)	µg/L	0.20 U	0.19 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:


- J - Estimated concentration.
- U - Not present at or above the associated value.
- UJ - Estimated reporting limit.
- Not analyzed.

ATTACHMENT C
DATA VALIDATION REPORT



MEMORANDUM

TO: Mike Tomka

FROM: Paul Wiseman/ma/15/Det 

RE: Data Quality Assessment and Reduced Validation
Semi-annual Groundwater Sampling – April 2011
RACER: GMPT Bay City – Bay City, Michigan

REF. NO.: 12610

DATE: May 24, 2011

The following details a quality assessment and validation of the analytical data resulting from the April 6, 2011 collection of three (3) groundwater samples and one (1) quality control sample from the RACER: GMPT Bay City Site in Bay City, Michigan. The sample summary detailing sample identification, sample location, quality control samples, and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica in North Canton, Ohio (TA) in accordance with the methodologies presented in Table 2.

The quality control criteria used to assess the data were established by the methods and the quality assurance project plan (QAPP). Application of quality assurance criteria was consistent with following guidance document:

- i. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", EPA-540/R-99/008, October 1999.

This guideline is referred to as "NFGs" in this Memorandum.

Sample Preservation and Holding Times

Sample holding time periods and preservation requirements are presented in Table 2. The samples were prepared and/or analyzed within the specified holding time periods. The samples were shipped and maintained in accordance with the sample preservation requirements.

Method Blank Samples

Method blank samples are prepared from a purified sample matrix and are processed concurrently with investigative samples to assess the presence and the magnitude of sample contamination introduced during sample analysis. Method blank samples are analyzed at a minimum frequency of one per analytical batch and target analytes should be non-detect.

The method blank sample was reported to be free from detectable levels of target analytes, indicating no laboratory-attributable contamination occurred.

Surrogate Compounds – Organic Analyses

Individual sample performance for organic analyses was monitored by assessing the results of surrogate compound percent recoveries. Surrogate percent recoveries are reviewed against the laboratory developed control limits provided in the analytical report.

The surrogate recovery acceptance criteria were met for all samples that could be evaluated.

Matrix Spike/Matrix Spike Duplicate Analyses

To assess the long term accuracy and precision of the analytical methods on various matrices, matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and the relative percent difference (RPD) of the concentrations were determined. The organic MS/MSD percent recovery and RPD control limits are established by the laboratory.

If MS/MSD analyses could not be completed in an analytical batch due to insufficient sample volume; precision and accuracy were verified by the analysis of the laboratory control sample/laboratory control duplicate (LCS/LCD).

Laboratory Control Sample Analyses

The laboratory control sample (LCS) analyses serves as a monitor of the overall performance in all steps of the sample analysis and is analyzed with each sample batch. The LCS percent recoveries were evaluated against method and laboratory established control limits.

The LCS percent recoveries were within the laboratory control limits or did not warrant qualification, indicating that an acceptable level of overall performance was achieved.

Field Quality Assurance/Quality Control

The field quality assurance/quality control consisted of one (1) field duplicate sample set.

Field Duplicate Samples

Overall precision for the sampling event and laboratory procedures was monitored using the results of the field duplicate sample sets. The RPDs associated with these duplicate samples must be less than 50 and 100 percent for water and soil samples, respectively. If the reported concentration in either the investigative sample or its duplicate is less than five times the RL, the evaluation criteria is one or two times the RL value for water and soil samples, respectively.

No targeted analytes were reported as detected in the field duplicate sample set.

Overall Assessment

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used without qualification.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
 SEMI-ANNUAL GROUNDWATER SAMPLING - APRIL 2011
 RACER: GMPT BAY CITY
 BAY CITY, MICHIGAN

Sample Identification	Location	Matrix	QC Samples	Collection Date (mm/dd/yyyy)	Collection (hr:min)	Analysis/Parameters
CRA SDG No. 04-06	TA-NC Lot No. A1D070494					
W-12610-040611-SSH-11101	MSA GW Ext. Sys. Discharge	water		4/6/2011	9:15:00 AM	TCL PCB
W-12610-040611-SSH-11102	CSA GW Ext. Sys. Discharge	water	MS/MSD	4/6/2011	9:25:00 AM	TCL PCB
W-12610-040611-SSH-11103	CB-2	water		4/6/2011	9:30:00 AM	TCL PCB
W-12610-040611-SSH-11104	CB-2	water	DUP (-11103)	4/6/2011	9:33:00 AM	TCL PCB

Notes:

- DUP - Field Duplicate of the sample in parenthesis
- MS/MSD - Matrix Spike/Matrix Spike Duplicate
- PCB - Polychlorinated biphenyls
- QC - Quality Control
- TCL - Target Compound List

TABLE 2

SUMMARY OF ANALYTICAL METHODS, HOLDING TIME PERIODS, AND PRESERVATIVES
 SEMI-ANNUAL GROUNDWATER SAMPLING - APRIL 2011
 RACER: GMPT BAY CITY
 BAY CITY, MICHIGAN

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	<i>Preservation</i>
TCL PCB	SW-846 8082	Water	- 7 days from sample collection to extraction - 40 days from extraction to completion of analysis	Iced, 4 ± 2° C

Notes:

¹ SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 3rd Edition, and Promulgated updates, November 1986

TCL - Target Compound List

PCB - Polychlorinated biphenyls