

JAN'S  
**COPY**

**2<sup>nd</sup> Semi-Annual  
Monitoring Report 2010**

**Hercules Incorporated  
Hattiesburg, Mississippi**

Prepared for:  
**Hercules Incorporated**

**February 2011**

**Eco•Systems, Inc.**  
Consultants, Engineers, and Scientists



**Eco•Systems, Inc.**  
Consultants, Engineers, and Scientists



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

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

**RECEIVED**

MAR - 2 2011

*Dept of Environmental Quality*  
*Office of Pollution Control*

Dear Mr. McKercher:

Eco-Systems, Inc. (Eco-Systems) is pleased to submit the enclosed two copies of the 2<sup>nd</sup> 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 handwritten signature in black ink that reads "A. Chris Waters".

A. Chris Waters, RPG  
Senior Scientist

cc: Timothy Hassett – Hercules Inc. w/ enclosure

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Hercules Incorporated  
Hattiesburg, Mississippi*

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**Hattiesburg, Mississippi**

## **1.0 INTRODUCTION**

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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 2<sup>nd</sup> 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**.

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## **2.0 FIELD ACTIVITIES**

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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.

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## **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).

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**Hattiesburg, Mississippi**

## **3.0 RESULTS**

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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 30<sup>th</sup>, December 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>, 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. ← Conclusion

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.

#### **4.0 FINDINGS AND CONCLUSIONS**

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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

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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**.

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**Hattiesburg, Mississippi**

#### **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

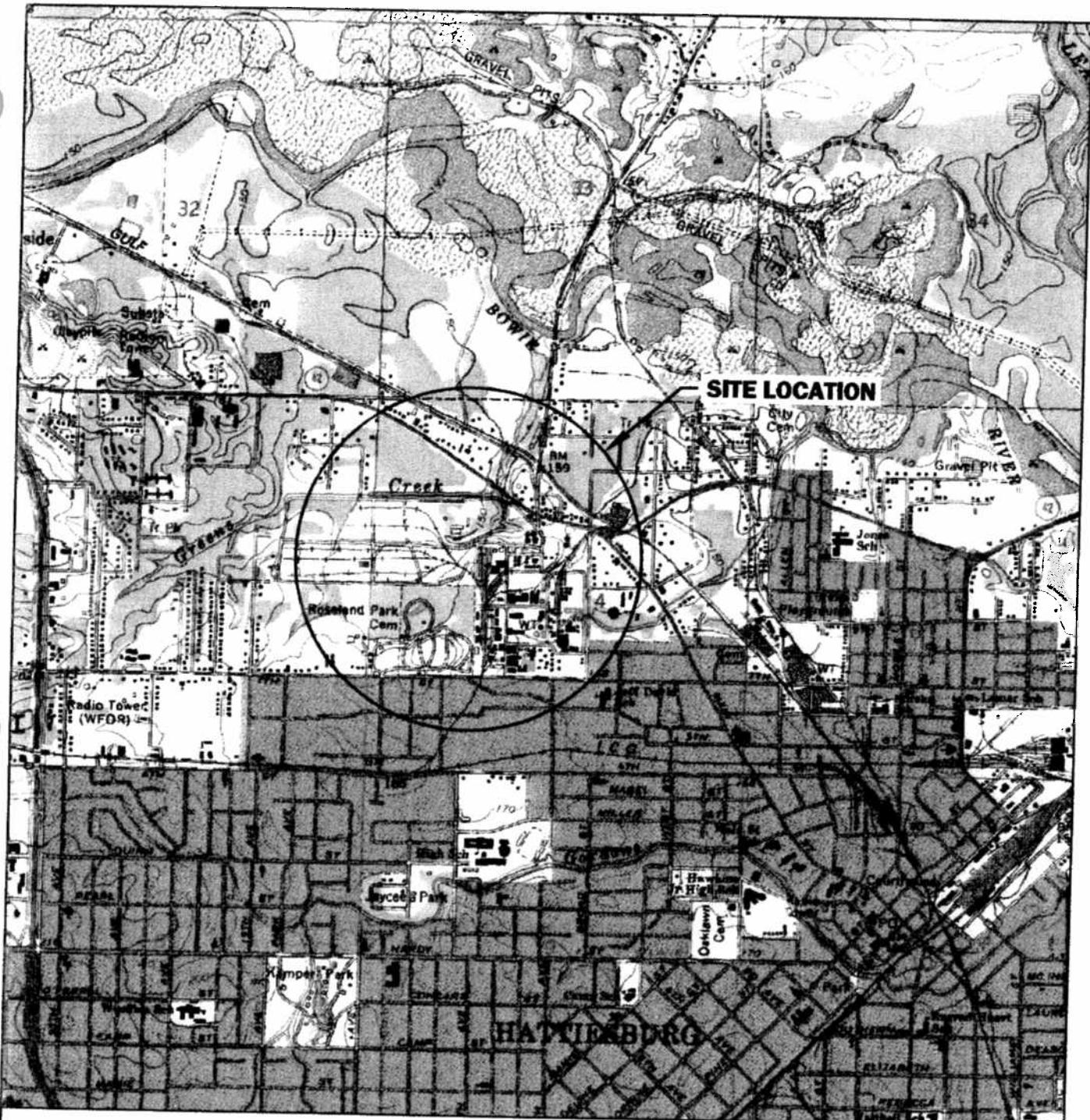
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Hattiesburg, Mississippi*

