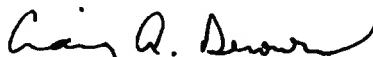




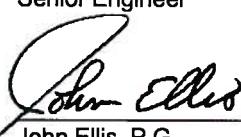
**2011 First Semiannual
Groundwater Monitoring
Report**

Hattiesburg, Mississippi
MDEQ AI No. 2022

10 October 2011



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MDEQ A.I. No. 2022

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1. Introduction

Hercules Incorporated (Hercules) commissioned Eco-Systems, Inc. (Eco-Systems) to conduct groundwater and surface water monitoring at the Hattiesburg, Mississippi facility (Figure 1). The sampling was conducted in accordance with the *Corrective Action Plan Revision 01* (CAP) prepared by Groundwater & Environmental Services, Inc., dated January 20, 2005. The CAP was approved by the Mississippi Department of Environmental Quality (MDEQ) in a letter dated January 25, 2005, and modified by MDEQ in an August 18, 2006, letter. The eight quarterly monitoring events specified in the CAP were completed in May 2007 and discussed in the second Annual Monitoring Report (Eco-Systems August 2007). In accordance with MDEQ's approval of Hercules' recommendation in the 2007 Annual Monitoring Report, surface water and groundwater monitoring is currently conducted on a semiannual basis.

This report describes sampling activities and analytical results for the first semiannual monitoring event for 2011. During this event, water levels were measured at 23 monitoring wells and 13 piezometers, surface water samples were collected from six locations in Greens Creek, and groundwater samples were collected from 23 monitoring wells. The site layout, location of monitoring wells and piezometers, and location of Greens Creek are illustrated on Figure 2.

As required by the approved CAP, surface water and groundwater samples collected during monitoring events are analyzed for selected volatile organic compounds (VOCs) and/or Delnav compounds (Dioxathion/Dioxenethion). A summary of the 2011 semiannual monitoring program is provided on Table 1. Sampling results are compared to MDEQ Tier 1 Target Remedial Goals (TRGs) as referenced in the Final Regulations Governing Brownfields Voluntary Cleanup and Redevelopment in Mississippi (amended 28 February 2002). Future Delnav sampling events will continue to be coordinated with MDEQ.

Additionally, in July 2011, samples from a subset of the sampled groundwater wells (MW-2, MW-4, MW-12, MW-13, MW-17, MW-19, and MW-23) were analyzed for the full list of Appendix IX constituents. The Appendix IX sampling was conducted with consultation from MDEQ.

2. Regulatory Background

After site investigations conducted under the MDEQ Voluntary Evaluation Program were approved by MDEQ, Hercules submitted the 2005 CAP. The 2005 CAP

proposed a combination of institutional controls and monitored natural attenuation of groundwater and surface water. In January 2008, Hercules and MDEQ entered into a Restricted Use Agreed Order (RUAO; No. 5349 07) to restrict on-site land and groundwater use and document the compliance monitoring program and corrective action requirements described in the 2005 CAP. In conjunction with the RUAO, Hercules executed a Notice of Land Use Restrictions documenting that soil and groundwater contained benzene, chlorobenzene, carbon tetrachloride, chloroform, 1,1,2-dichloroethane, and toluene in excess of MDEQ TRGs. Since 2007, Hercules has conducted groundwater and surface water sampling to comply with the RUAO. Routine monitoring reports summarizing the results of each sampling event have been submitted to MDEQ.

The compliance monitoring program has been modified several times since submittal of the 2005 CAP. In 2006, the sampling frequency for Delnav was reduced from quarterly to annually. In 2007, the sampling frequency for groundwater and surface water was reduced from quarterly to semiannually. In 2009, five wells associated with assessment of the Impoundment Basin (IB) were installed and added to the sampling program. The monitoring program for groundwater and surface water is currently conducted on a semiannual basis and consists of water level gauging and analysis of select samples for VOCs (semiannually) and Delnav (annually).

The CAP included a contingency plan outlining specific actions required in each of the monitored areas if constituents of concern (COCs) are detected at concentrations in excess of MDEQ TRGs in select downgradient wells for three consecutive sampling events (Table 1).

3. Field Activities

3.1 Groundwater Elevation Measurements

On July 25, 2011, Eco-Systems personnel collected static groundwater levels from the monitoring wells and piezometers at the site (Table 2). These water level measurements were used to calculate groundwater elevations and evaluate general groundwater flow directions.

3.2 Groundwater Sample Collection

Groundwater sampling was conducted July 25 through 28, 2011. Prior to collecting groundwater samples, the monitoring wells were purged using a low flow/low stress

sampling method with a peristaltic pump. Purging was conducted until temperature, pH, specific conductance, and turbidity stabilized. Stabilization was considered to be met when temperature, pH, specific conductance, and turbidity readings varied by less than 10 percent for at least three consecutive readings. The water quality field parameters were measured with calibrated instruments and recorded in the field book along with the cumulative amount of water evacuated and time of batch parameter testing. Groundwater collection logs are attached as Appendix A.

Once field parameters stabilized, groundwater was collected directly into new, clean sample containers supplied by the analytical laboratory. During groundwater sample collection activities, field replicates were collected for quality assurance and quality control (QA/QC). Each replicate sample was collected by placing alternating aliquots into the parent sample container and each replicate sample container until the containers were filled.

The wells least likely to contain detectable constituent concentrations based upon historical data are generally sampled first. However, during the July 2011 sampling event, the wells with the highest known impacts (MW-8, MW-13, MW-17, MW-19, MW-21, and MW-23) were sampled first (on July 26, 2011) in order to expedite the receipt of results. The remaining wells were sampled on July 27 and 28, 2011.

Sample tubing used during purging and collection activities was disposed of after use. Subsequent to sampling, the sample containers were labeled, placed on ice, the cooler sealed and shipped to the designated off-site laboratory for analysis. Chain-of-custody documentation accompanied each sample cooler. Personnel involved in sampling used new, clean, disposable gloves for each sample point. All non-disposable sampling equipment was decontaminated as described in Section 3.5.

During this event, groundwater samples were collected from permanent Monitoring Wells MW-2 through MW-24 in accordance with Table 1. Groundwater samples were shipped via overnight courier to TestAmerica Laboratories, Inc. (TestAmerica) in Savannah, Georgia, for analysis.

3.3 Surface Water Sample Collection

On July 25, 2011, six surface water samples were collected from the previously established sampling stations along Greens Creek, CM-00 through CM-05. Samples were collected beginning with the most downstream location (CM-05) and proceeding upstream to each successive sampling location. Surface water samples were

5.5 Impoundment Basin

5.5.1 Semiannual Monitoring for Volatile Organic Compounds

Monitoring Wells MW-20, MW-21, MW-22, MW-23, and MW-24 are located in the vicinity of the IB. These wells were installed and initially sampled in September 2009 as part of a pre-closure investigation of the former IB Basin. Well MW-20 is located west of the IB in an upgradient position. Wells MW-23 and MW-24 are located east of the IB in downgradient positions. Wells MW-21 and MW-22 are located north and south of the IB, lateral to the predominant groundwater flow direction.

No VOCs were detected in upgradient Well MW-20 or the most downgradient well, MW-24.

Concentrations of benzene, chlorobenzene, chloroform, toluene, and methyl isobutyl ketone were detected above their respective TRGs in downgradient Well MW-23. Carbon disulfide was detected in MW-23 at a concentration less than the TRG. All remaining VOCs were detected below the laboratory reporting limit; however, sample dilution required because of matrix interference caused the reporting limits for many of the remaining VOCs to be greater than the applicable TRGs.

Benzene, chlorobenzene, chloroform, and toluene were detected at concentrations greater than their respective TRGs in the sample collected from Monitoring Well MW-21. All remaining VOCs were detected below reporting limits; however, sample dilution required because of matrix interference caused the reporting limits for many of the remaining VOCs to be greater than the applicable TRGs.

Benzene was detected at a concentration greater than the TRG in the sample collected from Monitoring Well MW-22. Chlorobenzene, methyl isobutyl ketone, and toluene were detected at concentrations less than their applicable TRGs. All remaining parameters were detected below the reporting limit; however, reporting limits were greater than TRGs for select VOCs.

