

FILE COPY

**2nd Semi-Annual
Monitoring Report 2010**

**Hercules Incorporated
Hattiesburg, Mississippi**

**Prepared for:
Hercules Incorporated**

February 2011





February 25, 2011

Mr. William McKercher
Environmental Engineer
Office of Pollution Control
Mississippi Department of Environmental Quality (MDEQ)
P.O. Box 2261
Jackson, Mississippi 39225

FILE COPY

**RE: 2nd Semi-Annual 2010 Monitoring Report
Hercules Incorporated
Hattiesburg, Mississippi
ESI Project No. HER12029128**

Dear Mr. McKercher:

Eco-Systems, Inc. (Eco-Systems) is pleased to submit the enclosed two copies of the 2nd Semi-Annual 2010 Monitoring Report prepared on behalf of Hercules, Incorporated. The report includes discussion of the November-December 2010 surface water and groundwater monitoring event.

If you have any questions or require additional information, please do not hesitate to call Mr. Timothy Hassett at (302) 995-3456 or Chris Waters (Eco-Systems) at (251) 342-0700.

Sincerely,

A. Chris Waters, RPG
Senior Scientist

cc: Timothy Hassett – Hercules Inc. w/ enclosure

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1.0 INTRODUCTION

Hercules Incorporated (Hercules) commissioned Eco-Systems, Inc. (Eco-Systems) to conduct groundwater and surface water monitoring at the Hattiesburg, Mississippi facility. The site location is shown in **Figure 1**. The work is being conducted in accordance with the Corrective Action Plan Revision 01 (CAP), prepared by Groundwater & Environmental Services, Inc. (GES), dated January 20, 2005, which was approved by the Mississippi Department of Environmental Quality (MDEQ) in a letter dated January 25, 2005 and modified in a letter from MDEQ to Hercules dated August 18, 2006. 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 the MDEQ- approved recommendation of the 2007 Annual Monitoring Report, surface water and groundwater monitoring is being continued on a semi-annual basis.

This report describes sampling activities and analytical results for the 2nd semi-annual monitoring event of 2010. During this event, water levels were measured at 23 monitoring wells and 12 piezometers, surface water samples were collected from six locations in Green's Creek, and groundwater samples were collected from 23 monitoring wells. Initially, groundwater monitoring was conducted on Monitoring Wells MW-2 through MW-19. In September 2009, five additional monitoring wells MW-20 through MW-24 were installed in the vicinity of an impoundment basin (IB Basin) in preparation for closure of the basin. These monitoring wells were added to the routine groundwater monitoring program in 2010.

As required by the CAP, surface water and groundwater samples collected during monitoring events are being analyzed for Appendix IX volatile organic compounds (VOCs). In addition, as required by the MDEQ in the August 18, 2006 letter, samples were collected for dioxathion and dioxenethion compounds. The MDEQ requires dioxathion and dioxenethion sampling specifically for monitoring wells MW-4, MW-8, MW-13, MW-14, MW-15, MW-16, and MW-17. However, in order to update baseline conditions, all monitoring wells and surface water sampling locations included Delnav analysis (dioxathion (cis), dioxathion (trans) and dioxenethion) for this event. The site layout, location of monitoring wells and piezometers, and Green's Creek are illustrated on **Figure 2**.

2.0 FIELD ACTIVITIES

Field activities conducted during this semi-annual sampling event include sample collection from 23 monitoring wells and 6 surface water monitoring locations. Groundwater and surface water samples were analyzed for Appendix IX VOCs, and Delnav (dioxathion (cis), dioxathion (trans) and dioxenethion).

2.1 GROUNDWATER SAMPLE COLLECTION

On November 29, 2010 Eco-Systems personnel collected groundwater levels from 23 monitoring wells and 6 surface water locations at the site. A summary of the water level measurements obtained on November 29, 2010 is included as **Table 1**. A potentiometric surface map has been prepared from the November 29, 2010 groundwater elevations and is included as **Figure 3**.

Groundwater sample collection was conducted November 30 through December 3, 2010. Prior to collecting groundwater samples, each well was purged using *low-flow/low-stress* techniques. Purging began with withdrawal of water at a rate equal to recharge (e.g. stabilized water table), which was monitored using a water-level indicator. Purging was conducted until temperature, pH, specific conductance, and turbidity had stabilized. 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 collected for analysis was sampled by collecting water directly into new sample containers supplied by the analytical laboratory. During the collection of field replicates that were collected for quality assurance and quality control (QA/QC), alternating aliquots were placed in each replicate bottle until each bottle was filled.

In general, the order of sampling was from least impacted to most impacted, based on historical data. Tubing used during purging and sampling was disposed of after use. Subsequent to sampling, sample containers were labeled, placed and sealed on ice and shipped to the designated offsite laboratories for analysis. Chain-of-custody documentation accompanied the sample cooler. Personnel involved in sampling used clean, disposable gloves, which were changed between each sample collection. All non-disposable sampling equipment was decontaminated as outlined in Section 2.4.

During this event, groundwater samples were collected from permanent monitoring wells MW-2 through MW-24. Groundwater samples were collected in new sample containers supplied by the analytical laboratories. Filled sample containers were placed on ice in coolers. Groundwater samples for VOC analysis were shipped via overnight courier to Test America Laboratories in Savannah, Georgia for analysis. Dioxathion analysis was conducted by Bonner Analytical Testing Company in Hattiesburg, Mississippi.

2.2 SURFACE WATER SAMPLE COLLECTION

On November 29, 2010, six surface water samples were collected from the previously established sampling points along Green's 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 collected directly into new sample containers that were supplied by the analytical laboratory. The filled sample containers were labeled, packed and shipped/delivered in the same manner as groundwater samples discussed in Section 2.1.

2.3 QUALITY ASSURANCE/QUALITY CONTROL

For quality assurance/quality control (QA/QC) purposes, three duplicate groundwater samples, four rinsate samples, three trip blank samples, and one matrix spike and matrix spike duplicate (MS/MSD) were collected during field sampling activities. The duplicate groundwater samples were collected in alternating aliquots that were placed in each replicate bottle until each bottle was filled. The rinsate samples were prepared by pouring deionized water over groundwater sampling tubing and collecting the rinsate into new disposable sample containers supplied by the analytical laboratory. QA/QC samples were labeled, stored and shipped in the same manner as groundwater and surface water samples. QA/QC samples were analyzed for the same constituents as groundwater and surface water samples.

2.4 DECONTAMINATION

In general, groundwater sampling equipment that would contact the groundwater sample was single-use, disposable equipment. For any re-usable groundwater sampling equipment decontamination was accomplished by the following procedure:

- 1) Phosphate-free, detergent wash.
- 2) Potable water rinse.
- 3) Deionized water rinse.
- 4) Isopropanol rinse.
- 5) Organic-free water rinse or air dry.

If it was necessary to store or transport decontaminated equipment, the decontaminated equipment was placed in either a new, disposable plastic bag or wrapped in aluminum foil.

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2.5 OTHER PROCEDURES

As approved by the MDEQ, procedures for sample collection, sample containerization and packing, sample shipment, cross-contamination control, drummed material disposal, field documentation, chain-of-custody, data review, and other work items not specifically covered in this document were conducted in accordance with appropriate EPA Region 4, *Field Branches Quality System and Technical Procedures* (EPA Region IV, 2007-2008).

3.0 RESULTS

Groundwater and surface water samples collected from the Hercules site were analyzed for Appendix IX VOCs according to U.S. EPA Method 8260B and dioxathion by Modified SW846. Laboratory analytical reports for the samples collected during this monitoring event are included in **Appendix B** and summarized in **Table 2** and **Table 3**. Concentrations exceeding their respective MDEQ TRGs are shown in **Figure 4**.

3.1 GROUNDWATER ANALYTICAL RESULTS

Discussion presented in this section summarizes the analytical results for groundwater samples collected from monitoring wells MW-2 through MW-24 on November 30th, December 1st, 2nd, and 3rd, 2010.

3.1.1 Volatile Organic Compounds

VOCs were not detected in groundwater samples collected from 13 of the 23 monitoring wells (MW-02, MW-03, MW-04, MW-6, MW-07, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, MW-20, and MW-24). Due to laboratory error, samples collected from Monitoring Wells MW-04, MW-05, MW-06, MW-07, MW-10, MW-11, MW-12, were analyzed beyond the hold time. However, samples historically collected from these wells have been either non-detect, or shown isolated low detections for VOCs.

Analysis of the groundwater sample collected from monitoring well MW-05 detected acetone at a concentration below the TRG.

Analysis of the groundwater sample collected from monitoring well MW-08 detected benzene, chlorobenzene, carbon tetrachloride, chloroform, and methylene chloride at concentrations above their respective TRGs. Ethylbenzene was detected at concentrations below the TRG. The laboratory dilution factor resulted in elevated detection limits which, in some cases, exceeded the compounds' TRG.

Analysis of the groundwater sample collected from monitoring well MW-09 detected benzene and 1,1-dichloroethene at concentrations below their respective TRGs.

Analysis of the groundwater sample collected from monitoring well MW-13 detected benzene, carbon tetrachloride, and chloroform at concentrations above their respective TRGs. Chlorobenzene was detected below the TRG. The laboratory dilution factor resulted in elevated detection limits which, in some cases, exceeded the parameter TRG.

Analysis of the groundwater sample collected from monitoring well MW-17 detected chlorobenzene, carbon tetrachloride, and chloroform at concentrations above their respective TRGs. The laboratory dilution factor resulted in elevated detection limits which, in some cases, exceeded the parameter TRG.

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Analysis of the groundwater sample collected from monitoring well MW-18 detected chlorobenzene at a concentration below the TRG.

Analysis of the groundwater sample collected from monitoring well MW-19 detected benzene and chloroform at concentrations above their respective TRGs. Chlorobenzene, ethylbenzene, and toluene were detected at concentrations below their respective TRGs.

Analysis of the groundwater sample collected from monitoring well MW-21 detected benzene, chlorobenzene, chloroform, 1,2-dichloroethane, toluene, and methyl isobutyl ketone at concentrations above their respective TRGs. The laboratory dilution factor resulted in elevated detection limits which, in some cases, exceeded the parameter TRG.

Analysis of the groundwater sample collected from monitoring well MW-22 detected benzene at a concentration above the TRG. Chlorobenzene was detected at a concentration below the TRG.

Analysis of the groundwater sample collected from monitoring well MW-23 detected benzene, chloroform, and toluene at concentrations above their respective TRGs. The laboratory dilution factor resulted in elevated detection limits which, in some cases, exceeded the parameter TRG.

3.1.2 DELNAV

Dioxathion was not detected in groundwater samples collected from 12 of the 23 monitoring wells (MW-02, MW-03, MW-04, MW-6, MW-07, MW-10, MW-11, MW-12, MW-21, MW-22, MW-23, and MW-24).

Dioxathion was detected below the TRG in groundwater samples collected from 10 of the 23 monitoring wells (MW-05, MW-8, MW-9, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, and MW-20).

Dioxathion was detected above the TRG of 54.8 µg/L in monitoring well MW-8 and MW-17.

Dioxenethion was detected in groundwater samples collected from 11 of the 23 monitoring wells (MW-4, MW-8, MW-11, MW-12, MW-13, MW-16, MW-17, MW-20, MW-21, MW-22, and MW-24). A dioxenethion TRG has not been established.

3.2 SURFACE WATER ANALYTICAL RESULTS

Discussion presented in this section summarizes the analytical results for surface water samples collected from sampling locations CM-00 through CM-05 on November 29, 2010.