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**



QUADRANGLE LOCATION

SOURCE: DeLORME 3D TopoQuads - HATTIESBURG, MISSISSIPPI

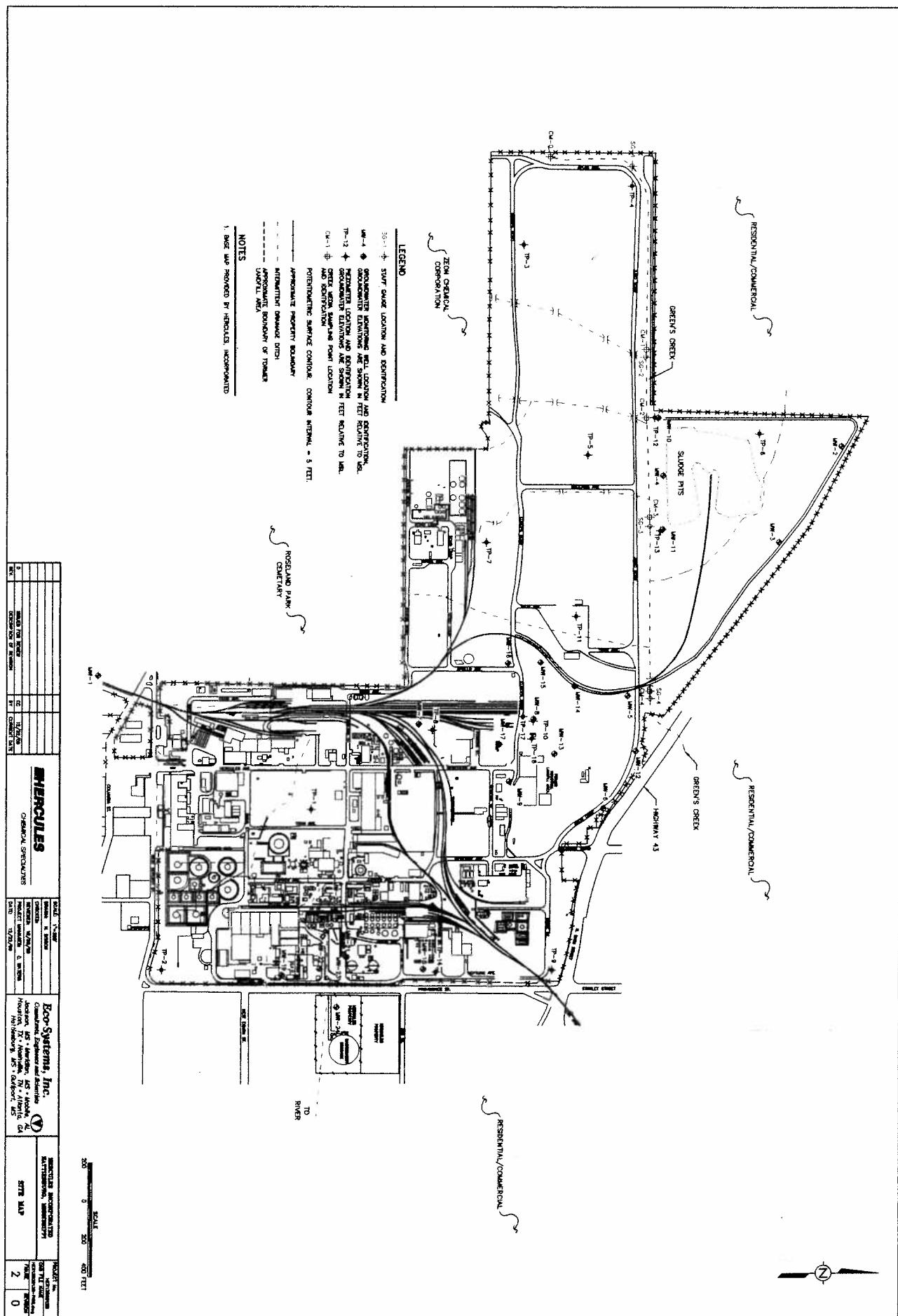
**HERCULES INCORPORATED  
HATTIESBURG, MISSISSIPPI**