5.5.2 Supplemental Sampling

Well MW-23 was selected for supplemental analysis of full Appendix IX constituents. In addition to the detected VOCs discussed above, 1,4-dioxane was detected in Well MW-23 at a concentration greater than the TRG. Various other SVOCs, metals, and sulfide were detected in MW-23 at concentrations less than applicable TRGs. All

remaining parameters were detected at concentrations less than the reporting limit; however, reporting limits were greater than TRGs for select SVOCs.

5.6 Groundwater

5.6.1 Semiannual Monitoring for Volatile Organic Compounds

Concentrations of VOCs were detected at concentrations above TRGs in Wells MW-8, MW-17, and MW-19. Concentrations of benzene, chlorobenzene, carbon tetrachloride, and chloroform were detected in Well MW-17 at concentrations above applicable TRGs. VOCs results for MW-8 and MW-19 were discussed previously in Sections 5.3.1 and 5.4.1, respectively.

No VOCs were detected above reporting limits in Wells MW-7, MW-9, MW-15, or MW-16. Chlorobenzene was detected at a concentration less than the TRG in MW-18, as discussed previously in Section 5.4.1.

5.6.2 Supplemental Sampling

Wells MW-8, MW-17, and MW-19 were selected for supplemental analysis of full Appendix IX constituents. In addition to the VOCs detections in Well MW-17 discussed above, alpha-BHC and arsenic were detected in MW-17 at concentrations above the TRG. Additionally, concentrations of SVOCs, total tetrachlorodibenzofurans, barium, cobalt, and sulfide were detected at concentrations below TRGs. Results for MW-8 and MW-19 were previously discussed in Sections 5.3.2 and 5.4.2, respectively.

6. Recommendations

As of this reporting period, COC concentrations have not changed at the Site to warrant implementation of the contingency measures. The next semiannual sampling event will be conducted in November 2011 in accordance with the 2011 monitoring program summary presented in Table 1. Due to the proximity of Well MW-19 to Providence Street and additional investigation that is proposed in this area as part of the response to the USEPA's May 9, 2011, Resource Conservation and Recovery Act 3013(a) Administrative Order (Administrative Order), Hercules proposes to coordinate future routine RUAO sampling events with the implementation of the proposed activities. Coordination will result in optimization of sampling activities, facilitating data comparability, and conservation of the Delnav laboratory standards. During the November 2011 event, samples collected from Wells MW-2 through MW-24 will be

analyzed for Appendix IX VOCs. Additionally, coordination will be conducted with MDEQ regarding the collection of Delnav samples from Wells MW-4, MW-8, MW-13, MW-14, MW-15, MW-16, and MW-17.

A detailed evaluation of the complete Appendix IX data will be included in responses to the Administrative Order.



Table 1. 2011 Groundwater and Surface Water Monitoring Program, 2011 First Semiannual Groundwater Monitoring Report, Hercules Incorporated, Hattiesburg, Mississippi.

Monitoring Location	Sample Classification	2011 1st Semiannual Event		2011 2nd Semiannual Event	
		MDEQ Required Sampling	Supplemental Sampling	MDEQ Required Sampling	
Sludge Pits Groundwater					
MW-2	Upgradient	VOCs*	Appendix IX	VOCs	--
MW-3	Upgradient	VOCs	--	VOCs	--
MW-4	Downgradient	VOCs*	Appendix IX	VOCs	--
MW-10	Downgradient	VOCs	--	VOCs	Delnav
MW-11	Downgradient	VOCs	--	VOCs	--
Landfill Groundwater					
MW-5	Downgradient	VOCs	--	VOCs	--
MW-6	Downgradient	VOCs	--	VOCs	--
MW-12	Downgradient	VOCs*	Appendix IX	VOCs	--
MW-13	Upgradient	VOCs*	Appendix IX	VOCs	Delnav
MW-14	Downgradient	VOCs	--	VOCs	Delnav
Groundwater					
MW-7	Upgradient	VOCs	--	VOCs	--
MW-8	Downgradient	VOCs*	Appendix IX	VOCs	Delnav
MW-9	Upgradient	VOCs	--	VOCs	--
MW-15	Downgradient	VOCs	--	VOCs	Delnav
MW-16	Downgradient	VOCs	--	VOCs	Delnav
MW-17		VOCs*	Appendix IX	VOCs	Delnav
MW-18	Point of Compliance	VOCs	--	VOCs	Delnav
MW-19	Point of Compliance	VOCs*	Appendix IX	VOCs	--
IB Basin Groundwater					
MW-20	Upgradient	VOCs	--	VOCs	--
MW-21	Lateral	VOCs	--	VOCs	--
MW-22	Lateral	VOCs	--	VOCs	--
MW-23	Downgradient	VOCs*	Appendix IX	VOCs	--
MW-24	Downgradient	VOCs	--	VOCs	--
Greens Creek Surface Water					
CM-00	Upgradient SW	VOCs	--	VOCs	--
CM-01	Upgradient SW	VOCs	--	VOCs	--
CM-02	Upgradient SW	VOCs	--	VOCs	--
CM-03	Downgradient SW	VOCs	--	VOCs	--
CM-04	Downgradient SW	VOCs	--	VOCs	--
CM-05	Downgradient SW	VOCs	--	VOCs	--

Wells shown in bold font are documented as contingency/"trigger" wells in the 2005 Corrective Action Plan.

VOCs - Volatile Organic Compounds per 40 CFR 264 Appendix IX via method SW846-8260.

Appendix IX - Complete Appendix IX constituent list (VOCs, SVOCs, Pesticides/PCBs, Herbicides, Dioxans/Furans, Metals, Cyanide, and Sulfide) per 40 CFR 264 via SW-846 approved methods.

* - VOCs will be an included subset of the Appendix IX "Additional Sampling".

Delnav - Dioxathion (cis- and trans-) and Dioxenethion via method SW846-3510/8321, HPLC.

Table 2. Groundwater Elevation Data, July 25, 2001, 2011 First Semiannual Groundwater Monitoring Report, Hercules Incorporated, Hattiesburg, Mississippi.

Well No.	TOC Elevation (ft.) ¹	Water Depth (ft.) ²	Groundwater Elevation (ft.) ¹
Permanent Monitoring Wells			
MW-1	NA ³	NA ³	NA ³
MW-2	160.07	6.09	153.98
MW-3	160.03	7.61	152.42
MW-4	159.75	11.36	148.39
MW-5	160.99	8.55	152.44
MW-6	174.05	9.19	164.86
MW-7	183.96	15.12	168.84
MW-8	179.99	15.60	164.39
MW-9	181.97	13.09	168.88
MW-10	159.88	11.39	148.49
MW-11	157.18	8.59	148.59
MW-12	162.17	8.95	153.22
MW-13	175.23	9.84	165.39
MW-14	169.23	15.05	154.18
MW-15	172.21	20.05	152.16
MW-16	175.62	17.63	157.99
MW-17	186.13	18.80	167.33
MW-18	165.31	6.03	159.28
MW-19	172.25	11.59	160.66
MW-20	168.62	6.57	162.05
MW-21	163.66	2.93	160.73
MW-22	167.62	6.71	160.91
MW-23	162.38	3.80	158.58
MW-24	164.98	8.36	156.62
Piezometers			
TP-1	Destroyed	NA ³	NA ³
TP-2	171.72	11.99	159.73
TP-3	169.74	10.21	159.53
TP-4	163.64	9.92	153.72
TP-5	160.54	Location not accessible	Location not accessible
TP-6	158.63	7.79	150.84
TP-7	167.17	8.87	158.30
TP-8	183.79	15.21	168.58
TP-9	Destroyed	NA ³	NA ³
TP-10	179.69	15.33	164.36
TP-11	162.26	10.68	151.58
TP-12	159.95	11.50	148.45
TP-13	156.99	8.35	148.64
TP-14	162.59	5.51	157.08
TP-16	179.72	13.84	165.88
TP-17	182.71	17.56	165.15
Greens Creek Staff Gauges			
SG-1	Destroyed	NA ³	NA ³
SG-2	Destroyed	NA ³	NA ³
SG-3	Destroyed	NA ³	NA ³
SG-4	Destroyed	NA ³	NA ³

NOTES:

1- Elevations are in feet relative to mean sea level.