3.2.1 Volatile Organic Compounds

Chloroform was detected above the TRG in the sample collected from CM-00. VOCs were not detected in surface water samples collected from locations CM-01, CM-02, CM-03, CM-04, and CM-05. Due to laboratory error, samples collected from CM-00, CM-01, and CM-02 were analyzed beyond the hold time. However, samples historically collected from these locations have been either non-detect, or shown isolated detections for VOCs.

3.2.2 DELNAV

Dioxathion was detected surface water samples collected from 1 of the 6 surface water locations (CM-04). Dioxenethion was detected in surface water samples collected from CM-03, CM-04, and CM-05. However, no surface water target level has been established for dioxathion or dioxenethion.

3.3 QA/QC SAMPLE ANALYTICAL RESULTS

Analytical reports for the QA/QC samples are included in **Appendix B** and summarized in **Table 4**.

Duplicate groundwater samples were collected from MW-04 (labeled FD1-1201210), MW-13 (labeled FD2-12022010), and MW-18 (labeled FD3-12032010). Analysis of the duplicate groundwater sample collected from MW-04 and the original MW-04 indicated all VOC constituents were below the MDL. Analysis of the duplicate sample from MW-04 detected similar concentrations of dioxenethion, dioxathion (cis), and dioxathion (trans). Analysis of the duplicate groundwater samples collected from monitoring wells MW-13 and MW-18 detected the similar concentrations of all VOC parameters. Concentrations of dioxenethion were similar in both the original and duplicate samples collected from MW-13. However, dioxathion (cis) and dioxathion (trans) were detected in the original MW-13 sample but not in the duplicate. Dioxenethion was detected in the duplicate sample from MW-18 but not in the original sample. Also, dioxathion (cis) was detected in the original sample collected from MW-18 but not in the duplicate sample.

Chloroform and toluene were detected in all four rinsate samples RS1-11302010, RS2-12012010, RS3-12022010, RS4-12032010. Dioxenethion was detected in rinsate sample RS1-11302010, RS3-12022010, and RS4-12032010. Dioxathion (trans) was also detected in RS3-12022010. The consistency of chloroform and toluene detections in all rinsate blanks indicates that the reagent water used in blank preparation was possibly contaminated prior to the sampling event rather than during sampling. The dioxathion/dioxenethion rinsate blank detections may be laboratory artifacts. However, Eco-Systems has conducted internal corrective actions in accordance with the Eco-Systems Management Plan. VOCs were not detected in any of the trip blanks.

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Review of the analytical reports for VOCs that were submitted by Test America indicates that spike sample recoveries for the spiked volatile organic constituents in the MS and MSD samples were within the acceptable recovery ranges reported by the laboratory for each of the spiked constituents.

As reported by Test America, all method blanks were non-detect for VOCs. The laboratory QC spike sample recoveries for VOCs detected in site samples were within the limits reported by the laboratory.

The dioxathion/dioxenethion analysis was conducted by Bonner Analytical. This report of analysis was also reviewed for QA/QC issues. All laboratory control sample and matrix spike recoveries were acceptable, and all method blanks were non-detect for the target analytes. As previously stated, the detections of dioxathion and dioxenethion in rinsate blanks may be laboratory artifacts. Furthermore, Eco-Systems has conducted internal corrective actions in accordance with the Eco-Systems Management Plan.

Based on the information received and reviewed, the VOC and dioxathion/dioxenethion analyses were conducted under controlled conditions and the data packages are acceptable for use as reported. However, the following samples were analyzed for VOCs outside the method defined holding time due to laboratory error: FD01, MW-04, MW-05, MW-06, MW-07, MW-10, MW-11, MW-12, RS02, CM-00, CM-01, and CM-02. The resulting analytical data for these samples compared favorably to historical data.

4.0 FINDINGS AND CONCLUSIONS

The findings and conclusions in this section are based on data obtained during the November-December 2010 monitoring event.

4.1 SLUDGE PITS

Groundwater monitoring in the sludge pit area is conducted using five monitoring wells. Monitoring wells MW-2 and MW-3 are located north of the sludge pits in historically up gradient positions. Monitoring wells MW-4, MW-10, and MW-11 are located south of the sludge pits in historically down gradient positions.

VOCs were not detected in samples collected from sludge pit area monitoring wells MW-2, MW-3, MW-4, MW-10, and MW-11. Based on current and historical analytical results, VOCs are not migrating from the sludge pits at concentrations above TRGs.

Dioxenethion was detected in monitoring wells MW-4 and MW-11 and has been historically detected in these wells. However, a TRG for dioxenethion has not been established. Dioxathion was previously detected in MW-4 but was not detected during this event.

4.2 GREEN'S CREEK

Chloroform was detected above the TRG in surface water sample CM-00. VOCs were not detected in samples collected from surface water monitoring locations CM-01, CM-02, CM-03, CM-04, and CM-05 during this monitoring event.

Dioxenethion was detected in surface water samples CM-03, CM-04, and CM-05. Dioxenethion was previously detected in CM-03 (August 2005). Dioxathion (trans) was also detected in surface water sample CM-04. There are no established surface water target levels for dioxathion or dioxenethion.

4.3 FORMER LANDFILL

Groundwater monitoring of the former landfill area is conducted using five monitoring wells. Monitoring wells MW-8 and MW-13 are located south and east of the former landfill in historically up-gradient positions. Monitoring wells MW-5, MW-6, and MW-12 are located north of the former landfill in historically down-gradient positions.

In samples collected from the up-gradient wells MW-8 and MW-13, concentrations of benzene, chlorobenzene, carbon tetrachloride, and chloroform persist at concentrations above TRGs. Methylene chloride has also been persistent in MW-8. Ethylbenzene was detected below the TRG in MW-8. Dioxathion was detected in concentrations below the

TRG in groundwater samples collected from MW-8 and MW-13. Concentration trend graphs for Monitoring Wells MW-8 and MW-13 are provided in **Appendix C**.

Samples collected from down-gradient well MW-5 detected acetone at concentrations well below the TRG and may be a laboratory artifact. No VOCs were detected in the samples collected from MW-6 and MW-12. The lack of VOCs in groundwater samples in down-gradient wells indicates that VOCs are not migrating from the landfill at concentrations above TRGs. Dioxathion was detected below the TRG in MW-5. No dioxathion parameters were detected in the groundwater sample collected from MW-6. Dioxenethion was detected in MW-12; however, a TRG for dioxenethion has not been established.

4.4 GROUNDWATER

Discussion of monitoring wells MW-5, MW-8, and MW-13, which are near the suspected source area, is included in Section 4.3.

VOCs, dioxathion, and dioxenethion concentrations were not detected in groundwater samples collected from monitoring well MW-7.

Concentrations of benzene and 1,1-dichloroethene were detected at concentrations below their respective TRGs in monitoring well MW-9. All other VOC parameter concentrations in monitoring well MW-9 remain non-detect. Dioxathion was detected below the TRG in samples collected from MW-9.

VOCs and dioxenethion were not detected in samples collected from monitoring wells MW-14 and MW-15. Dioxathion concentrations were detected in both wells below the TRG. Dioxathion has been previously detected in MW-14; however, the concentrations have decreased.

VOCs and dioxenethion were not detected in samples collected from monitoring well MW-16. Dioxathion concentrations were detected below the TRG. Dioxathion has been previously detected in MW-16; however, the concentrations have decreased.

Concentrations of chlorobenzene, carbon tetrachloride, and chloroform above the TRG persist in samples collected from monitoring well MW-17, which is located in a suspected source area. Concentrations of these constituents have fluctuated, but remain generally stable. Previously detected compounds including benzene and toluene were reported below an elevated laboratory detection limit. Dioxathion was detected below the TRG in MW-17 and has been detected in prior monitoring events. The current reported concentrations of dioxathion have decreased below the TRG. Dioxenethion was also detected in MW-17; however, no TRG has been established for dioxenethion. Concentration trend graphs for Monitoring Well MW-17 are provided in **Appendix C**.

4.5 EASTERN PLANT AREA

Monitoring wells MW-18 and MW-19, which are located east of plant buildings, were installed as part of the CAP, but potentiometric information has not indicated that these wells are part of the previously defined area of groundwater containing volatile organic constituents. Therefore, monitoring wells MW-18 and MW-19 are discussed separately.

Chlorobenzene was detected at concentrations below the TRG in samples collected from monitoring well MW-18. All remaining VOC parameters were detected below their respective method detection limits. Dioxathion was detected below the TRG in samples collected from MW-18.

Concentrations of benzene and chloroform above the TRG persist in samples collected from monitoring well MW-19. Chlorobenzene, ethylbenzene, and toluene were detected in samples collected from monitoring well MW-19 at concentrations below the TRG during the December 2010 monitoring event. Dioxathion was detected above the TRG in MW-19. Concentration trend graphs for Monitoring Well MW-19 are provided in **Appendix C**.

4.6 IB BASIN

Monitoring wells MW-20, MW-21, MW-22, MW-23, and MW-24, which are located in the vicinity of the IB Basin and were installed in preparation of closure of the IB Basin. Monitoring well MW-20 is located up gradient of the basin. Monitoring wells MW-21, MW-22, MW-23, and MW-24 are located in cross-gradient and down-gradient locations.

No VOCs were detected in groundwater samples collected from MW-20. Dioxathion was detected below the TRG. Dioxathion was not detected during the September 2009 sampling event. Dioxenethion was also detected in MW-20; however, a TRG for dioxenethion has not been established.

Concentrations of benzene, chlorobenzene, chloroform, 1,2-dichloroethane, toluene, and methyl isobutyl ketone above the TRG are present in samples collected from monitoring well MW-21. Dioxenethion was detected in MW-21; however, a TRG for dioxenethion has not been established. Dioxathion was detected in the September 2009 sampling event but was not detected during the November-December 2010 event.

Benzene was detected at concentrations slightly above the TRG in samples collected from monitoring well MW-22. Chlorobenzene was detected below the TRG in MW-22. All remaining VOC parameters were detected below their respective method detection limits. Dioxenethion was detected in MW-22; however, a TRG for dioxenethion has not been established.