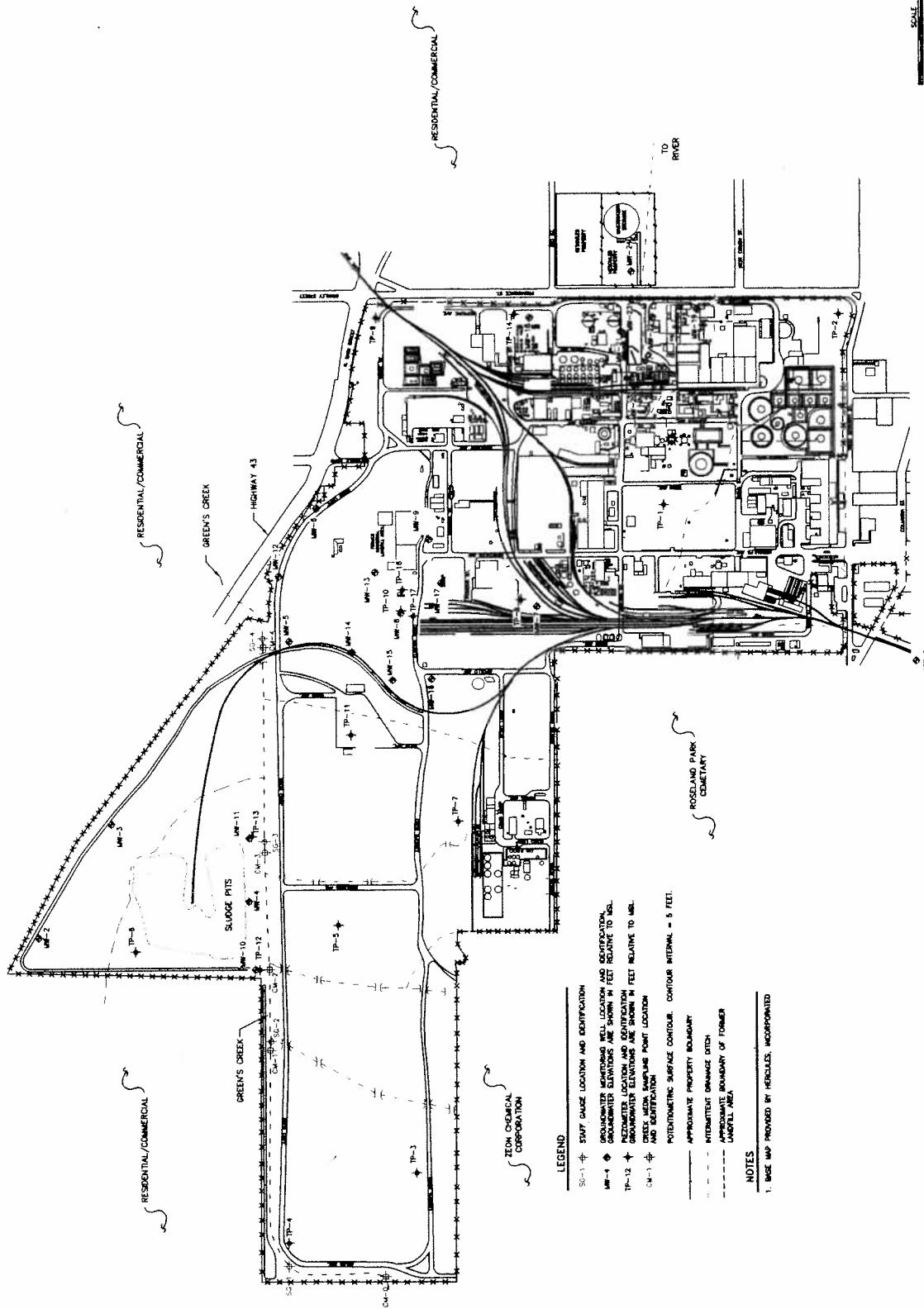
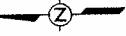
**Eco-Systems, Inc.**  
*Consultants, Engineers and Scientists*