2 - Depth to water is in feet below top of casing.

3 - Data not available.

Table 3. Summary of VOC Analytical Results, 2002 through 2011, 2011 First Semiannual G

Location	Date	Concentrations in $\mu\text{g/L}$															
		Acetone	Benzene	Bromodichloromethane	Bromoform	Bromoethane	Carbon Tetrachloride	Chlorobenzene	1,4-Dichlorobenzene	Naphthalene	1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2,5-Trimethylbenzene	p-Sopropyltoluene	Dibromoethane	Tetrapropylbenzene
MDEQ GW	6.08E+02	5.00E+00	1.68E-01	8.48E+00	8.52E+00	5.00E+00	1.00E+00	5.00E+01	6.20E+00	--	7.00E+00	1.23E+01	1.23E+01	--	1.26E-01	6.78E+02	
MDEQ GW	608	5	0.168	8.48	8.52	5	100	75	6.2	--	7	12.3	12.3	--	0.13	679	
CM-00	Sep-03	NA	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	.84	< 5.0	< 5.0	< 5.0	< 1.0	1.04	< 1.0	< 1.0	< 1.0
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-07	42	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
CM-01	Feb-03	NA	2.82	< 10.0	< 10.0	3.03	< 10.0	0.0	10.0	0.0	25.7	32.2	3.36	< 10.0	< 10.0	< 10.0	< 10.0
	Sep-03	NA	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	6.68	.35	14.7	6.64	1.8	1.3	1.57	< 1.0	< 1.0	< 1.0
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-06	62	8.40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	24	JA	NA	NA	NA	NA	NA	NA	NA
	Feb-07	49	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
CM-02	Feb-03	NA	1.17	< 10.0	< 10.0	< 10.0	1.48	< 10.0	0.0	20.3	24.8	2.37	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-07	92	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
CM-03	Feb-03	NA	3.66	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	1.0	20.1	23	2.13	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
	Aug-05	< 25	1.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-05	< 25	1.40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06	< 25	1.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06	< 25	1.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-07	63	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-07	< 25	4.80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-08	< 25	1.90	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA

Table 3 Summary of VOC Analytical Results, 2002 through 2011, 2011 First Semianual C



Table 3. Summary of VOC Analytical Results, 2002 through 2011, 2011 First Semiannual

Table 3 Summary of VOC Analytical Results, 2002 through 2011, 2011 First Semiannual C

Location	Date	Concentrations in $\mu\text{g/L}$																	
		Acetone	Benzene	Bromoacetone	Bromobutane	Bromobutene	Bromoethane	Carbon Tetrachloride	Chlorobenzene	1,4-Dichlorobenzene	Naphthalene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4-Triethylbenzene	p,p,p-Tributylbenzene	Dibromoethane	Dibromochloromethane	Isopropylbenzene	
MDEQ GW	6 08E+02	5.00E+00	1.68E-01	8.48E+00	8.52E+00	5.00E+00	1.00E-01	5.00E+01	6.20E+00	-	7.00E+00	1.23E+01	1.23E+01	--	1.26E-01	6.79E+02			
MDEQ GW	608	5	0.168	8.48	8.52	5	10 ⁻¹	75	6.2	-	7	12.3	12.3	-	0.13	679			
MW-08	Dec-02	ND	6.80	6.84	ND	4.07	16.00	290	3.80	9.14	ND	ND	ND	ND	23.9	4.46	4.60		
	Feb-03	NA	< 500	4.72	< 10.0	< 10.0	12,000	230	3.14	E 26	B 25.3	B 5.73	1.92	1.80	23.8	< 10.0	4.35		
	Aug-05	< 6,300	18,000	< 1.0	< 250	< 250	3,800	< 250	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-05	< 2,500	17,000	< 1.0	< 100	< 100	1,000	160	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-06	< 2,500	11,000	< 1.0	< 100	< 100	480	160	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-06	< 630	11,000	< 25	< 25	< 25	2,200	170	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Aug-06	760	15,000	< 1.0	< 1.0	< 1.0	840	220	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-06	< 2,500	13,000	< 1.0	< 100	< 100	330	< 100	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-07	< 250	990	< 1.0	< 10.0	< 10.0	840	24	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-07	< 2,500	9,600	< 1.0	< 50	< 50	6,100	220	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-07	< 2,500	14,000	< 1.0	< 100	< 100	370	< 100	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-08	< 2,500	3,200	< 1.0	< 100	< 100	16,000	350	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-08	< 2,500	3,400	< 1.0	< 100	< 100	1,800	150	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-09	< 620	540	< 25	< 25	< 25	2,300	110	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Dec-09	< 620	< 1,000	< 25	< 25	< 25	2,700	180	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-10	< 250	2,900	< 10.0	< 10.0	< 10.0	8,000	180	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Dec-10	< 1,200	6,000	< 50	< 50	< 50	1,000	150	NA	NA	NA	NA	NA	NA	NA	NA	NA		
	Jul-11	< 1,300	4,600	< 50	< 50	< 50	2,600	220	NA	NA	NA	NA	NA	NA	NA	NA	NA		
MW-08	Dec-02	ND	9.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Feb-03	NA	64	< 10.0	< 10.0	< 10.0	20.7	J 5.85	J 0.0	B 31.7	B 36.8	B 4.98	< 10.0	J 1.80	< 10.0	J 1.92			
	Aug-05	< 25	12	< 1.0	< 1.0	< 1.0	< 1.0	1.00	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-05	< 25	16	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-06	< 25	18	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-06	< 25	8.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Aug-06	< 25	10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-06	34	18	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-07	< 25	7.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-07	< 25	8.40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-07	< 25	9.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-08	< 25	3.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-08	46	1.90	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-09	< 25	1.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Dec-09	210	1.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Dec-10	< 25	3.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
MW-10	Aug-03	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
MW-11	Dec-02	ND	114	ND	ND	ND	ND	ND	ID	ND	ND	ND	ND	ND	ND	ND	ND		
	Feb-03	NA	J 6.39	< 10.0	< 10.0	< 10.0	< 10.0	0	0	B 42.6	B 53.40	B 13.86	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0		
	Aug-03	NA	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA		
	May-08	< 25	< 1																

Table 3. Summary of VOC Analytical Results 2002 through 2011, 2011 First Semiannual G

Location	Date	Concentrations in $\mu\text{g/L}$																	
		Acetone	Benzene	Brachloroethane	Brachloroform	Brachloromethane	Carbon Tetrachloride	Chlorobenzene	1,4-Dichlorobenzene	Diphenylbenzene	1,2,4-Trichlorobenzene	1,2,4,4-Trichlorobenzene	1,2,4-Trichlorobutane	1,2,5-Trichlorobutene	p-Diisopropylbenzene	Dibromoformaldehyde	Isopropylbenzene		
MDEQ GW	6.09E+02	5.00E+00	1.68E-01	8.48E+00	6.52E+00	5.00E+00	1.00E+00	5.00E+01	6.20E+00	--	7.00E+00	1.23E+01	1.23E+01	--	1.26E-01	6.79E+02			
MDEQ GW	608	5	0.186	8.48	8.52	5	100	75	6.2	--	7	12.3	12.3	--	0.13	679			
MW-12	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-06	91	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-08	32	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-09	28	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-13	Aug-05	< 25	120	< 1.0	< 1.0	260	10	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-05	29	76	< 1.0	< 1.0	< 1.0	53	9	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-06	< 25	110	< 1.0	< 1.0	1.5	77	22	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-06	< 25	48	< 1.0	< 1.0	< 1.0	110	5	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aug-06	< 25	72	< 1.0	< 1.0	< 1.0	45	17	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-06	< 25	94	< 1.0	< 1.0	< 1.0	27	19	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-07	< 25	160	< 1.0	< 1.0	< 1.0	880	14	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-07	< 25	320	< 1.0	< 1.0	< 1.0	1,400	13	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-07	< 25	180	< 1.0	< 1.0	< 1.0	560	8	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-08	< 250	780	< 1.0	< 20	< 20	3,200	23	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-08	< 250	260	6,60	< 20	< 20	880	14	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-09	< 620	1,200	< 25	< 25	< 25	3,500	< 25	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-09	< 620	790	< 25	< 25	< 25	2,000	29	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 500	2,600	< 20	< 20	< 20	4,000	110	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 250	630	< 10.0	< 10.0	< 10.0	970	25	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 250	390	< 10.0	< 10.0	< 10.0	620	24	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-14	Aug-05	34	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-05	35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-06	180	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-06	440	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-07	72	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-08	650	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-08	580	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-09	260	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-15	Aug-05	84	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-06	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-06	1,500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Feb-07	350	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-07	62	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Nov-08	2,300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-09	1,300	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 3 Summary of VOC Analytical Results, 2002 through 2011, 2011 First Semiannual C