Concentrations of benzene, chloroform, and toluene above their respective TRGs are present in samples collected from monitoring well MW-23. Dioxathion was detected

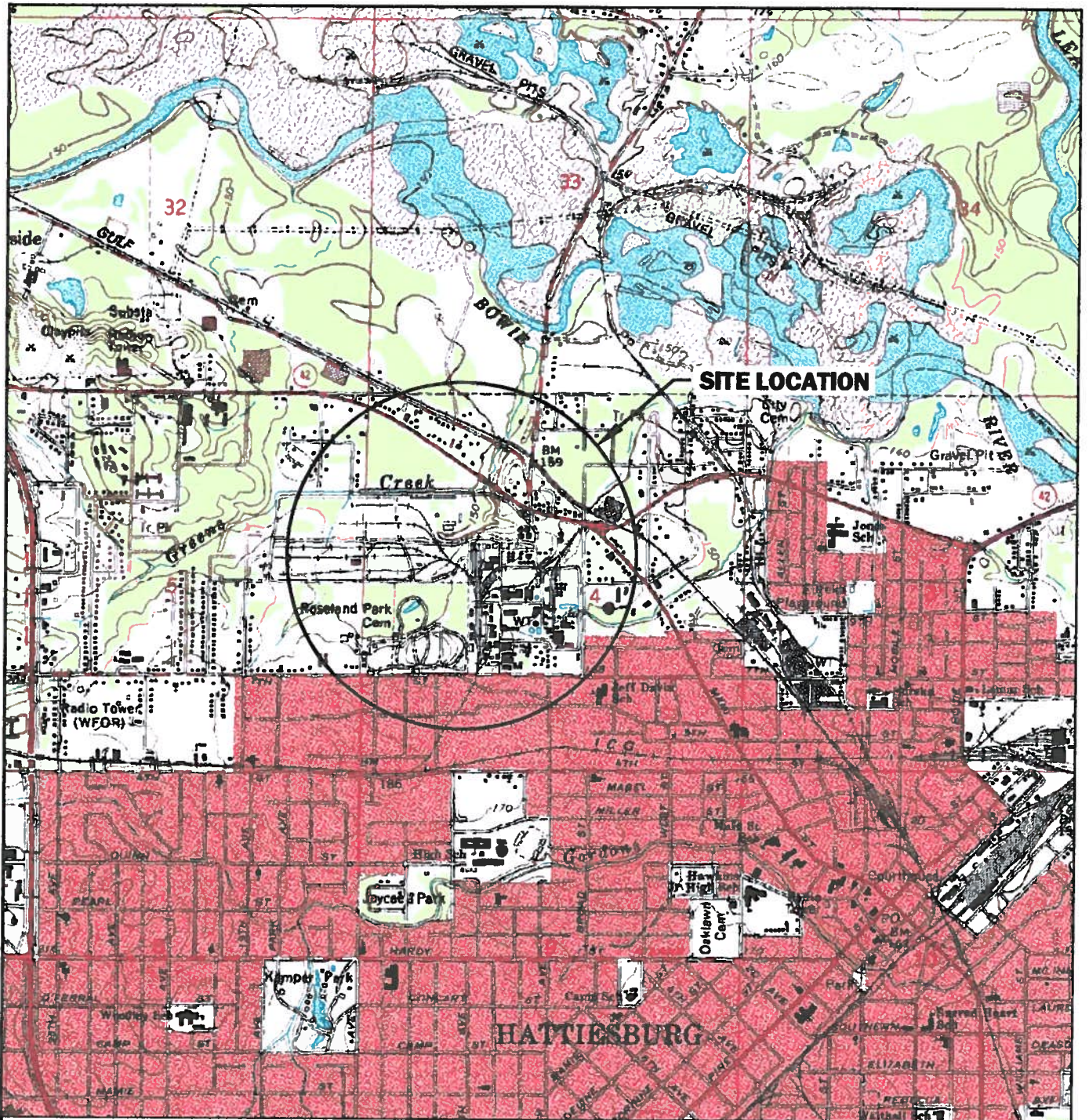
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below the TRG in the September 2009 sampling event. However, neither dioxathion nor dioxenethion were detected during the November-December 2010 event.

No VOC parameters were detected in groundwater samples collected from monitoring well MW-24. Dioxenethion was detected in MW-24; however, a TRG for dioxenethion has not been established.

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FIGURES



**HERCULES INCORPORATED
HATTIESBURG, MISSISSIPPI**

Eco-Systems, Inc.

Consultants, Engineers and Scientists



SCALE: 1"=2000'	DRAWN BY: MTW	DATE: 11/26/07
	CHKD. BY:	DATE:

PROJECT NO. HER25080	CAD FILE HER25080-TOPO.dwg
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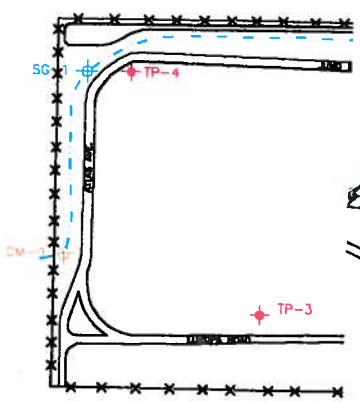
SITE LOCATION MAP

**FIGURE
1**

SOURCE: DeLORME 3D TopoQuads - HATTIESBURG, MISSISSIPPI

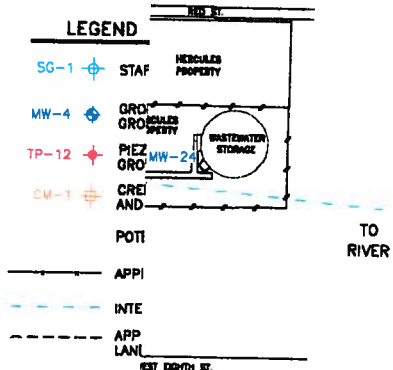


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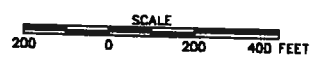


LEGEND

- SG-1 STAF HERCULES PROPERTY
- MW-4 GRD GRO HERCULES PROPERTY
- TP-12 PIEZ GRO
- CM-1 CREI AND
- POTI
- APPI
- INTE
- APP LANE
- NEXT EIGHTH ST.

NOTES

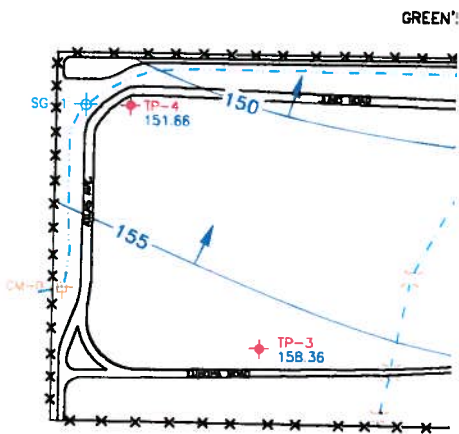
1. BASE MAP PRC



co-Systems, Inc. consultants, Engineers and Scientists Meridian, MS • Mobile, AL Houston, TX • Nashville, TN • Atlanta, GA Hattiesburg, MS • Gulfport, MS	HERCULES INCORPORATED HATTIESBURG, MISSISSIPPI	PROJECT No. HER12020128 CAD FILE NAME HER12020128-FIG3.dwg			
	SITE MAP	<table border="1"> <tr> <td>FIGURE</td> <td>REVISION</td> </tr> <tr> <td>2</td> <td>0</td> </tr> </table>	FIGURE	REVISION	2
FIGURE	REVISION				
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RESIDENTIAL/COMMERCIAL



RESIDENTIAL/COMMERCIAL

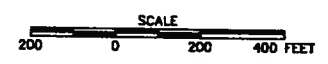
ZEON CHEMICAL CORPORATION

LEGEND

- SG-1 STAFF GAUGE LOCAT
- MW-4 GROUNDWATER MONI
GROUNDWATER ELEV
- TP-12 PIEZOMETER LOCATI
GROUNDWATER ELEV
- CM-1 CREEK MEDIA SAMPL
AND IDENTIFICATION
- 160 POTENTIOMETRIC SURF
- APPROXIMATE PROPE
- - - - - INTERMITTENT DRAIN
- - - - - APPROXIMATE BOUND
LANDFILL AREA

NOTES

1. BASE MAP PROVIDED BY HERCI



co-Systems, Inc.
consultants, Engineers and Scientists
 Houston, MS • Meridian, MS • Mobile, AL
 Houston, TX • Nashville, TN • Atlanta, GA
 Hattiesburg, MS • Gulfport, MS

HERCULES INCORPORATED
HATTIESBURG, MISSISSIPPI

POTENTIOMETRIC
SURFACE MAP
DECEMBER, 2010

PROJECT No. HER25000	
CAD FILE NAME HER25000-FIGURE3.dwg	
FIGURE 3	REVISION 0

TABLES

TABLE 1
SUMMARY OF GROUNDWATER ELEVATION DATA
November 2010
Hercules, Incorporated
Hattiesburg, Mississippi

WELL NO.	TOC ELEVATION (ft.) ¹	WATER DEPTH (ft) ²	GROUNDWATER ELEVATION (ft.)
PERMANENT MONITOR WELLS			
MW-1	174.12	NA ³	NA
MW-2	160.07	7.89	152.18
MW-3	160.03	9.19	150.84
MW-4	159.75	12.04	147.71
MW-5	160.99	11.79	149.20
MW-6	174.05	10.72	163.33
MW-7	183.96	15.95	168.01
MW-8	179.99	16.10	163.89
MW-9	181.97	13.81	168.16
MW-10	159.88	12.63	147.25
MW-11	157.18	9.33	147.85
MW-12	162.17	9.99	152.18
MW-13	175.23	10.86	164.37
MW-14	169.23	14.94	154.29
MW-15	172.21	17.41	154.80
MW-16	175.62	17.99	157.63
MW-17	186.13	19.21	166.92
MW-18	165.31	7.11	158.20
MW-19	172.25	12.17	160.08
MW-20	168.62	7.71	160.91
MW-21	163.66	4.05	159.61
MW-22	167.62	7.37	160.25
MW-23	162.38	4.85	157.53
MW-24	164.98	8.64	156.34
PIEZOMETERS			
TP-1	172.18	NA ³	NA
TP-2	171.72	12.84	158.88
TP-3	169.74	11.38	158.36
TP-4	163.64	11.98	151.66
TP-5	160.54	NA ³	NA
TP-6	158.63	10.30	148.33
TP-7	167.17	10.17	157.00
TP-8	183.79	16.06	167.73
TP-9	163.44	NA ³	NA
TP-10	179.69	15.71	163.98
TP-11	162.26	NA ³	NA
TP-12	159.95	12.82	147.13
TP-13	156.99	9.30	147.69
TP-14	162.59	6.79	155.80
TP-16	179.72	14.52	165.20
TP-17	182.71	17.70	165.01

NOTES:

- 1- Elevations are in feet relative to mean sea level.
- 2 - Depth to water is in feet below top of casing. Staff gauge readings are in feet above the base of the staff.
- 3 - Data not available.

Location	Date	Concentration (mg/L)															
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane	Bromonethane	Chloroethane	Chloroethane	Dibromochloroethane	1,2-dichloroethane	Isopropyl Benzene	methylcyclohexane	methyl ethyl ketone	methyl isobutyl ketone	
CM-03	Feb-03	NA	3.66	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	8.42	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	NA	NA	
	Aug-05	< 25	1.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	1.40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	1.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	1.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	Feb-07	63	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	May-07	< 25	4.80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	May-08	< 25	1.90	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0	
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0		
Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	< 5.0	< 10.0	< 10.0		
CM-04	Feb-03	NA	2.25	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	3.43	< 10.0	< 10.0	< 10.0	< 10.0	< 13.0	NA	NA	
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	31	< 1.0	< 1.0	< 1.0	1.40	< 1.0	< 1.0	< 1.0	< 1.0	NA	17.0	NA	< 5.0	160	< 10.0	
	Feb-07	160	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-09	< 25	4.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
TRG		608	5.0	100	5.0	0.155	5.0		8.52	3.64	1.43	0.126	70	679	5.0	1,910	139
CM-05	Feb-03	NA	4.04	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 12.0	< 10.0	< 10.0	< 10.0	< 10.0	< 13.0	NA	NA	
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-09	< 25	4.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Dec-09	47	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		

Notes:

- NA = no analysis performed for the compound
- "<" indicates that the concentration of the analyte is less than the value shown.
- Results shown in bold indicate that the concentration exceeds the TRG.
- TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Voluntary
- NE = TRG not yet established for the compound
- ND = non-detect / no detection limit available
- B = compound detected in the associated method blank
- J = estimated value
- *** indicates that although the compound was not detected above the associated reporting limit, the repo