SCALE: 1"=2000'	DRAWN BY: MTW	DATE: 11/26/07
	CHKD. BY:	DATE:
PROJECT NO. HER25080	CAD FILE HER25080-TOPO.dwg	
	SITE LOCATION MAP	

FIGURE  
1







#### LEGEND

SC-1 - ♦ STUD GAUGE LOCATION AND IDENTIFICATION  
ME-4 - ♦ GROUNDMETER METERING WELL LOCATION AND IDENTIFICATION  
TP-12 - ♦ PEDESTRIAN LOCATION AND IDENTIFICATION  
C-1 - ♦ CREEK, MEAN, SAMPLING POINT LOCATION  
AND IDENTIFICATION

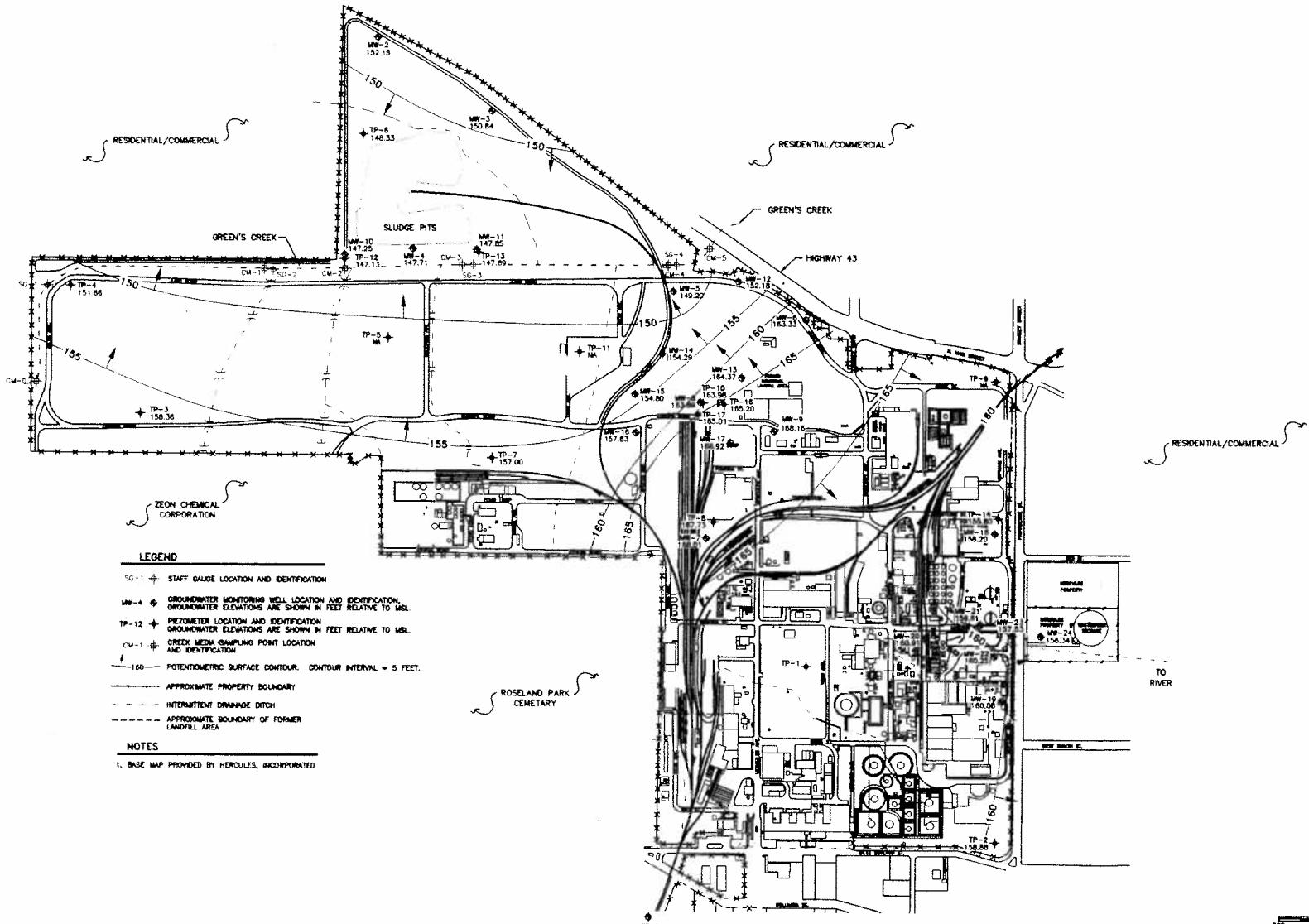
POTENOMETER SURFACE CONTOUR. CONTOUR INTERVAL = 5 FEET.