Location	Date	Concentrations in $\mu\text{g/L}$																
		Acetone	Benzene	Dimethylbenzene	Groundform	Hexane	Carbon Tetrachloride	Chlorobenzene	1,4-Dichlorobenzene	Naphthalene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4,Trichlorobenzene	1,3,5-Trichlorobenzene	p,p'-Diphenylbenzene	Dibromoethane	Isopropylbenzene	
MDEQ GW	6.08E+02	5.00E+00	1.68E-01	8.48E+00	8.52E+00	5.00E+00	1.00E+01	5.00E+01	8.20E+00	-	7.00E+00	1.23E+01	1.23E+01	--	1.26E-01	6.79E+02		
MDEQ GW	608	5	0.168	8.48	8.52	5	100	75	6.2	-	7	12.3	12.3	--	0.13	679		
MW-16																		
Aug-05	< 25	2.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-05	< 25	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-10	< 25	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
May-10	< 25	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	VA	NA	NA	NA	NA	NA	NA	NA	NA
MW-17																		
Aug-05	< 25	6,200	< 1.0	< 250	< 250	1,500	340	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-05	< 13,000	1,500	< 1.0	< 500	< 500	17,000	< 500	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-06	< 13,000	1,300	< 1.0	< 500	< 500	37,000	600	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-06	< 6,300	4,200	< 250	< 250	< 250	30,000	630	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aug-06	570	1,000	< 1.0	< 1.0	< 1.0	33,000	610	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-06	< 5,000	2,100	< 1.0	< 200	< 200	26,000	770	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-07	< 5,000	3,300	< 1.0	< 200	< 200	48,000	810	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-07	740	5,300	< 1.0	< 20	< 20	32,000	770	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-07	< 5,000	3,000	< 1.0	< 200	< 200	45,000	890	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-08	< 5,000	4,800	< 1.0	< 200	< 200	47,000	930	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-08	< 5,000	1,800	< 1.0	< 200	< 200	34,000	720	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-09	< 5,000	8,100	< 1.0	< 200	< 200	39,000	640	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-09	< 12,000	4,600	< 500	< 500	< 500	54,000	1,200	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-10	< 2,500	7,500	< 100	< 100	< 100	40,000	740	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-10	< 12,000	< 500	< 500	< 500	< 500	32,000	760	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-11	< 25	3,600	< 200	< 200	< 200	26,000	770	VA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-18																		
Aug-05	< 25	10.00	< 1.0	< 1.0	< 1.0	< 1.0	45	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-05	< 25	3.90	< 1.0	< 1.0	< 1.0	< 1.0	26	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-06	< 25	4.20	< 1.0	< 1.0	< 1.0	< 1.0	31	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-06	< 25	6.50	< 1.0	< 1.0	< 1.0	< 1.0	35	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aug-06	< 25	4.80	< 1.0	< 1.0	< 1.0	< 1.0	34	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-06	61	2.90	< 1.0	< 1.0	< 1.0	< 1.0	23	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-07	< 25	4.10	< 1.0	< 1.0	< 1.0	< 1.0	28	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-07	< 25	4.00	< 1.0	< 1.0	< 1.0	< 1.0	33	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-07	< 25	1.20	< 1.0	< 1.0	< 1.0	< 1.0	26	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-08	< 25	1.70	< 1.0	< 1.0	< 1.0	< 1.0	31	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	23	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	24	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	21	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-10	< 25	1.1	< 1.0	< 1.0	< 1.0	< 1.0	20	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	18	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	21	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-19																		
Aug-05	< 25	20	< 1.0	< 1.0	< 1.0	< 1.0	7,60	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-05	< 25	19	< 1.0	< 1.0	< 1.0	< 1.0	6,40	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-06	< 25	22	< 1.0	< 1.0	< 1.0	< 1.0	5,80	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-06	28	21	< 1.0	< 1.0	< 1.0	< 1.0	7,20	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aug-06	< 25	18	< 1.0	< 1.0	< 1.0	< 1.0	6,30	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-06	< 25	20	< 1.0	< 1.0	< 1.0	< 1.0	6,20	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Feb-07	< 25	32	< 1.0	< 1.0	< 1.0	< 1.0	8,60	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
May-07	< 25	36	< 1.0	< 1.0	< 1.0	< 1.0	8,50	JA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nov-07	< 25	44	< 1.0	< 1.0	< 1.0	< 1.0												

Table 3. Summary of VOC Analytical Results, 2002 through 2011, 2011 First Semiannual C

Location	Date	Concentrations in $\mu\text{g/L}$															
		Acetone	Benzene	Bromoform	Bromodichloromethane	Bromoform	Bromoform	Carbon Tetrachloride	Chlorobenzene	1,4-Dichlorobenzene	Diphenylbenzene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2,4-Triethylbenzene	1,2,4-Triisopropylbenzene	p-Diisopropylbenzene	Dimethylbenzene
MDEQ_GW	6 08E+02	5.00E+00	1.68E-01	8.48E+00	8.52E+00	5.00E+00	1.00E+00	5.0E+01	6.20E+00	--	7.00E+00	1.23E+01	1.23E+01	--	1.26E-01	6.78E+02	
MDEQ_GW	608	5	0.168	8.48	8.52	5	10	75	6.2	--	7	12.3	12.3	--	0.13	679	
MW-20	Sep-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	
MW-21	Sep-09	< 1,200	4,400	< 50	< 50	< 50	< 50	< 50	170	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 1,200	3,600	< 50	< 50	< 50	280	150	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 1,200	4,400	< 50	< 50	< 50	< 50	180	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 1,300	3,200	< 50	< 50	< 50	< 50	180	NA	NA	NA	NA	NA	NA	NA	NA	
MW-22	Sep-09	85	9.80	< 1.0	< 1.0	< 1.0	< 1.0	7.70	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	6.60	< 1.0	< 1.0	< 1.0	< 1.0	4.80	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 25	6.30	< 1.0	< 1.0	< 1.0	< 1.0	2.30	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 25	10.0	< 1.0	< 1.0	< 1.0	< 1.0	8.70	NA	NA	NA	NA	NA	NA	NA	NA	
MW-23	Sep-09	1,600	9,200	< 100	< 50	< 100	< 50	190	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 2,500	10,000	< 100	< 50	< 100	< 100	180	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 2,500	7,600	< 100	< 50	< 100	< 100	< 100	100	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 2,500	8,800	< 100	< 100	< 100	< 100	140	NA	NA	NA	NA	NA	NA	NA	NA	
MW-24	Sep-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	NA	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	NA	
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	NA	
	Jul-11	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	NA	NA	NA	

Notes:

$\mu\text{g/L}$ Micrograms per liter

MDEQ Mississippi Department of Environment Quality

MDEQ_GW MDEQ Tier 1 Target Remediation Goal

-- Standard not promulgated

< Less than

Boldface type Compound detected.