Location	Date	MDEQ Tier 1						MDEQ Tier 2									
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane	Bromomethane	Chloroethane	Chloroacetylene	Dibromochloroethane	cis-1,2-dichloroethane	Isopropylbenzene	methylbenzene chloride	methyl ethyl ketone	methyl isobutyl ketone	
MW-02	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	32	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
MW-03	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	7.5	NA	< 5.0	54	< 10.0	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Nov-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
MW-04	Dec-02	ND	14.0	1.81	10.0	ND	ND	ND	63	1.72	ND	ND	1.26	ND	NA	NA	
	Feb-03	NA	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 12.0	< 10.0	< 10.0	< 10.0	< 10.0	< 13.0	NA	NA	
	Aug-03	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	NA	NA	
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	3.60	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
TRG		608	5.0	100	5.0	0.155	5.0		8.52	3.64	1.43	0.126	70	679	5.0	1,910	139

Notes:
 NA = no analysis performed for the compound
 "<" indicates that the concentration of the analyte is less than the value shown.
 Results shown in bold indicate that the concentration exceeds the TRG.
 TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Volume
 NE = TRG not yet established for the compound
 ND = non-detect / no detection limit available
 B = compound detected in the associated method blank
 J = estimated value
 *** indicates that although the compound was not detected above the associated reporting limit, the rep

Location	Date	MDEQ Tier 1							MDEQ Tier 2								
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Bromomethane	Chloroethane	Chloroethane	Dibromochloroethane	cis-1,2-dichloroethane	Isopropyl Benzene	methylcyclohexane	methyl ethyl ketone	methyl isobutyl ketone
MW-05	Aug-05	< 25	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	< 25	< 1.0	1.80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	< 1.0	1.20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	52	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25	< 1.0	1.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	85	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	27	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
MW-06	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	56	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	490	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
MW-07	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	93	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
TRG		608	5.0	100	5.0	0.155	5.0		8.52	3.64	1.43	0.126	70	679	5.0	1,910	139

Notes:

NA = no analysis performed for the compound

< indicates that the concentration of the analyte is less than the value shown.

Results shown in bold indicate that the concentration exceeds the TRG.

TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Voluntary

NE = TRG not yet established for the compound

ND = non-detect / no detection limit available

B = compound detected in the associated method blank

J = estimated value

*** indicates that although the compound was not detected above the associated reporting limit, the repo

Location	Date	Analytes														
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane	Bromomethane	Chloroethane	Chloroacetone	Dibromochloroethane	cis-1,2-dichloroethane	Isopropylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone
MW-08	Dec-02	ND	6,900	290	16,000	1,800	20	< 4.07	66	39.2	4.45	19	4.60	26.1	NA	NA
	Feb-03	NA	< 500	230	12,000	1,300	80	< 10.0	85.5	3.34	< 10.0	17.5	4.35	< 13.0	NA	NA
	Aug-05	< 6300	18,000	< 250	3,500	510	500	< 250	< 250	< 250	NA	NA	NA	< 1,300	< 10.0	< 10.0
	Nov-05	< 2,500	17,000	160	1,000	260	< 100	< 100	< 100	< 100	NA	NA	NA	< 500	< 10.0	< 10.0
	Feb-06	< 2,500	11,000	160	480	130	< 100	< 100	< 100	< 100	NA	NA	NA	< 500	< 10.0	< 10.0
	May-06	< 630	11,000	170	2,200	280	< 25	< 25	< 25	< 25	NA	29	NA	380	< 10.0	< 10.0
	Aug-06	750	15,000	220	640	450	< 1.0	< 1.0	3.8	< 1.0	NA	34	NA	510	< 10.0	< 10.0
	Nov-06	< 2,500	13,000	< 100	330	< 100	< 100	< 100	< 100	< 100	NA	< 100	NA	< 500	< 1,000	< 1,000
	Feb-07	< 250	990	24	840	100	< 10	< 10	< 10	< 10	NA	< 10	NA	< 50	< 100	< 100
	May-07	< 2,500	9,600	220	6,100	890	< 50	< 50	< 50	< 50	NA	< 50	NA	< 250	< 500	< 500
	Nov-07	< 2,500	14,000	< 100	370	< 100	< 100	< 100	< 100	< 100	NA	< 100	NA	< 500	< 10.0	< 10.0
	May-08	< 2,500	3,200	350	15,000	2,200	< 100	< 100	< 100	< 100	NA	NA	NA	< 500	< 10.0	< 10.0
	Nov-08	< 2,500	3,400	150	1,800	460	< 100	< 100	< 100	< 100	NA	NA	NA	< 500	< 10.0	< 10.0
May-09	< 620	540	110	2,300	1,300	< 25	< 25	< 25	< 25	NA	< 25	NA	< 125	< 250	< 250	
Dec-09	< 620	< 1,000	180	2,700	610	< 25	< 25	< 25	< 25	NA	< 25	NA	380	< 250	< 250	
May-10	< 250	2,900	180	8,000	1,400	63	< 10*	< 10*	< 10*	NA	< 10	NA	230	< 100	< 100	
Dec-10	< 1,200	6,000	150	1,000	300	< 50*	< 50*	< 50*	< 50*	NA	< 25	NA	560	< 500	< 500	
MW-09	Dec-02	ND	9.15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.48	NA	NA
	Feb-03	NA	64	J 5.85	21	J 9.83	J 1.43	< 10.0	19.7	< 10.0	< 10.0	< 10.0	J 1.92	< 13.0	NA	NA
	Aug-05	< 25	12	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	< 25	16.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	< 25	18.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	< 25	8.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	34	18.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	6.80	< 10.0	48
	Feb-07	< 25.0	7.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25.0	8.40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25.0	9.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25.0	3.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	46	1.90	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
May-09	< 25	1.10	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-09	210	1.60	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	3.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
MW-10	Aug-03	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	NA	NA	
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0		
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
TRG		608	5.0	100	5.0	0.155	5.0	8.52	3.64	1.43	0.126	70	679	5.0	1,910	139

Notes:
 NA = no analysis performed for the compound
 "<" indicates that the concentration of the analyte is less than the value shown.
 Results shown in bold indicate that the concentration exceeds the TRG.
 TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Volume
 NE = TRG not yet established for the compound
 ND = non-detect / no detection limit available
 B = compound detected in the associated method blank
 J = estimated value
 *** indicates that although the compound was not detected above the associated reporting limit, the rep

Location	Date																
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane	Bromomethane	Chloroethane	Chloroethane	Dibromochloroethane	cis-1,2-dichloroethane	Isopropylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone	
MW-11	Dec-02	ND	114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	
	Feb-03	NA	J 6.39	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 12.0	< 10.0	< 10.0	< 10.0	< 10.0	< 13.0	NA	NA	
	Aug-03	NA	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 5.0	NA	NA	
	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-09	42	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0		
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0		
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0		
MW-12	Aug-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	91	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-08	32	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-09	28	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	< 5.0	< 10.0	< 10.0	
MW-13	Aug-05	< 25	120	10	260	96	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Nov-05	29	78	9.3	53	56	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	Feb-06	< 25	110	22	77	63	< 1.0	< 1.6	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0	
	May-06	< 25	48	5.4	110	33	< 1.0	< 1.0	< 1.0	< 1.0	NA	1.00	NA	< 5.0	< 10.0	< 10.0	
	Aug-06	< 25	72	17	45	35	< 1.0	< 1.0	< 1.0	< 1.0	NA	3.10	NA	< 5.0	< 10.0	< 10.0	
	Nov-06	< 25	94	19	27	30	< 1.0	< 1.0	< 1.0	< 1.0	NA	4.00	NA	< 5.0	< 10.0	< 10.0	
	Feb-07	< 25	160	14	680	120	< 1.0	< 1.0	< 1.0	< 1.0	NA	2.50	NA	< 5.0	< 10.0	< 10.0	
	May-07	< 25	320	13	1480	130	< 1.0	< 1.0	< 1.0	< 1.0	NA	1.30	NA	< 5.0	< 10.0	< 10.0	
	Nov-07	< 25	180	9.0	560	140	< 1.0	< 1.0	< 1.0	< 1.0	NA	1.20	NA	< 5.0	< 10.0	< 10.0	
	May-08	< 250	780	23	3,200	260	< 20	< 20	< 20	< 20	NA	< 20	NA	< 100	< 200	< 200	
	Nov-08	< 250	250	14.0	880	180	6.10	< 20	< 20	< 20	NA	1.80	NA	< 100	< 200	< 200	
	May-09	< 620	1,200	< 25	3,500	340	< 25	< 25	< 25	< 25	NA	< 25	NA	< 125	< 250	< 250	
	Dec-09	< 620	790	29	2,080	310	< 25	< 25	< 25	< 25	NA	< 25	NA	< 120	< 250	< 250	
	May-10	< 500	2,600	110	4,000	1,900	< 20*	< 20*	< 20*	< 20*	NA	< 20	NA	< 100*	< 200	< 200*	
	Dec-10	< 250	530	25	970	230	< 10*	< 10*	< 10*	< 10*	NA	< 10	NA	< 50*	< 100	< 100	
TRG		608	5.0	100	5.0	0.155	5.0		8.52	3.64	1.43	0.126	70	679	5.0	1,910	139

Notes:

- NA = no analysis performed for the compound
- < indicates that the concentration of the analyte is less than the value shown.
- Results shown in bold indicate that the concentration exceeds the TRG.
- TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Volatil
- NE = TRG not yet established for the compound
- ND = non-detect / no detection limit available
- B = compound detected in the associated method blank
- J = estimated value
- * * * indicates that although the compound was not detected above the associated reporting limit, the rep

Location	Date	Concentration (mg/L)															
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,1-Dichloroethane	Bromochloroethane	Chloroethane	Chloroacetylene	Dibromochloroethane	cis-1,2-dichloroethane	Isopropylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone	
MW-14	Aug-05	34	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	180	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	440	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	72	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	650	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	590	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	260	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	NA	< 2.0	NA	< 10	< 20.0	< 20.0
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
MW-15	Aug-05	84	1.7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	1,500	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	350	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	62	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	2,300	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	1,300	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA	< 5.0	NA	< 25	< 50	< 50
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
MW-16	Aug-05	< 25	2.30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	< 25	1.20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
Dec-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	1.10	< 1.0	< 1.0	< 1.0	1.30	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
TRG		608	5.0	100	5.0	0.155	5.0		8.52	3.64	1.43	0.126	70	679	5.0	1,910	139

Notes:

- NA = no analysis performed for the compound
- < indicates that the concentration of the analyte is less than the value shown.
- Results shown in bold indicate that the concentration exceeds the TRG.
- TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Volbmt
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- J = estimated value
- *** indicates that although the compound was not detected above the associated reporting limit, the repo