APPROPRIATE PROPERTY BOUNDARY  
INTRUSION DRAINS DITCH  
APPROPRIATE BOUNDARY OF FORMER  
CANAL PATH

#### NOTES

1. BASE MAP PROVIDED BY HERCULES, INCORPORATED

PROJECT No.		PROJECT NUMBER	
Eco-Systems, Inc.		INCORPORATED Chemical, Engineering and Construction Services, Inc.	
		HEADQUARTERS ADDRESS: 10700 W. 107TH STREET, SUITE 100, JACKSONVILLE, FL 32216	
NAME	HERCULES	PRODUCT NUMBER	STATE MAP
ADDRESS	CHAMBERSBURG, PA	CITY STATE	FLA
TELEPHONE	724-238-1000	TELEPHONE	305-645-1000
FAX	724-238-1000	FAX	305-645-1000
EMAIL	HERCULES@PA.HOTMAIL.COM	EMAIL	HERCULES@FL.HOTMAIL.COM
WEBSITE	WWW.HERCULES.COM	WEBSITE	WWW.HERCULES.COM
DATA	DATA	DATA	DATA



	WIND FARM REVIEW	02	1/14/11
REV.	DESCRIPTION OF REVIEW	BY	COMMITTEE

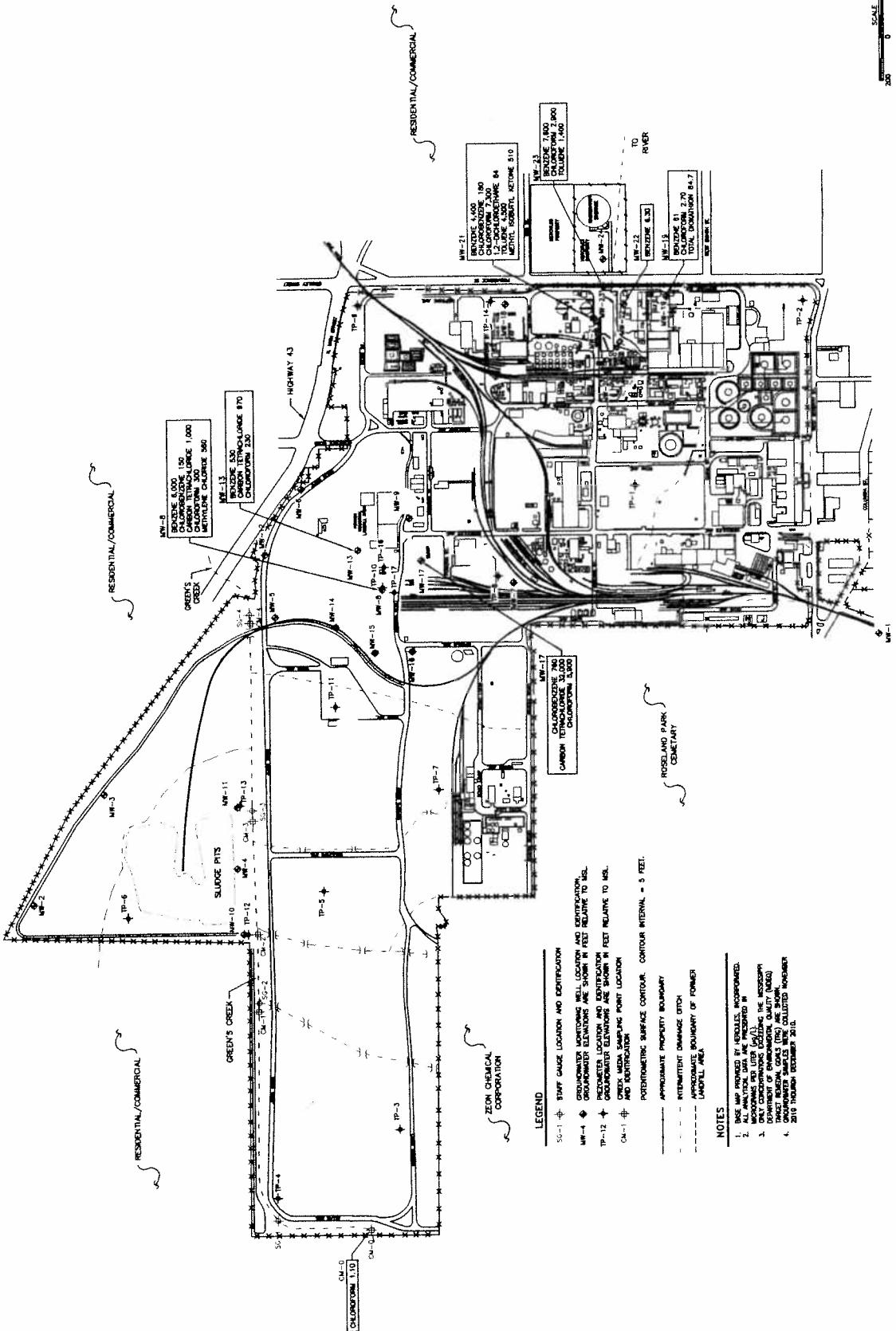
**HERCULES**  
CHEMICAL SPECIALISTS

SCALE: 1" = 300'  
DRAWN: N. SWEDON  
CHECKED:  
REVIEWED:  
PROJECT MANAGER: C. WATERS  
D.D.W. 1-D-01

**Eco-Systems, Inc.**   
*Consultants, Engineers and Scientists*

HERCULES INCORPORATED  
HARRINGTON, MASSACHUSETTS  
**POTENTIOMETRIC  
SURFACE MAP**  
DECEMBER, 2010

D E P T	PROJECT NO. HED250000
	CAD FILE NAME HED25000-Project1.dwg
NAME	REVISED
3	0



Eco-Systems, Inc.		Hercules Incorporated	
Chemical Engineers and Scientists		Chemical Specialists	
DR. K. BROWN	DR. K. BROWN	TO BE DETERMINED	TO BE DETERMINED
STAFF	STAFF	TO BE DETERMINED	TO BE DETERMINED
DATE	DATE	EXPIRATION DATE	EXPIRATION DATE
0	0	0	0

**TABLES**

**TABLE 1**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**

*November 2010  
 Hercules, Incorporated  
 Hattiesburg, Mississippi*

WELL NO.	TOC ELEVATION (ft.) <sup>1</sup>	WATER DEPTH (ft.) <sup>2</sup>	GROUNDWATER ELEVATION (ft.)
<b>PERMANENT MONITOR WELLS</b>			
MW-1	174.12	NA <sup>3</sup>	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
<b>PIEZOMETERS</b>			
TP-1	172.18	NA <sup>3</sup>	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 <sup>3</sup>	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 <sup>3</sup>	NA
TP-10	179.69	15.71	163.98
TP-11	162.26	NA <sup>3</sup>	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.