Shaded cells indicate that the reported result exceeds the EPA RSL or MDEQ_GW

NA Not analyzed

B Compound detected in the associated method blank

J Estimated value

Some Appendix IX parameters not shown due to no detections for that parameter

Table 4. QA/QC Sample Analytical Results, 2011 First Semiannual Groundwater Monitoring Report, Hercules Incorporated, Hattiesburg, Mississippi.

Location/ Sample ID	Sample Date	Benzene	Carbon Tetrachloride	Chlorobenzene	Chloroform	Ethylbenzene	Methylene Chloride	1,4- Dioxane	0,0,0- Triethylphos- phonothioate	Alpha- BHC	Gamma- BHC	Total TCDF	Arsenic	Barium	Sulfide
MW-8	7/26/2011	4,600	2,600	220	640	55	340	13000	3400	0.3	60	42	260	5	
DUP-072611	7/26/2011	5,100	2,700	240	640	61	350	9400	3300	0.75	66	44	260	17	
Relative % Difference	-	10%	4%	9%	0%	10%	3%	32%	3%	21%	40%	10%	5%	0%	109%
MW-9	7/28/2011	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	
DUP-072811	7/28/2011	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	
Relative % Difference	-	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-	-
MW-11	7/27/2011	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	
DUP-072711	7/27/2011	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	
Relative % Difference	-	0%	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-	-
RS1-072611	7/26/2011	< 1.0	v	1.0	v	1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	NA	NA	
RS2-072811	7/28/2011	v	1.0	v	1.0	v	1.0	1.6	v	1.0	< 5.0	NA	NA	NA	
Rinsate 7.25.11	7/25/2011	< 1.0	v	1.0	v	1.0	< 1.0	< 1.0	v	1.0	< 5.0	NA	NA	NA	
Trip Blank	7/25/2011	< 1.0	v	1.0	v	1.0	< 1.0	< 1.0	v	1.0	< 5.0	NA	NA	NA	
Trip Blank	7/26/2011	< 1.0	v	1.0	v	1.0	< 1.0	< 1.0	v	1.0	< 5.0	NA	NA	NA	
Trip Blank 063011	7/27/2011	< 1.0	v	1.0	v	1.0	< 1.0	< 1.0	v	1.0	< 5.0	NA	NA	NA	
Trip Blank 063011	7/28/2011	< 1.0	v	1.0	v	1.0	< 1.0	< 1.0	v	1.0	< 5.0	NA	NA	NA	

"v" indicates that the concentration of the analyte is less than the concentrations shown

NA - Not analyzed for particular constituent

Table 5. Groundwater Analytical Results - Supplemental Appendix I)

Location ID: Date Collected:	CAS #	EPA RSL TAP WATER	MDEQ GW	UNITS	MW-02 07/27/11	MW-18 07/27/11	MW-19 07/26/11	MW-20 07/27/11	MW-21 07/26/11	MW-22 07/27/11	MW-23 07/26/11	MW-24 07/27/11	
PEST/PCB-EPA 8081A/8082													
4,4'-DDD	72-54-8	2.80E-01	2.79E-01	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
4,4'-DDE	72-55-9	2.00E-01	1.97E-01	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
4,4'-DDT	50-29-3	2.00E-01	1.97E-01	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
4-Chlorobenzilate	510-15-6	8.10E-01	2.48E-01	ug/L	<0.5	NA	<0.49	NA	NA	NA	<0.49	NA	
Aldrin	309-00-2	4.00E-03	3.94E-03	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Alpha-BHC	319-84-8	1.10E-02	1.06E-02	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Acroclor-1016	12674-11-2	9.60E-01	9.57E-01	ug/L	<0.99	NA	<0.99	NA	NA	NA	<0.99	NA	
Acroclor-1221	11104-26-2	6.80E-03	3.35E-02	ug/L	<2	NA	<2	NA	NA	NA	<2	NA	
Acroclor-1232	11141-16-5	6.80E-03	3.35E-02	ug/L	<0.99	NA	<0.99	NA	NA	NA	<0.99	NA	
Acroclor-1242	53469-21-9	3.40E-02	3.35E-02	ug/L	<0.99	NA	<0.99	NA	NA	NA	<0.99	NA	
Acroclor-1248	12672-29-6	3.40E-02	3.35E-02	ug/L	<0.99	NA	<0.99	NA	NA	NA	<0.99	NA	
Acroclor-1254	11097-59-1	3.40E-02	3.35E-02	ug/L	<0.99	NA	<0.99	NA	NA	NA	<0.99	NA	
Acroclor-1260	11098-82-5	3.40E-02	3.35E-02	ug/L	<0.99	NA	<0.99	NA	NA	NA	<0.99	NA	
Beta-BHC	319-85-7	3.70E-02	3.72E-02	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Delta-BHC	319-88-8	--	--	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Dieldrin	60-57-1	4.20E-03	4.19E-03	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Endosulfan I	959-98-8	--	--	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Endosulfan II	33213-65-9	--	--	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Endosulfan Sulfate	1031-07-8	--	--	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Endrin	72-20-8	1.10E+01	2.00E+00	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Endrin Aldehyde	7421-93-4	--	--	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Endrin Ketone	53494-70-5	--	--	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Gamma-BHC (Lindane)	58-89-9	8.10E-02	2.00E-01	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Heptachlor	78-44-8	1.50E-02	4.00E-01	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Heptachlor Epoxide	1024-57-3	7.40E-03	2.00E-01	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Isodrin	465-73-6	--	--	ug/L	<0.05	NA	<0.049	NA	NA	NA	<0.049	NA	
Kepone	143-50-0	6.70E-03	--	ug/L	<0.99 *	NA	<0.99	NA	NA	NA	<0.99	NA	
Methoxychlor	72-43-5	1.80E+02	4.00E+01	ug/L	<0.099	NA	<0.099	NA	NA	NA	<0.099	NA	
Technical Chlordane	57-74-9	--	2.00E+00	ug/L	<0.5	NA	<0.49	NA	NA	NA	<0.49	NA	
Toxaphene	8001-35-2	6.10E-02	3.00E+00	ug/L	<5	NA	<4.9	NA	NA	NA	<4.9	NA	
Herb-EPA 8151A													
2,4,5-T	93-78-5	3.70E+02	3.85E+02	ug/L	<0.51	NA	<0.5	NA	NA	NA	<0.5	NA	
2,4,5-TP	83-72-1	2.80E+02	5.00E+01	ug/L	<0.51	NA	<0.5	NA	NA	NA	<0.5	NA	
2,4-D	94-75-7	3.70E+02	7.00E+01	ug/L	<0.51	NA	<0.5	NA	NA	NA	10 D	NA	
Volatile Organics-EPA 8260B													
1,1,1,2-Tetrachloroethane	630-20-6	5.20E-01	4.06E-01	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	
1,1,1-Trichloroethane	71-55-6	9.10E+03	2.00E+02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,1,2,2-Tetrachloroethane	79-34-5	6.70E-02	5.27E-02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2-Trichloroethane	79-00-5	2.40E-01	5.00E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1-Dichloroethane	75-34-3	2.40E+00	7.98E+02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2-Dichloroethene	75-35-4	3.40E+02	7.00E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2,3-Trichloropropane	96-18-4	7.20E-04	6.23E-03	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2-Dibromo-3-chloropropane	96-12-8	3.20E-04	2.00E-01	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2-Dibromoethane	106-93-4	6.50E-03	5.00E-02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2-Dichloroethane	107-06-2	1.50E-01	5.00E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
1,2-Dichloropropane	78-87-5	3.90E-01	5.00E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
2-Butanone	78-93-3	7.10E+03	1.91E+03	ug/L	<10	<10	<10	<10	<10	<10	<100	<1	
2-Chloro-1,3-butadiene	126-99-8	1.60E-02	1.43E+01	ug/L	<1	<1	<1	<1	<1	<1	<1,000	<10	
2-Hexanone	591-78-6	4.70E+01	1.48E+03	ug/L	<10	<10	<10	<10	<10	<10	<100	<1	
3-Chloropropene	107-05-1	6.50E-01	--	ug/L	<1	<1	<1	<1	<1	<1	<100	<10	
4-Methyl-2-pentanone	108-10-1	2.00E+03	1.39E+02	ug/L	<10	<10	<10	<10	<10	<10	<100	<1	
Acetone	67-64-1	2.20E+04	6.08E+02	ug/L	<25	<25	<25	<25	<25	<25	<2,500	<25	
Acetonitrile	75-05-8	1.30E+02	1.25E+02	ug/L	<40	<40	<40	<40	<40	<40	<4,000	<40	
Acrolein	107-02-8	4.20E-02	4.18E-02	ug/L	<20	<20	<20	<20	<20	<20	<2,000	<20	
Acrylonitrile	107-13-1	4.50E-02	3.67E-02	ug/L	<20	<20	<20	<20	<20	<20	<2,000	<20	
Benzene	71-43-2	4.10E-01	5.00E+00	ug/L	<1	<1	54	<1	3,200	10	8,800	<1	
Bromodichloromethane	75-27-4	1.20E-01	1.68E-01	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Bromofom	75-25-2	8.50E+00	8.48E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Bromomethane	74-83-9	8.70E+00	8.52E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Carbon Disulfide	75-15-0	1.00E+00	1.04E+03	ug/L	<2	<2	<2	<2	<2	<2	<100	<1	
Carbon Tetrachloride	56-23-5	4.40E-01	5.00E+00	ug/L	<1	<1	3.5	<1	<1	<1	<100	<2	
Chlorobenzene	108-80-7	9.10E+01	1.00E+02	ug/L	<1	21	9.9	<1	160	8.7	140	<1	
Chloroethane	75-00-3	2.10E+04	3.84E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Chloroform	67-86-3	1.90E-01	1.55E+01	ug/L	<1	<1	3.3	<1	4,300	<1	3,200	<1	
Chloromethane	74-87-3	1.90E+02	1.43E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
cis-1,2-Dichloroethene	156-59-2	7.30E+01	7.00E+01	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
cis-1,3-Dichloropropene	10061-01-5	--	--	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Dibromochloromethane	124-48-1	1.50E-01	1.28E-01	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Dibromomethane	74-85-3	8.20E+00	6.08E+01	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Dichlorodifluoromethane	75-71-8	2.00E+02	3.48E+02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Ethy Methacrylate	97-63-2	5.30E+02	5.48E+02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Ethybenzene	100-41-4	1.50E+00	7.00E+02	ug/L	<1	<1	1.3	<1	<1	<1	<100	<1	
Iodomethane	74-88-4	--	--	ug/L	<5	<5	<5	<5	<5	<5	<100	<1	
Isobutanol	78-83-1	1.10E+04	1.83E+03	ug/L	<40	<40	<40	<40	<40	<40	<500	<5	
Methacrylonitrile	126-98-7	1.00E+00	1.04E+00	ug/L	<20	<20	<20	<20	<20	<20	<4,000	<40	
Methyl Methacrylate	80-62-6	1.40E+03	1.42E+03	ug/L	<1	<1	<1	<1	<1	<1	<2,000	<20	
Methylene Chloride	75-09-2	4.80E+00	5.00E+00	ug/L	<5	<5	<5	<5	<5	<5	<100	<1	
Pentachloroethane	76-01-7	7.50E-01	--	ug/L	<5	<5	<5	<5	<5	<5	<500	<5	
Propionitrile	107-12-0	--	--	ug/L	<20	<20	<20	<20	<20	<20	<200	<20	
Styrene	100-42-5	1.60E+03	1.00E+02	ug/L	<1	<1	<1	<1	<1	<1	<2,000	<20	
Tetrachloroethene	127-18-4	1.10E-01	5.00E+00	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
Toluene	108-88-3	2.30E+03	1.00E+03	ug/L	<1	<1	<1	2.4	<1	2,600	1.1	1,300	<1
trans-1,2-Dichloroethene	156-60-5	1.10E+02	1.00E+02	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
trans-1,3-Dichloropropene	10061-02-6	--	--	ug/L	<1	<1	<1	<1	<1	<1	<100	<1	
trans-1,4-Dichloro-2-butene	110-57-6	1.20E-03	--	ug/L	<2								