Location	Date	Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane	Bromomethane	Chloroethane	Chloroacetaldehyde	Dibromochloroethane	cis-1,2-dichloroethane	Isopropylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone
MW-17	Aug-05	< 6300	6,200	340	1,500	1,200	< 250	< 250	< 250	< 250	NA	NA	NA	< 1,300	NA	NA
	Nov-05	< 13,000	1,500	< 500	17,000	1,600	< 500	< 500	< 500	< 500	NA	NA	NA	< 2,500	NA	NA
	Feb-06	< 13,000	1,300	600	37,000	2,600	< 500	< 500	< 500	< 500	NA	NA	NA	< 2,500	NA	NA
	May-06	< 6,300	4,200	530	30,000	< 250	< 250	< 250	< 250	< 250	NA	NA	NA	< 2,500	NA	NA
	Aug-06	570	1,000	610	33,000	3,000	< 1.0	< 1.0	3.0	< 1.0	NA	26	NA	< 1,300	NA	NA
	Nov-06	< 5,000	2,100	470	26,000	< 200	< 200	< 200	200	< 200	NA	26	NA	< 100	< 10.0	< 10.0
	Feb-07	< 5,000	3,300	810	48,000	3,400	< 200	< 200	< 200	< 200	NA	< 200	NA	< 1,000	< 2,000	< 2,000
	May-07	740	5,300	770	32,000	2,800	< 20	< 20	< 20	< 20	NA	< 200	NA	< 1,000	< 2,000	< 2,000
	Nov-07	< 5,000	3,000	890	45,000	4,600	< 200	< 200	< 200	< 200	NA	< 20	NA	< 100	< 200	< 2,000
	May-08	< 5,000	4,800	930	47,000	3,600	< 200	< 200	< 200	< 200	NA	< 200	NA	< 1,000	< 2,000	< 2,000
	Nov-08	< 5,000	1,800	720	34,000	3,500	< 200	< 200	< 200	< 200	NA	< 200	NA	< 1,000	< 2,000	< 2,000
	May-09	< 5,000	8,100	640	39,000	2,900	< 200	< 200	< 200	< 200	NA	< 200	NA	< 1,000	< 2,000	< 2,000
Dec-09	< 12,000	4,500	1,200	54,000	7,100	< 500	< 500	< 500	< 500	NA	< 200	NA	< 1,000	< 2,000	< 2,000	
May-10	< 2,500*	7,500	740	40,000	8,400	< 100*	< 100*	< 100*	< 100*	NA	< 500	NA	< 2,500	< 5,000	< 5,000	
Dec-10	< 12,000	< 500	760	32,000	5,900	< 100*	< 100*	< 100*	< 100*	NA	< 500	NA	660	< 1,000	< 1,000*	
MW-18	Aug-05	< 25	10.0	45	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	< 25	3.90	26	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	< 25	4.20	31	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	< 25	6.50	35	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	4.80	34	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	61	2.90	23	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	< 25	4.10	28	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	4.00	33	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25	1.20	26	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	1.70	31	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	< 25	< 1.0	23	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	< 25	< 1.0	24	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
Dec-09	< 25	< 1.0	21	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	1.1	20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	< 1.0	18.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
MW-19	Aug-05	< 25	20	7.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Nov-05	< 25	19	6.40	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	Feb-06	< 25	22	9.80	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	NA	NA	< 5.0	< 10.0	< 10.0
	May-06	28	21	7.20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Aug-06	< 25	18	6.30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-06	< 25	20	6.20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Feb-07	< 25	32	8.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-07	< 25	36	9.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-07	< 25	44	10.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-08	< 25	66	13.0	6.70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Nov-08	< 25	58	9.70	< 1.0	1.10	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-09	< 25	65	14.0	11.0	4.70	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
Dec-09	< 25	64	12.0	4.50	2.90	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
May-10	< 25	52	10.0	3.20	3.60	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
Dec-10	< 25	61	9.10	< 1.0	2.70	< 1.0	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0	
TRG	608	5.0	100	5.0	0.155	5.0	8.52	3.64	1.43	0.126	70	679	5.0	1,910	139	

Notes:
 NA = no analysis performed for the compound
 < indicates that the concentration of the analyte is less than the value shown.
 Results shown in bold indicate that the concentration exceeds the TRG.
 TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Volant
 NE = TRG not yet established for the compound
 ND = non-detect / no detection limit available
 B = compound detected in the associated method blank
 J = estimated value
 *** indicates that although the compound was not detected above the associated reporting limit, the rep

Location	Date																
		Acetone	Benzene	Chlorobenzene	Carbon Tetrachloride	Chloroform	1,2-Dichloroethane		Bromonaphthalene	Chloroethane	Chloroethane	Dibromochloroethane	cis-1,2-dichloroethane	Isopropylbenzene	methylene chloride	methyl ethyl ketone	methyl isobutyl ketone
MW-20	Sep-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
MW-21	Sep-09	< 1,200*	4,400	170	< 50	6,800	< 50*	<	< 50*	< 50*	< 50*	NA	< 50	NA	< 250*	< 500	640
	May-10	< 1,200*	3,500	150	280	7,800	< 50*	<	< 50*	< 50*	< 50*	NA	< 50	NA	< 250*	< 500	< 500*
	Dec-10	< 1,200	4,400	180	< 50	7,300	84	<	< 50*	< 50*	< 50*	NA	< 50	NA	< 250*	< 500	510
MW-22	Sep-09	86	9.80	7.70	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-10	< 25	6.60	4.90	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Dec-10	< 25	6.30	2.30	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
MW-23	Sep-09	1,600*	9,200	190	< 50*	1,400	< 50*	<	< 100*	< 100*	< 100*	NA	< 100*	NA	290	< 500	1,300
	May-10	< 2,500*	10,000	180	< 100*	2,000	< 100*	<	< 100*	< 100*	< 100*	NA	< 100*	NA	< 500*	< 1,000	1,000
	Dec-10	< 2,500*	7,600	< 100	< 100*	2,900	< 100*	<	< 100*	< 100*	< 100*	NA	< 100*	NA	< 500*	< 1,000	< 1,000*
MW-24	Sep-09	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	May-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
	Dec-10	< 25	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	<	< 1.0	< 1.0	< 1.0	NA	< 1.0	NA	< 5.0	< 10.0	< 10.0
TRG		608	5.0	100	5.0	0.155	5.0		8.52	3.64	1.43	0.126	70	679	5.0	1,910	139

Notes:

NA = no analysis performed for the compound

< indicates that the concentration of the analyte is less than the value shown.

Results shown in bold indicate that the concentration exceeds the TRG.

TRG = MDEQ Tier 1 Target Remedial Goals per the Final Regulations Governing Brownfields Values

NE = TRG not yet established for the compound

ND = non-detect / no detection limit available

B = compound detected in the associated method blank

J = estimated value

*** indicates that although the compound was not detected above the associated reporting limit, the rep

TABLE 3
SUMMARY OF ANALYTICAL RESULTS
December 2010
Hercules Incorporated

Sample Location	Sample Date	PARAMETER			
		Dioxenethion	Dioxathion (cis)	Dioxathion (trans)	Total Dioxathion
CM-00	11/29/2010	ND	ND	ND	ND
CM-01	11/29/2010	ND	ND	ND	ND
CM-02	11/29/2010	ND	ND	ND	ND
CM-03	11/29/2010	0.49	ND	ND	ND
CM-04	11/29/2010	1.5	ND	0.62	0.62
CM-05	11/29/2010	1.9	ND	ND	ND
MW-02	11/30/2010	ND	ND	ND	ND
MW-03	11/30/2010	ND	ND	ND	ND
MW-04*	12/1/2010	22.2	ND	ND	ND
MW-05	12/1/2010	ND	0.74	0.56	1.30
MW-06	12/1/2010	ND	ND	ND	ND
MW-07	12/1/2010	ND	ND	ND	ND
MW-08*	12/2/2010	310	4.3	50.1	54.4
MW-09	12/2/2010	ND	6.6	1.20	7.8
MW-10	12/1/2010	ND	ND	ND	ND
MW-11	12/1/2010	1.00	ND	ND	ND
MW-12	12/1/2010	0.75	ND	ND	ND
MW-13*	12/2/2010	6.6	1.50	0.60	2.1
MW-14*	12/2/2010	ND	5.10	1.00	6.1
MW-15*	12/2/2010	ND	2.90	2.80	5.7
MW-16*	12/2/2010	ND	1.60	ND	1.6
MW-17*	12/3/2010	3045	23.7	4.20	27.9
MW-18	12/3/2010	ND	2.60	5.60	8.2
MW-19	12/2/2010	ND	79.6	5.10	84.7
MW-20	12/3/2010	3.40	0.58	6.10	6.68
MW-21	12/3/2010	10.2	ND	ND	ND
MW-22	12/3/2010	6.20	ND	ND	ND
MW-23	12/3/2010	ND	ND	ND	ND
MW-24	12/1/2010	0.46	ND	ND	ND
MDEQ TRG		NA	NA	NA	54.8

Note: All concentrations reported in micrograms per liter (ug/L)

* Denotes wells targeted by MDEQ for yearly sampling

Analysis conducted per Modified SW846

ND - non detect

Red denotes total dioxathion concentration exceeds MDEQ TRG

MDEQ TRG - Mississippi Department of Environmental Quality-Target Remedial Goal

TABLE 4

SUMMARY OF QA/QC SAMPLE ANALYTICAL RESULTS

Location	Concentrations in µg/L				
	Benzene	Carbon Tetrachloride	Chlorobenzene	Toluene	Chloroform
MW-04	< 1.0	< 1.0	< 1.0	< 1	< 1.0
MW-04 FD01	< 1.0	< 1.0	< 1.0	< 1	< 1.0
RPD	0%	0%	0%	0%	0%
MW-13	530	970	25	< 10	230
MW-13 FD02	530	970	28	< 10	260
RPD	0%	0%	11.3%	0%	12.2%
MW-18	< 1.0	< 1.0	18	< 1	< 1.0
MW-18 FD03	< 1.0	< 1.0	20	< 1	< 1.0
RPD	0%	0%	10.5%	0%	0%
RS-01	< 1.0	< 1.0	< 1.0	1.9	71
RS-02	< 1.0	< 1.0	< 1.0	1.7	68
RS-03	< 1.0	< 1.0	< 1.0	1.8	75
RS-04	< 1.0	< 1.0	< 1.0	1.5	61
TB-01	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TB-02	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TB-03	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

1 - "<" indicates that the concentration of the analyte is less than the concentrations shown.

2 - RPD = relative percent difference.

TABLE 4 (CONTINUED)

SUMMARY OF QA/QC SAMPLE ANALYTICAL RESULTS

Location	Concentrations in $\mu\text{g/L}$		
	Dioxenethion	cis-Dioxathion	trans-Dioxathion
MW-4	22.2	< 0.400	< 0.400
MW-4 FD01	15.5	< 0.400	< 0.400
RPD	35.5%	0.000%	0.000%
MW-13	6.6	1.5	0.60
MW-13 FD02	6.3	< 0.400	< 0.400
RPD	4.65%	95.0%	40.0%
MW-18	< 0.400	2.6	5.6
MW-18 FD03	1.9	< 0.400	6.4
RPD	130%	147%	13.3%
RS01	0.55	< 0.400	< 0.400
RS02	< 0.400	< 0.400	< 0.400
RS03	1.3	< 0.400	0.89
RS04	2.9	< 0.400	< 0.400

1- "<" indicates that the concentration of the analyte is less than the concentration shown.

2- RPD = relative percent difference.