Table 5. Groundwater Analytical Results - Supplemental Appendix IX

Location ID: Date Collected:	CAS #	EPA RSL TAP WATER	MDEQ GW	UNITS	MW-02 07/27/11	MW-18 07/27/11	MW-19 07/26/11	MW-20 07/27/11	MW-21 07/26/11	MW-22 07/27/11	MW-23 07/27/11	MW-24 07/27/11
Xylenes (total)	1330-20-7	2.00E+02	1.00E+04	ug/L	<2	<2	<2	<2	<100	<2	<200	<2
Semivolatile Organics-EPA 8270C												
1,1-Biphenyl	92-52-4	8.30E-01	3.04E+02	ug/L	<9.9	NA	770	NA	NA	NA	<97	NA
1,2,4,5-Tetrachlorobenzene	95-84-3	1.10E+01	1.10E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,2,4-Trichlorobenzene	120-82-1	2.30E+00	7.00E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,2-Dichlorobenzene	95-50-1	3.70E+02	6.00E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,3,5-Trinitrobenzene	89-35-4	1.10E+03	1.10E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,3-Dichlorobenzene	541-73-1	--	5.48E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,3-Dinitrobenzene	99-65-0	3.70E+00	3.65E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,4-Dichlorobenzene	106-46-7	4.30E-01	7.50E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1,4-Dioxane	123-91-1	6.70E-01	6.08E+00	ug/L	<9.9	NA	<99	NA	NA	NA	890	NA
1,4-Naphthoquinone	130-15-4	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
1-Naphthylamine	134-32-7	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,2-Oxybis(1-Chloropropane)	108-60-1	3.20E-01	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,3,4,6-Tetrachlorophenol	58-90-2	1.10E+03	1.10E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,4,5-Trichlorophenol	95-95-4	3.70E+03	3.65E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,4,6-Trichlorophenol	88-06-2	6.10E+00	6.08E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,4-Dichloropheno	120-83-2	1.10E+02	1.02E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,4-Dimethylpheno	105-67-9	7.30E+02	7.30E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,4-Dinitrophenol	51-28-5	7.30E+01	7.30E+01	ug/L	<49	NA	<500	NA	NA	NA	<480	NA
2,4-Dinitrotoluene	121-14-2	2.20E-01	7.30E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,6-Dichloropheno	87-85-0	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2,6-Dinitrophenol	808-20-2	3.70E+01	3.65E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Acetylaminofluorene	53-96-3	1.80E-02	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Chloronaphthalene	91-58-7	2.80E+03	4.87E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Chloropheno	95-57-8	1.80E+02	3.04E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Methylnaphthalene	91-57-6	1.50E+02	1.22E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Methylphenol	95-48-7	1.60E+03	1.83E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Naphthylamine	91-59-8	3.70E-02	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Nitroaniline	88-74-4	3.70E+02	4.17E-01	ug/L	<49	NA	<500	NA	NA	NA	<480	NA
2-Nitrophenol	88-75-5	--	4.16E-01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
2-Picoline	109-06-8	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
3 & 4 Methylphenol	15831-10-4	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	660	NA
3,3'-Dichlorobenzidine	91-84-1	1.50E-01	1.49E-01	ug/L	<59	NA	<600	NA	NA	NA	<580	NA
3,3'-Dimethylbenzidine	119-83-7	6.10E-03	7.28E-03	ug/L	<20	NA	<200	NA	NA	NA	<190	NA
3-Methylcholanthrene	56-49-5	9.80E-04	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
3-Nitroaniline	89-09-2	--	--	ug/L	<49	NA	<500	NA	NA	NA	<480	NA
4,6-Dinitro-2-methylphenol	534-52-1	2.80E+00	3.65E+00	ug/L	<49	NA	<500	NA	NA	NA	<480	NA
4-Aminobiphenyl	92-67-1	3.20E-03	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Bromophenyl-phenylether	101-55-3	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Chloro-3-Methylphenol	59-50-7	3.70E+03	7.30E+04	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Chloroaniline	106-47-8	3.40E-01	1.48E-02	--	<20	NA	<200	NA	NA	NA	<190	NA
4-Chlorophenyl-phenylether	7005-72-3	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
4-Nitroaniline	100-01-6	3.40E+00	--	ug/L	<49	NA	<500	NA	NA	NA	<480	NA
4-Nitrophenol	100-02-7	--	2.92E+02	ug/L	<49	NA	<500	NA	NA	NA	<480	NA
4-Nitroquinoline-1-oxide	56-57-5	--	--	ug/L	<20	NA	<200	NA	NA	NA	<190	NA
4-Phenylenediamine	106-50-3	6.80E+03	6.84E+03	ug/L	<2,000	NA	<20,000	NA	NA	NA	<19,000	NA
5-Nitro-o-tolidine	96-55-8	7.50E+00	2.03E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
7,12-Dimethylbenz(a)anthracene	57-97-8	8.60E-05	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
a,a'-Dimethylphenethylamine	122-09-8	--	--	ug/L	<2,000	NA	<20,000	NA	NA	NA	<19,000	NA
Acenaphthene	83-32-9	2.20E+03	3.85E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Acenaphthylene	208-96-8	--	2.19E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Acetophenone	98-86-2	3.70E+03	4.18E-02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Aniline	62-53-3	1.20E+01	1.17E+01	ug/L	<20	NA	<200	NA	NA	NA	<190	NA
Anthracene	120-12-7	1.10E+04	4.34E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Aramite	140-57-8	2.70E+00	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Benz(e)anthracene	56-55-3	2.90E-02	9.17E-02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Benz(a)pyrene	50-32-8	2.90E-03	2.00E-01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Benz(b)fluoranthene	205-99-2	2.90E-02	9.17E-02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Benz(g,h,i)perylene	191-24-2	--	1.10E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Benz(k)fluoranthene	207-08-9	2.90E-01	9.17E-01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Benzyl Alcohol	100-51-6	3.70E+03	1.10E+04	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
bis(2-Chloroethoxy)methane	111-91-1	1.10E+02	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
bis(2-Chloroethyl)ether	111-44-4	1.20E-02	9.20E-03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