APPENDICES

**APPENDIX A
GROUNDWATER COLLECTION LOGS**



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-04
Site Location: Hattiesburg, MS

Start Date: 12/1/2010 Finish Date: 12/1/2010
Sample Technician: Jossh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 18.74
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 6.70
Calculated Well Volume (V=6hd³)
(V = vol in gal; D = well diam. in ft): 1.09

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:39	12.04
12/1/2010	11:20	12.15
12/1/2010	11:45	12.12

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/1/2010 11:15	0.250	5.99	0.188	19.33	14.10	1.89	-63.9	
12/1/2010 11:20	0.500	6.02	0.189	19.79	10.97	1.43	-70.1	
12/1/2010 11:25	0.750	6.02	0.189	19.92	9.24	1.32	-71.1	
12/1/2010 11:30	1.000	6.01	0.189	19.98	8.38	1.08	-75.8	
12/1/2010 11:35	1.250	6.02	0.190	20.18	8.10	1.01	-77.6	
12/1/2010 11:40	1.500	6.02	0.190	20.39	6.46	0.79	-71.0	
12/1/2010 11:45	1.750	6.01	0.190	20.51	6.00	0.75	-80.0	
12/1/2010 11:50	2.000	6.01	0.190	20.65	5.55	0.71	-80.9	

Sample Identification: ASH-MW4-1212010, ASH-FD1-1212010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Date: 12/1/2010

Jossh Brown + Chris Terrell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/1/2010	11:50	3-40 mL VOA; 1 liter Amber	
12/1/2010	11:50	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-10
Site Location: Hattiesburg, MS

Start Date: 12/1/2010 Finish Date: 12/1/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 18.50
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 5.87
Calculated Well Volume (V=6hd³)
(V = vol in gal; D = well diam. in ft): 0.96

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:36	12.63
12/1/2010	9:55	13.50
12/1/2010	10:15	13.37

WELL DEVELOPMENT/PURGING DATA

Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/1/2010 9:50	0.250	5.58	0.043	19.48	157	1.72	124.1	
12/1/2010 9:55	0.500	5.57	0.041	19.19	125	1.32	110.3	
12/1/2010 10:00	0.750	5.53	0.041	19.8	100	1.08	129.0	
12/1/2010 10:05	1.000	5.47	0.039	19.68	80	0.86	161.2	
12/1/2010 10:10	1.250	5.46	0.039	19.70	62	0.81	168.5	
12/1/2010 10:15	1.500	5.39	0.039	19.64	50	0.74	198.9	
12/1/2010 10:20	1.750	5.39	0.038	19.65	52	0.65	199.5	
12/1/2010 10:25	2.000	5.39	0.038	19.65	55	0.60	200.0	
12/1/2010 10:30	2.250	5.4	0.038	19.67	50	0.59	200.6	
12/1/2010 10:35	2.500	5.39	0.038	19.66	45	0.55	201.2	
12/1/2010 10:40	2.750	5.38	0.038	18.98	41.1	0.49	211.2	
12/1/2010 10:45	3.000	5.37	0.038	18.93	30	0.54	211.8	
12/1/2010 10:50	3.250	5.36	0.038	18.86	20	0.52	213.3	
12/1/2010 10:55	3.500		0.038	18.85	9	0.51	213.4	

Sample Identification: ASH-MW10-1212010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Josh Brown & Chris Terrell Date: 12/1/2010

GROUNDWATER SAMPLE CONTAINERS

Date	Time	Sample Container	Preservative
12/1/2010	10:55	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-12
Site Location: Hattiesburg, MS

Start Date: 12/1/2010 Finish Date: 12/1/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 12.00
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 2.10
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 0.34

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:50	9.90
12/1/2010	13:32	11.3

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/1/2010 13:25	0.250	5.57	0.107	20.62	36.20	1.83	133.1	
12/1/2010 13:30	0.500	5.50	0.104	20.64	25.40	1.43	135.0	
12/1/2010 13:35	0.750	Well dried up, mobilized to MW-06						

Sample Identification: ASH-MW12-12012010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Date: 12/1/2010

Josh Brown + Chris Terrell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/1/2010	14:15	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-13
Site Location: Hattiesburg, MS

Start Date: 12/2/2010 Finish Date: 12/2/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 18.50
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 7.64
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 1.25

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:50	10.86
12/2/2010	11:45	11.92
12/2/2010	11:45	11

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/2/2010 11:40	0.250	5.38	0.212	21.84	5.55	1.39	115.0	
12/2/2010 11:45	0.500	5.26	0.203	21.98	5.03	1.29	115.7	
12/2/2010 11:50	0.750	5.25	0.200	22.06	5.05	0.96	118.0	
12/2/2010 11:55	1.000	5.25	0.201	22.08	5.05	0.90	117.9	
12/2/2010 12:00	1.250	5.26	0.201	22.09	5.00	0.89	118.0	

Sample Identification: ASH-MW13-12022010, ASH-FD2-12022010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Josh Brown & Chris Terrell Date: 12/2/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/2/2010	12:00	3-40 mL VOA; 1 liter Amber	
12/2/2010	12:00	3-40 mL VOA, 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-14
Site Location: Hattiesburg, MS

Start Date: 12/2/2010 Finish Date: 12/2/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 24.30
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 9.36
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 1.53

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:03	14.94
12/2/2010	10:55	15.00
12/2/2010	11:00	14.98

WELL DEVELOPMENT/PURGING DATA

Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/2/2010 10:45	0.250	6.33	0.869	21.10	35.2	3.00	-45.2	
12/2/2010 10:50	0.500	6.33	0.868	21.06	22.6	1.65	-47.7	
12/2/2010 10:55	0.750	6.32	0.864	20.98	19.0	0.80	-45.5	
12/2/2010 11:00	1.000	6.32	0.864	21.07	12.0	0.53	-50.9	
12/2/2010 11:05	1.250	6.32	0.864	21.14	14.0	0.48	-48.7	Effervescence Observed
12/2/2010 11:10	1.500	6.33	0.866	21.25	19.9	0.49	-49.5	Effervescence Observed
12/2/2010 11:15	1.750	6.32	0.864	21.30	12.0	0.48	-48.0	
12/2/2010 11:20	2.000	6.33	0.865	21.28	10.0	0.49	-48.5	

Sample Identification: ASH-MW14-12022010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Josh Brown & Chris Terrell Date: 12/2/2010

GROUNDWATER SAMPLE CONTAINERS

Date	Time	Sample Container	Preservative
12/2/2010	11:20	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-15
Site Location: Hattiesburg, MS

Start Date: 12/2/2010 Finish Date: 12/2/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 26.50
Approximate Depth of Water Column (ft)
(h = TD of well - water level [TOC]): 9.09
Calculated Well Volume (V = 6hd²)
(V = vol in gal; D = well diam. in ft): 1.48

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:05	17.41
12/2/2010	10:15	18.02
12/2/2010	10:30	17.81

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/2/2010 10:15	0.250	6.31	1.050	20.45	22.2	2.26	-50.6	
12/2/2010 10:20	0.500	6.32	1.056	20.36	29.6	1.56	-54.8	
12/2/2010 10:25	0.750	6.31	1.055	20.55	13.0	0.80	-59.1	
12/2/2010 10:30	1.000	6.32	1.054	20.55	10.0	0.75	-58.9	

Sample Identification: ASH-MW15-12022010, ASH-RS3-12022010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Josh Brown + Chris Terrell Date: 12/2/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/2/2010	10:30	3-40 mL VOA; 1 liter Amber	
12/2/2010	10:40	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-16
Site Location: Hattiesburg, MS

Start Date: 12/2/2010 Finish Date: 12/2/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 28.50
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 10.51
Calculated Well Volume (V=6hd³)
(V = vol in gal; D = well diam. in ft): 1.72

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:07	17.99
12/2/2010	9:30	18.90
12/2/2010	9:45	18.70

WELL DEVELOPMENT/PURGING DATA

Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/2/2010 9:30	0.250	6.24	1.012	19.47	3.29	2.00	-88.3	
12/2/2010 9:35	0.500	6.23	1.004	20.21	3.50	1.36	-88.1	
12/2/2010 9:40	0.750	6.23	1.004	20.32	3.00	1.70	-88.8	
12/2/2010 9:45	1.000	6.23	1.004	20.58	4.20	1.08	-89.4	
12/2/2010 9:50	1.250	6.24	1.003	20.76	3.00	0.99	-90.7	

Sample Identification: ASH-MW16-21022010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Date: 12/2/2010
Josh Brown + Chris Terrell

GROUNDWATER SAMPLE CONTAINERS

Date	Time	Sample Container	Preservative
12/2/2010	9:55	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-17
Site Location: Hattiesburg, MS

Start Date: 12/3/2010 Finish Date: 12/3/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 22.70
Approximate Depth of Water Column (ft)
(h = TD of well - water level [TOC]): 3.49
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 0.57

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:44	19.21
12/3/2010	9:40	20.11
12/3/2010	9:50	19.82

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/3/2010 9:35	0.250	6.11	1.027	21.43	3.25	3.00	-73.7	
12/3/2010 9:40	0.500	6.10	1.018	22.04	3.25	1.94	-54.3	
12/3/2010 9:45	0.750	6.09	1.020	22.10	3.25	1.15	-88.8	
12/3/2010 9:50	1.000	6.09	1.022	22.17	3.25	0.99	-90.4	
12/3/2010 9:55	1.250	6.07	1.022	22.16	3.25	1.00	-90.0	

Sample Identification: ASH-MW17-12032010, ASH-RS4-12032010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell Date: 12/3/2010
Josh Brown + Chris Terrell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/3/2010	9:55	3-40 mL VOA; 1 liter Amber	
12/3/2010	10:05	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-18
Site Location: Hattiesburg, MS

Start Date: 12/3/2010 Finish Date: 12/3/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: Unknown
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): Unknown
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): Unknown

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:32	7.11
12/3/2010	10:25	8.00
12/3/2010	10:35	7.90

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/3/2010 10:25	0.250	6.28	0.717	23.27	68.3	1.80	-36.8	
12/3/2010 10:30	0.500	6.26	0.716	23.64	27.3	1.09	-38.7	
12/3/2010 10:35	0.750	6.25	0.715	23.79	18.8	0.85	-39.4	
12/3/2010 10:40	1.000	6.25	0.716	23.80	10.0	0.79	-39.3	

Sample Identification: ASH-MW18-12032010, ASH-FD3-12032010

Weather Conditions During Sampling: _____

Comments: _____

Signature: *Chris Terrell* Date: 12/3/2010
Josh Brown & Chris Terrell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/3/2010	10:40	3-40 mL VOA; 1 liter Amber	
12/3/2010	10:40	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-19
Site Location: Hattiesburg, MS

Start Date: 12/2/2010 Finish Date: 12/2/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: Unknown
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): Unknown
Calculated Well Volume ($V=6hd^2$)
(V = vol in gal; D = well diam. in ft): Unknown

Date	Time	Water Level (BTOC)
11/29/2010	14:02	12.17
12/2/2010	12:20	13.00
12/2/2010	12:30	12.50

Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/2/2010 12:20	0.250	6.29	0.432	23.55	1.57	1.48	-50.0	
12/2/2010 12:25	0.500	6.28	0.431	23.58	3.79	1.30	-53.0	
12/2/2010 12:30	0.750	6.28	0.431	23.71	4.00	1.19	-55.0	
12/2/2010 12:35	1.000	6.29	0.431	23.84	1.38	1.09	-57.8	

Sample Identification: ASH-MW19-12022010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell Date: 12/2/2010

Josh Brown + Chris Terrell

Date	Time	Sample Container	Preservative
12/2/2010	12:35	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-20
Site Location: Hattiesburg, MS

Start Date: 12/3/2010 Finish Date: 12/3/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 14.00
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 6.29
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 1.03

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:13	7.71
12/3/2010	11:00	8.00
12/3/2010	11:10	7.88

WELL DEVELOPMENT/PURGING DATA

Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/3/2010 11:00	0.250	6.18	0.389	23.40	8.27	1.68	-23.5	
12/3/2010 11:05	0.500	6.13	0.386	23.31	6.26	1.30	-23.7	
12/3/2010 11:10	0.750	6.12	0.384	23.27	5.00	1.20	-23.7	
12/3/2010 11:15	1.000	6.12	0.383	23.25	4.82	1.19	-23.7	

Sample Identification: ASH-MW20-12032010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Date: 12/3/2010
Josh Brown & Chris Terrell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/3/2010	11:15	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-21
Site Location: Hattiesburg, MS

Start Date: 12/3/2010 Finish Date: 12/3/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 16.00
Approximate Depth of Water Column (ft)
(h = TD of well - water level [TOC]): 11.95
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 1.95

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:27	4.05
12/3/2010	11:35	5.15
12/3/2010	11:45	4.15

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/3/2010 11:35	0.250	5.28	1.345	24.58	3.16	1.08	2.1	
12/3/2010 11:40	0.500	5.29	1.344	24.65	2.25	0.84	-3.9	
12/3/2010 11:45	0.750	5.29	1.332	24.66	2.15	0.77	-6.0	
12/3/2010 11:50	1.000	5.29	1.330	24.70	2.06	0.68	-9.6	
12/3/2010 11:55	1.250	5.29	1.332	24.69	2.00	0.69	-10.2	

Sample Identification: ASH-MW21-12032010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Josh Brown + Chris Terrell Date: 12/3/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/3/2010	11:55	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
 Project Number: ASH4202010169

Boring ID: MW-22
 Site Location: Hattiesburg, MS

Start Date: 12/3/2010 Finish Date: 12/3/2010
 Sample Technician: Josh Brown, Chris Terrell
 Purge/Sample Method: LF/LS
 Well Diameter (inches) 2"
 Total Depth of Well (ft) BTOC: 15.00
 Approximate Depth of Water Column (ft)
 (h= TD of well - water level [TOC]): 7.63
 Calculated Well Volume (V=6hd²)
 (V = vol in gal; D = well diam. in ft): 1.25

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:21	7.37
12/3/2010	12:45	8.00
12/3/2010	12:50	7.40

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/3/2010 12:40	0.250	6.36	0.447	24.25	6.85	2.20	-230.5	
12/3/2010 12:45	0.500	6.35	0.420	24.34	7.22	1.23	-234.4	
12/3/2010 12:50	0.750	6.35	0.406	24.29	9.92	1.18	-238.5	
12/3/2010 12:55	1.000	6.35	0.407	24.17	3.14	1.04	-237.0	
12/3/2010 13:00	1.250	6.35	0.401	24.14	3.22	1.01	-235.5	

Sample Identification: ASH-MW22-12032010

Weather Conditions During Sampling: _____

Comments: _____

Signature: *Chris Terrell for* Date: 12/3/2010
Josh Brown & Chris Terrell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/3/2010	13:00	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-23
Site Location: Hattiesburg, MS

Start Date: 12/3/2010 Finish Date: 12/3/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches) 2"
Total Depth of Well (ft) BTOC: 14.00
Approximate Depth of Water Column (ft)
(h= TD of well - water level [TOC]): 9.15
Calculated Well Volume (V=6hd²)
(V = vol in gal; D = well diam. in ft): 1.49

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:23	4.85
12/3/2010	12:00	5.32
12/3/2010	12:10	5.15

WELL DEVELOPMENT/PURGING DATA

Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/3/2010 12:00	0.250	5.64	2.047	23.29	11.80	1.98	-82.4	
12/3/2010 12:05	0.500	5.32	2.845	23.25	8.98	1.36	-88.0	
12/3/2010 12:10	0.750	5.34	2.830	23.34	9.23	0.92	-243.1	
12/3/2010 12:15	1.000	5.15	3.259	23.44	9.00	0.76	-240.0	
12/3/2010 15:20	1.250	5.16	3.251	23.38	7.12	0.70	-240.3	

Sample Identification: ASH-MW23-12032010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Date: 12/3/2010
Josh Brown & Chris Terrell

GROUNDWATER SAMPLE CONTAINERS

Date	Time	Sample Container	Preservative
12/3/2010	12:20	3-40 mL VOA; 1 liter Amber	



Groundwater Sample Collection Log

Project Name: Ashland Chemical (Hercules)
Project Number: ASH4202010169

Boring ID: MW-24
Site Location: Hattiesburg, MS

Start Date: 12/1/2010 Finish Date: 12/1/2010
Sample Technician: Josh Brown, Chris Terrell
Purge/Sample Method: LF/LS
Well Diameter (inches): 2"
Total Depth of Well (ft) BTOC: 13.00
Approximate Depth of Water Column (ft) (h= TD of well - water level [TOC]): 4.36
Calculated Well Volume (V=6hd²):
(V = vol in gal; D = well diam. in ft): 0.71

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	14:08	8.64
12/1/2010	15:00	9.72

WELL DEVELOPMENT/PURGING DATA								
Date/Time	Cumulative Volume (gal)	pH	Specific Conductivity (mScm)	Temperature (Celsius)	Turbidity (NTU)	D.O. (mg/l)	ORP (mv)	Comments
12/1/2010 15:00	0.250	6.31	0.307	20.86	21.4	1.50	-48.4	
12/2/2010 15:05	0.500	6.32	0.309	21	10.9	1.15	-51.3	
12/3/2010 15:10	0.750	6.33	0.310	21.06	10.0	0.98	-53.5	
12/4/2010 15:15	1.000	6.33	0.310	21.20	9.8	0.85	-56.5	
12/5/2010 15:20	1.250	6.34	0.312	21.18	11.8	0.52	-58.3	
12/5/2010 15:25	1.500	6.34	0.311	21.23	9.11	0.57	-60.1	

Sample Identification: ASH-MW24-12012010

Weather Conditions During Sampling: _____

Comments: _____

Signature: Chris Terrell for Josh Brown + Chris Terrell Date: 12/1/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/1/2010	15:25	3-40 mL VOA; 1 liter Amber	

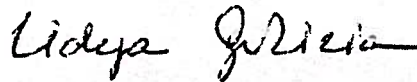
APPENDIX B
LABORATORY ANALYTICAL RESULTS

ANALYTICAL REPORT

Job Number: 680-63585-1

Job Description: Hercules Hattiesburg - GW 4Q10

For:
Ashland Inc.
500 Hercules Road
Wilmington, DE 19894
Attention: Timothy Hassett



Approved for release:
Lidya Gulizia
Project Manager I
12/22/2010 12:07 PM

Lidya Gulizia
Project Manager I
lidya.gulizia@testamericainc.com
12/22/2010
Revision: 1

cc: Caleb Dana
Mr. Charlie Jordan
Mr. Chris Waters

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #s: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

TestAmerica Laboratories, Inc.
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Job Narrative
680-63585-1 / Revised Report (12/22/10)

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: The following samples were analyzed outside the method defined holding time due to laboratory error: ASH-CMO1-11292010 (680-63585-2), ASH-CMO2-11292010 (680-63585-3), ASH-CMOO-11292010 (680-63585-1).

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Comments

The report was revised on December 22, 2010 in order to report volatile results for the following samples: ASH-CMO1-11292010 (680-63585-2), ASH-CMO2-11292010 (680-63585-3), ASH-CMOO-11292010 (680-63585-1). Due to laboratory error, these samples were not logged for volatiles analysis following sample receipt. Following a client inquiry regarding this omission, the samples were logged for analysis outside of holding time on December 21, 2010. The resulting analytical data for these samples was reviewed against the historical data for the samples and results demonstrated good precision to existing historical data.

No additional comments.

METHOD SUMMARY

Client: Ashland Inc.

Job Number: 680-63585-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS) Purge and Trap	TAL SAV TAL SAV	SW846 8260B	SW846 5030B

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Ashland Inc.

Job Number: 680-63585-1

Method	Analyst	Analyst ID
SW846 8260B	Bearden, Robert	RB

SAMPLE SUMMARY

Client: Ashland Inc.

Job Number: 680-63585-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-63585-1	ASH-CMOO-11292010	Water	11/29/2010 1525	12/01/2010 0940
680-63585-2	ASH-CMO1-11292010	Water	11/29/2010 1520	12/01/2010 0940
680-63585-3	ASH-CMO2-11292010	Water	11/29/2010 1505	12/01/2010 0940
680-63585-4	ASH-CMO3-11292010	Water	11/29/2010 1500	12/01/2010 0940
680-63585-5	ASH-CMO4-11292010	Water	11/29/2010 1450	12/01/2010 0940
680-63585-6	ASH-CMO5-11292010	Water	11/29/2010 1445	12/01/2010 0940
680-63585-7	ASH-MWO3-11302010	Water	11/30/2010 1135	12/01/2010 0940
680-63585-8RB	ASH-RSI-11302010	Water	11/30/2010 1125	12/01/2010 0940
680-63585-9	ASH-MW02-11302010	Water	11/30/2010 1222	12/01/2010 0940
680-63585-9MS	ASH-MW02-11302010	Water	11/30/2010 1222	12/01/2010 0940
680-63585-9MSD	ASH-MW02-11302010	Water	11/30/2010 1222	12/01/2010 0940
680-63585-10TB	Trip Blank	Water	11/29/2010 0000	12/01/2010 0940

SAMPLE RESULTS

Analytical Data

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-CMOO-11292010

Lab Sample ID: 680-63585-1

Date Sampled: 11/29/2010 1525

Client Matrix: Water

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-189801	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o1063.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0258		Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0258			

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25	H	25
Acetonitrile	<40	H	40
Acrolein	<20	H	20
Acrylonitrile	<20	H	20
Benzene	<1.0	H	1.0
Dichlorobromomethane	<1.0	H	1.0
Bromoform	<1.0	H	1.0
Bromomethane	<1.0	H	1.0
2-Butanone (MEK)	<10	H	10
Carbon disulfide	<2.0	H	2.0
Carbon tetrachloride	<1.0	H	1.0
Chlorobenzene	<1.0	H	1.0
2-Chloro-1,3-butadiene	<1.0	H	1.0
Chloroethane	<1.0	H	1.0
Chloroform	1.1	H	1.0
Chloromethane	<1.0	H	1.0
3-Chloro-1-propene	<1.0	H	1.0
Chlorodibromomethane	<1.0	H	1.0
1,2-Dibromo-3-Chloropropane	<1.0	H	1.0
Ethylene Dibromide	<1.0	H	1.0
Dibromomethane	<1.0	H	1.0
trans-1,4-Dichloro-2-butene	<2.0	H	2.0
Dichlorodifluoromethane	<1.0	H	1.0
1,1-Dichloroethane	<1.0	H	1.0
1,2-Dichloroethane	<1.0	H	1.0
cis-1,2-Dichloroethene	<1.0	H	1.0
trans-1,2-Dichloroethene	<1.0	H	1.0
1,1-Dichloroethene	<1.0	H	1.0
1,2-Dichloropropane	<1.0	H	1.0
cis-1,3-Dichloropropene	<1.0	H	1.0
trans-1,3-Dichloropropene	<1.0	H	1.0
Ethylbenzene	<1.0	H	1.0
Ethyl methacrylate	<1.0	H	1.0
2-Hexanone	<10	H	10
Iodomethane	<5.0	H	5.0
Isobutyl alcohol	<40	H	40
Methacrylonitrile	<20	H	20
Methylene Chloride	<5.0	H	5.0
Methyl methacrylate	<1.0	H	1.0
4-Methyl-2-pentanone (MIBK)	<10	H	10
Pentachloroethane	<5.0	H	5.0
Propionitrile	<20	H	20
Styrene	<1.0	H	1.0
1,1,1,2-Tetrachloroethane	<1.0	H	1.0
1,1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

Analytical Data

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-CMOO-11292010

Lab Sample ID: 680-63585-1
 Client Matrix: Water

Date Sampled: 11/29/2010 1525
 Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-189801	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o1063.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0258		Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0258			

Analyte	Result (ug/L)	Qualifier	RL
Toluene	<1.0	H	1.0
1,1,1-Trichloroethane	<1.0	H	1.0
1,1,2-Trichloroethane	<1.0	H	1.0
Trichloroethene	<1.0	H	1.0
Trichlorofluoromethane	<1.0	H	1.0
1,2,3-Trichloropropane	<1.0	H	1.0
Vinyl acetate	<2.0	H	2.0
Vinyl chloride	<1.0	H	1.0
Xylenes, Total	<2.0	H	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	91		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8 (Surr)	107		70 - 130

Analytical Data

Job Number: 680-63585-1

Client: Ashland Inc.