bis(2-Ethylhexyl)phthalate	117-81-7	4.80E+00	6.00E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Butylbenzylphthalate	85-88-7	3.50E+01	2.69E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Chrysene	218-01-8	2.90E+00	9.17E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Diallate	2303-16-4	1.10E+00	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Dibenzo(a,h)anthracene	53-70-3	2.90E-03	8.17E-03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Dibenzofuran	132-64-9	3.70E+01	2.43E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Diethylphthalate	84-66-2	2.90E+04	2.92E+04	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Dimethoate	60-51-5	7.30E+00	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Dimethylphthalate	131-11-3	--	3.65E+05	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Di-n-Butylphthalate	84-74-2	3.70E+03	3.65E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Di-n-Octylphthalate	117-84-0	--	2.00E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Dinoseb	88-85-7	3.70E+01	7.00E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Disulfoton	298-04-4	1.50E+00	1.46E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Ethyl Methanesulfonate	62-50-0	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Ethyl Parathion	56-38-2	2.20E+02	2.19E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Famphur	52-85-7	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Fluoranthene	208-44-0	1.50E+03	1.46E+03	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Fluorene	88-73-7	1.50E+03	2.43E+02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Hexachlorobenzene	118-74-1	4.20E-02	1.00E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Hexachlorobutadiene	87-88-3	8.60E-01	8.59E-01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Hexachlorocyclopentadiene	77-47-4	2.20E+02	5.00E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Hexachloroethane	67-72-1	4.80E+00	4.78E+00	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Hexachlorophene	70-30-4	1.10E+01	1.10E+01	ug/L	<4,900	NA	<50,000	NA	NA	NA	<48,000	NA
hexachloropropene	1888-71-7	--	--	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Iodo[1,2,3-cd]pyrene	193-39-5	2.90E-02	9.17E-02	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA
Isophorone	78-59-1	7.10E+01	7.05E+01	ug/L	<9.9	NA	<99	NA	NA	NA	<97	NA

Table 5. Groundwater Analytical Results - Supplemental Appendix I

Location ID: Date Collected:	CAS #	EPA RSL TAP WATER	MDEQ_GW	UNITS	MW-02 07/27/11	MW-18 07/27/11	MW-19 07/26/11	MW-20 07/27/11	MW-21 07/26/11	MW-22 07/27/11	MW-23 07/26/11	MW-24 07/27/11
Iisosafrole	120-58-1	--	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Methaphylrene	91-80-5	--	--	ug/L	<2,000	NA	<20,000	NA	NA	NA	<18,000	NA
Methyl Methanesulfonate	66-27-3	6.80E-01	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Methyl Parathion	298-00-0	9.10E+00	9.13E+00	ug/L	<9 *	NA	<99	NA	NA	NA	<97	NA
Naphthalene	91-20-3	1.40E-01	6.20E+00	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Nitrobenzene	98-95-3	1.20E-01	3.53E+00	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosodiethylamine	55-18-5	1.40E-04	4.48E-04	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosodimethylamine	62-75-9	4.20E-04	1.31E-03	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitroso-di-n-butylamine	924-16-3	2.40E-03	1.89E-03	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitroso-di-n-propylamine	621-64-7	9.80E-03	9.57E-03	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosodiphenylamine	66-30-6	1.40E-01	1.37E+01	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosomethylimidamine	10593-95-8	3.10E-03	3.04E-03	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosomorpholine	59-89-2	1.00E-02	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosopiperidine	100-75-4	7.20E-03	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
N-Nitrosopyrrolidine	930-55-2	3.20E-02	3.19E-02	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
o,o-Triethylphosphorothioate	128-88-1	--	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
c-Toluidine	85-53-4	--	2.79E-01	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
p-Dimethylaminobenzene	60-11-7	1.50E-02	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Pentachlorobenzene	608-93-5	2.80E+01	2.92E+01	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Pentachloronitrobenzene	82-68-8	2.80E-02	2.58E-01	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Pentachlorophenol	87-86-5	1.70E-01	1.00E+00	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Phenacetin	62-44-2	3.10E+01	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Phenanthrene	85-01-8	--	1.10E+03	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Phenol	108-95-2	1.10E+04	2.19E+04	ug/L	<9	NA	<99	NA	NA	NA	140	NA
Phorate	298-02-2	7.30E+00	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Pronamide	23950-58-5	2.70E+03	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Pyrene	129-00-0	1.10E+03	1.83E+02	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Pyridine	110-88-1	3.70E+01	3.65E+01	ug/L	<9	NA	<500	NA	NA	NA	<480	NA
Safrole	94-59-7	9.80E-02	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Sulfotep	3689-24-5	1.80E+01	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Thionezin	287-87-2	--	--	ug/L	<9	NA	<99	NA	NA	NA	<97	NA
Dioxins-EPA 8290												
2,3,7,8-TCDD	1746-01-6	5.20E-01	3.00E+01	pg/L	<10	NA	<10	NA	NA	NA	<10	NA
Total TEQ	--	--	--	pg/L	0.00	NA	0.00	NA	NA	NA	0.00	NA
Inorganics-EPA 6020												
Antimony	7440-36-0	1.50E+01	6.00E+00	ug/L	<5	NA	<5	NA	NA	NA	<5	NA
Arsenic	7440-38-2	4.50E-02	5.00E+01	ug/L	2.9	NA	14	NA	NA	NA	19	NA
Banum	7440-39-3	7.30E+03	2.00E+03	ug/L	78	NA	51	NA	NA	NA	240	NA
Beryllium	7440-41-7	7.30E+01	4.00E+00	ug/L	<0.5	NA	<0.5	NA	NA	NA	3.3	NA
Bismuth	7440-43-9	--	5.00E+00	ug/L	<0.5	NA	<0.5	NA	NA	NA	<0.5	NA
Chromium	7440-47-3	--	--	ug/L	<5	NA	<5	NA	NA	NA	5	NA
Cobalt	7440-48-4	1.10E+01	2.19E+03	ug/L	4.2	NA	<0.5	NA	NA	NA	0.71	NA
Copper	7440-50-8	1.50E+03	1.30E+03	ug/L	<5	NA	<5	NA	NA	NA	<5	NA
Lead	7439-92-1	--	1.50E+01	ug/L	<1.5	NA	<1.5	NA	NA	NA	<1.5	NA
Nickel	7440-02-0	7.30E+02	7.30E+02	ug/L	<5	NA	<5	NA	NA	NA	<5	NA
Selenium	7782-49-2	1.80E+02	5.00E+01	ug/L	<2.5	NA	<2.5	NA	NA	NA	<2.5	NA
Silver	7440-22-4	1.80E+02	1.83E+02	ug/L	<1	NA	<1	NA	NA	NA	<1	NA
Thallium	7440-28-0	3.70E-01	2.00E+00	ug/L	<1	NA	<1	NA	NA	NA	<1	NA
Tin	7440-31-5	2.20E+04	2.18E+04	ug/L	<5	NA	<5	NA	NA	NA	<5	NA
Vanadium	7440-82-2	--	2.56E+02	ug/L	<10	NA	<10	NA	NA	NA	16	NA
Zinc	7440-66-6	1.10E+04	1.10E+04	ug/L	<20	NA	57	NA	NA	NA	<20	NA
Inorganics-EPA 7470A												
Mercury	7439-97-6	6.30E-01	2.00E+00	ug/L	<0.2	NA	<0.2	NA	NA	NA	<0.2	NA
Miscellaneous-9034												
Sulfide	18496-25-8	--	--	mg/L	<1	NA	<1	NA	NA	NA	7.9	NA
Miscellaneous9012A												
Cyanide	57-12-5	7.30E-01	2.00E-01	mg/L	<0.01	NA	<0.01	NA	NA	NA	<0.01	NA