Client Sample ID: ASH-CMO1-11292010

Lab Sample ID: 680-63585-2

Client Matrix: Water

Date Sampled: 11/29/2010 1520

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
 Preparation: 5030B
 Dilution: 1.0
 Date Analyzed: 12/22/2010 0319
 Date Prepared: 12/22/2010 0319

Analysis Batch: 680-189801

Instrument ID: MSO
 Lab File ID: o1064.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25	H	25
Acetonitrile	<40	H	40
Acrolein	<20	H	20
Acrylonitrile	<20	H	20
Benzene	<1.0	H	1.0
Dichlorobromomethane	<1.0	H	1.0
Bromoform	<1.0	H	1.0
Bromomethane	<1.0	H	10
2-Butanone (MEK)	<10	H	2.0
Carbon disulfide	<2.0	H	1.0
Carbon tetrachloride	<1.0	H	1.0
Chlorobenzene	<1.0	H	1.0
2-Chloro-1,3-butadiene	<1.0	H	1.0
Chloroethane	<1.0	H	1.0
Chloroform	<1.0	H	1.0
Chloromethane	<1.0	H	1.0
3-Chloro-1-propene	<1.0	H	1.0
Chlorodibromomethane	<1.0	H	1.0
1,2-Dibromo-3-Chloropropane	<1.0	H	1.0
Ethylene Dibromide	<1.0	H	1.0
Dibromomethane	<1.0	H	2.0
trans-1,4-Dichloro-2-butene	<2.0	H	1.0
Dichlorodifluoromethane	<1.0	H	1.0
1,1-Dichloroethane	<1.0	H	1.0
1,2-Dichloroethane	<1.0	H	1.0
cis-1,2-Dichloroethene	<1.0	H	1.0
trans-1,2-Dichloroethene	<1.0	H	1.0
1,1-Dichloroethene	<1.0	H	1.0
1,2-Dichloropropane	<1.0	H	1.0
cis-1,3-Dichloropropene	<1.0	H	1.0
trans-1,3-Dichloropropene	<1.0	H	1.0
Ethylbenzene	<1.0	H	1.0
Ethyl methacrylate	<1.0	H	10
2-Hexanone	<10	H	5.0
Iodomethane	<5.0	H	40
Isobutyl alcohol	<40	H	20
Methacrylonitrile	<20	H	5.0
Methylene Chloride	<5.0	H	1.0
Methyl methacrylate	<1.0	H	10
4-Methyl-2-pentanone (MIBK)	<10	H	5.0
Pentachloroethane	<5.0	H	20
Propionitrile	<20	H	1.0
Styrene	<1.0	H	1.0
1,1,1,2-Tetrachloroethane	<1.0	H	1.0
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

Analytical Data

Job Number: 680-63585-1

Client: Ashland Inc.

Client Sample ID: ASH-CMO1-11292010

Lab Sample ID: 680-63585-2

Client Matrix: Water

Date Sampled: 11/29/2010 1520

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-189801	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o1064.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0319		Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0319			

Analyte	Result (ug/L)	Qualifier	RL
Toluene	<1.0	H	1.0
1,1,1-Trichloroethane	<1.0	H	1.0
1,1,2-Trichloroethane	<1.0	H	1.0
Trichloroethene	<1.0	H	1.0
Trichlorofluoromethane	<1.0	H	1.0
1,2,3-Trichloropropane	<1.0	H	1.0
Vinyl acetate	<2.0	H	2.0
Vinyl chloride	<1.0	H	1.0
Xylenes, Total	<2.0	H	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	91		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Analytical Data

Job Number: 680-63585-1

Client: Ashland Inc.

Client Sample ID: ASH-CMO2-11292010

Lab Sample ID: 680-63585-3

Client Matrix: Water

Date Sampled: 11/29/2010 1505

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 12/22/2010 0340
Date Prepared: 12/22/2010 0340

Analysis Batch: 680-189801

Instrument ID: MSO
Lab File ID: o1065.d
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25	H	25
Acetonitrile	<40	H	40
Acrolein	<20	H	20
Acrylonitrile	<20	H	20
Benzene	<1.0	H	1.0
Dichlorobromomethane	<1.0	H	1.0
Bromoform	<1.0	H	1.0
Bromomethane	<1.0	H	1.0
2-Butanone (MEK)	<10	H	10
Carbon disulfide	<2.0	H	2.0
Carbon tetrachloride	<1.0	H	1.0
Chlorobenzene	<1.0	H	1.0
2-Chloro-1,3-butadiene	<1.0	H	1.0
Chloroethane	<1.0	H	1.0
Chloroform	<1.0	H	1.0
Chloromethane	<1.0	H	1.0
3-Chloro-1-propene	<1.0	H	1.0
Chlorodibromomethane	<1.0	H	1.0
1,2-Dibromo-3-Chloropropane	<1.0	H	1.0
Ethylene Dibromide	<1.0	H	1.0
Dibromomethane	<1.0	H	1.0
trans-1,4-Dichloro-2-butene	<2.0	H	2.0
Dichlorodifluoromethane	<1.0	H	1.0
1,1-Dichloroethane	<1.0	H	1.0
1,2-Dichloroethane	<1.0	H	1.0
cis-1,2-Dichloroethene	<1.0	H	1.0
trans-1,2-Dichloroethene	<1.0	H	1.0
1,1-Dichloroethene	<1.0	H	1.0
1,2-Dichloropropane	<1.0	H	1.0
cis-1,3-Dichloropropene	<1.0	H	1.0
trans-1,3-Dichloropropene	<1.0	H	1.0
Ethylbenzene	<1.0	H	1.0
Ethyl methacrylate	<1.0	H	1.0
2-Hexanone	<10	H	10
Iodomethane	<5.0	H	5.0
Isobutyl alcohol	<40	H	40
Methacrylonitrile	<20	H	20
Methylene Chloride	<5.0	H	5.0
Methyl methacrylate	<1.0	H	1.0
4-Methyl-2-pentanone (MIBK)	<10	H	10
Pentachloroethane	<5.0	H	5.0
Propionitrile	<20	H	20
Styrene	<1.0	H	1.0
1,1,1,2-Tetrachloroethane	<1.0	H	1.0
1,1,1,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

Analytical Data

Job Number: 680-63585-1

Client: Ashland Inc.

Client Sample ID: ASH-CMO2-11292010

Lab Sample ID: 680-63585-3

Client Matrix: Water

Date Sampled: 11/29/2010 1505

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-189801	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o1065.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0340		Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0340			

Analyte	Result (ug/L)	Qualifier	RL
Toluene	<1.0	H	1.0
1,1,1-Trichloroethane	<1.0	H	1.0
1,1,2-Trichloroethane	<1.0	H	1.0
Trichloroethene	<1.0	H	1.0
Trichlorofluoromethane	<1.0	H	1.0
1,2,3-Trichloropropane	<1.0	H	1.0
Vinyl acetate	<2.0	H	2.0
Vinyl chloride	<1.0	H	1.0
Xylenes, Total	<2.0	H	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	92		70 - 130
Dibromofluoromethane	96		70 - 130
Toluene-d8 (Surr)	109		70 - 130

Analytical Data

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: **ASH-CMO3-11292010**

Lab Sample ID: 680-63585-4

Date Sampled: 11/29/2010 1500

Client Matrix: Water

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-187749	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0381.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1832		Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1832			

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		10
Carbon disulfide	<2.0		2.0
Carbon tetrachloride	<1.0		1.0
Chlorobenzene	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	<1.0		1.0
Chloromethane	<1.0		1.0
3-Chloro-1-propene	<1.0		1.0
Chlorodibromomethane	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
Dibromomethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
trans-1,2-Dichloroethene	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethyl methacrylate	<1.0		1.0
2-Hexanone	<10		10
Iodomethane	<5.0		5.0
Isobutyl alcohol	<40		40
Methacrylonitrile	<20		20
Methylene Chloride	<5.0		5.0
Methyl methacrylate	<1.0		1.0
4-Methyl-2-pentanone (MIBK)	<10		10
Pentachloroethane	<5.0		5.0
Propionitrile	<20		20
Styrene	<1.0		1.0
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0

Analytical Data

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: **ASH-CMO3-11292010**

Lab Sample ID: 680-63585-4

Date Sampled: 11/29/2010 1500

Client Matrix: Water

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
 Preparation: 5030B
 Dilution: 1.0
 Date Analyzed: 12/02/2010 1832
 Date Prepared: 12/02/2010 1832

Analysis Batch: 680-187749

Instrument ID: MSO
 Lab File ID: o0381.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Toluene	<1.0		1.0
1,1,1-Trichloroethane	<1.0		1.0
1,1,2-Trichloroethane	<1.0		1.0
Trichloroethene	<1.0		1.0
Trichlorofluoromethane	<1.0		1.0
1,2,3-Trichloropropane	<1.0		1.0
Vinyl acetate	<2.0		2.0
Vinyl chloride	<1.0		1.0
Xylenes, Total	<2.0		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	97		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8 (Surr)	107		70 - 130

Analytical Data

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-CMO4-11292010

Lab Sample ID: 680-63585-5

Date Sampled: 11/29/2010 1450

Client Matrix: Water

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 680-187749	Instrument ID:	MSO
Preparation:	5030B		Lab File ID:	o0383.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1900		Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1900			

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		10
Carbon disulfide	<2.0		2.0
Carbon tetrachloride	<1.0		1.0
Chlorobenzene	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	<1.0		1.0
Chloromethane	<1.0		1.0
3-Chloro-1-propene	<1.0		1.0
Chlorodibromomethane	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
Dibromomethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
trans-1,2-Dichloroethene	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethyl methacrylate	<1.0		1.0
2-Hexanone	<10		10
Iodomethane	<5.0		5.0
Isobutyl alcohol	<40		40
Methacrylonitrile	<20		20
Methylene Chloride	<5.0		5.0
Methyl methacrylate	<1.0		1.0
4-Methyl-2-pentanone (MIBK)	<10		10
Pentachloroethane	<5.0		5.0
Propionitrile	<20		20
Styrene	<1.0		1.0
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0

Analytical Data

Job Number: 680-63585-1

Client: Ashland Inc.

Client Sample ID: ASH-CMO4-11292010

Lab Sample ID: 680-63585-5

Client Matrix: Water

Date Sampled: 11/29/2010 1450

Date Received: 12/01/2010 0940

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B
 Preparation: 5030B
 Dilution: 1.0
 Date Analyzed: 12/02/2010 1900
 Date Prepared: 12/02/2010 1900

Analysis Batch: 680-187749

Instrument ID: MSO
 Lab File ID: o0383.d
 Initial Weight/Volume: 5 mL
 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL
Toluene	<1.0		1.0
1,1,1-Trichloroethane	<1.0		1.0
1,1,2-Trichloroethane	<1.0		1.0
Trichloroethene	<1.0		1.0
Trichlorofluoromethane	<1.0		1.0
1,2,3-Trichloropropane	<1.0		1.0
Vinyl acetate	<2.0		2.0
Vinyl chloride	<1.0		1.0
Xylenes, Total	<2.0		2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	95		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8 (Surr)	107		70 - 130