* Laboratory duplicate analysis was outside control limits

< Less than

-- Standard not promulgated

Shaded cells indicate that the reported result exceeds the EPA RSL or MDEQ_GW

Compound detected

U S Environmental Protection Agency

Mississippi Department of Environment Quality

MDEQ Tier 1 Target Remediation Goal

Milligrams per liter

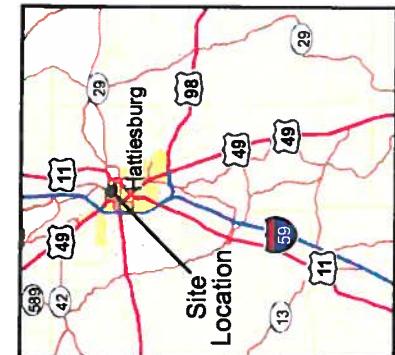
Not analyzed

Regional Screening Level

Toxic equivalent

Micrograms per liter





SITE LOCATION MAP

**2011 FIRST SEMIANNUAL
MONITORING REPORT**

HERCULES INCORPORATED
613 W. 7th Street
Hattiesburg, Mississippi

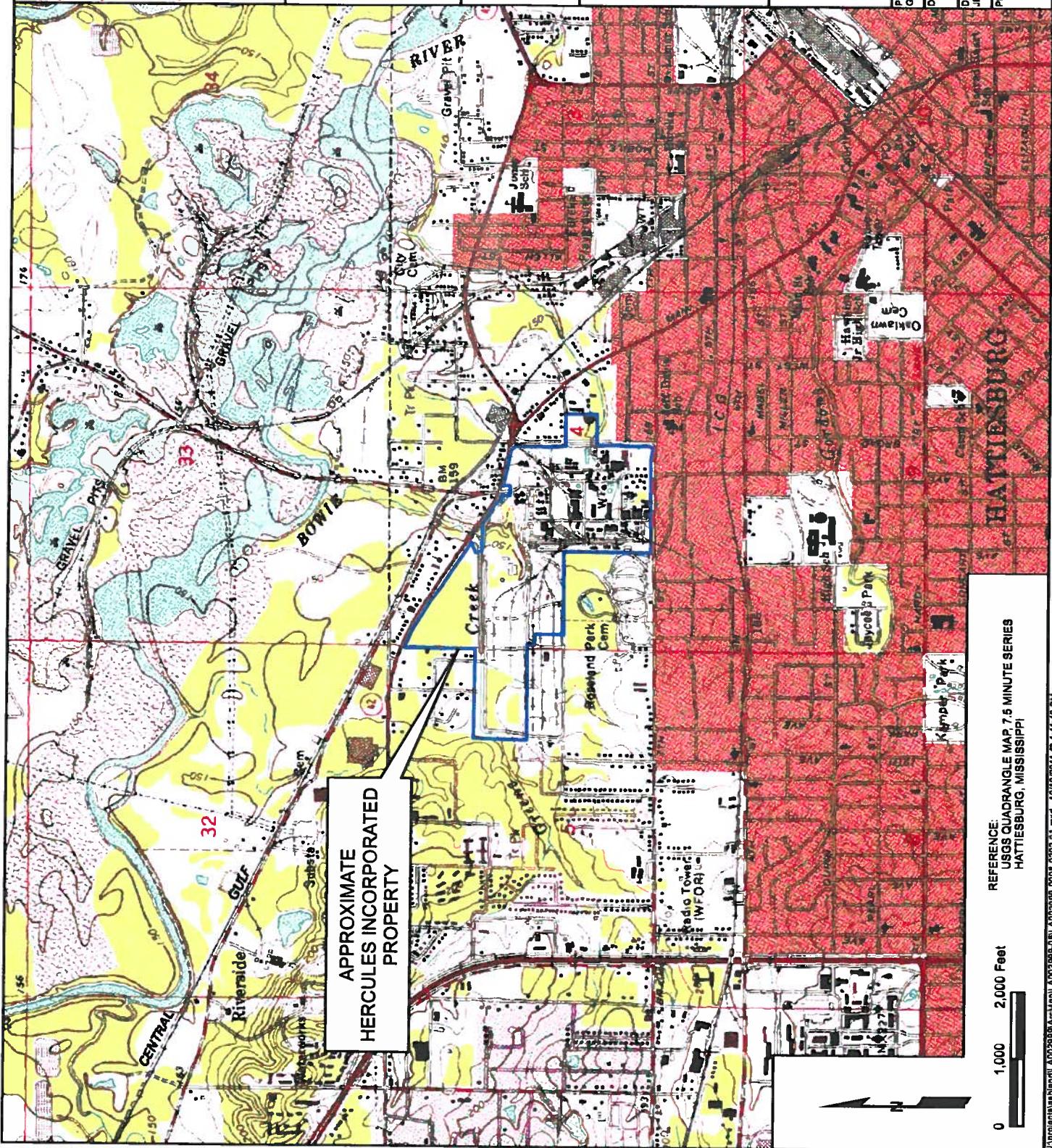


10352 PLAZA AMERICANA
BATON ROUGE, LA 70816
TEL: 225-282-1004
FAX: 225-218-9677
WWW.ARCADIS-US.COM

PROJECT MANAGER: GHC	CHECKED BY: CD	DIS FILE: DRAFTING.DW	DATE:
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PROJECT NUMBER: 1 A0002888 00006

U:\Projects\Babu\Bndl\A002999\plots\001 A002999-001-A002999-001.BEL





QC Association Summary

Client: Ashland Inc.
Project/Site: Hercules Hattiesburg APIX 7/25/11

TestAmerica Job ID: 680-70717-1

GC/MS VOA

Analysis Batch: 210523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-70717-8	Trip Blank	Total/NA	Water	8260B	
680-70717-1	CM-05	Total/NA	Water	8260B	
LCS 680-210523/10	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-210523/11	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-210523/13	Method Blank	Total/NA	Water	8260B	
680-70717-2	CM-04	Total/NA	Water	8260B	
680-70717-3	CM-03	Total/NA	Water	8260B	
680-70717-4	CM-02	Total/NA	Water	8260B	
680-70717-5	CM-01	Total/NA	Water	8260B	
680-70717-6	CM-00	Total/NA	Water	8260B	
680-70717-7	Rinsate 7.25.11	Total/NA	Water	8260B	