**TABLE 2**  
**SUMMARY OF VOC ANALYTICAL RESULTS**

Ferous Incorporated  
 Hattiesburg, Mississippi

| TRD | Date | C1 | | C2 | | C3 | | C4 | | C5 | | C6 | | C7 | | C8 | | C9 | | C10 | | C11 | | C12 | | C13 | | C14 | | C15 | | C16 | | C17 | | C18 | | C19 | | C20 | | C21 | | C22 | | C23 | | C24 | | C25 | | C26 | | C27 | | C28 | | C29 | | C30 | | C31 | | C32 | | C33 | | C34 | | C35 | | C36 | | C37 | | C38 | | C39 | | C40 | | C41 | | C42 | | C43 | | C44 | | C45 | | C46 | | C47 | | C48 | | C49 | | C50 | | C51 | | C52 | | C53 | | C54 | | C55 | | C56 | | C57 | | C58 | | C59 | | C60 | | C61 | | C62 | | C63 | | C64 | | C65 | | C66 | | C67 | | C68 | | C69 | | C70 | | C71 | | C72 | | C73 | | C74 | | C75 | | C76 | | C77 | | C78 | | C79 | | C80 | | C81 | | C82 | | C83 | | C84 | | C85 | | C86 | | C87 | | C88 | | C89 | | C90 | | C91 | | C92 | | C93 | | C94 | | C95 | | C96 | | C97 | | C98 | | C99 | | C100 | | C101 | | C102 | | C103 | | C104 | | C105 | | C106 | | C107 | | C108 | | C109 | | C110 | | C111 | | C112 | | C113 | | C114 | | C115 | | C116 | | C117 | | C118 | | C119 | | C120 | | C121 | | C122 | | C123 | | C124 | | C125 | | C126 | | C127 | | C128 | | C129 | | C130 | | C131 | | C132 | | C133 | | C134 | | C135 | | C136 | | C137 | | C138 | | C139 | | C140 | | C141 | | C142 | | C143 | | C144 | | C145 | | C146 | | C147 | | C148 | | C149 | | C150 | | C151 | | C152 | | C153 | | C154 | | C155 | | C156 | | C157 | | C158 | | C159 | | C160 | | C161 | | C162 | | C163 | | C164 | | C165 | | C166 | | C167 | | C168 | | C169 | | C170 | | C171 | | C172 | | C173 | | C174 | | C175 | | C176 | | C177 | | C178 | | C179 | | C180 | | C181 | | C182 | | C183 | | C184 | | C185 | | C186 | | C187 | | C188 | | C189 | | C190 | | C191 | | C192 | | C193 | | C194 | | C195 | | C196 | | C197 | | C198 | | C199 | | C200 | | C201 | | C202 | | C203 | | C204 | | C205 | | C206 | | C207 | | C208 | | C209 | | C210 | | C211 | | C212 | | C213 | | C214 | | C215 | | C216 | | C217 | | C218 | | C219 | | C220 | | C221 | | C222 | | C223 | | C224 | | C225 | | C226 | | C227 | | C228 | | C229 | | C230 | | C231 | | C232 | | C233 | | C234 | | C235 | | C236 | | C237 | | C238 | | C239 | | C240 | | C241 | | C242 | | C243 | | C244 | | C245 | | C246 | | C247 | | C248 | | C249 | | C250 | | C251 | | C252 | | C253 | | C254 | | C255 | | C256 | | C257 | | C258 | | C259 | | C260 | | C261 | | C262 | | C263 | | C264 | | C265 | | C266 | | C267 | | C268 | | C269 | | C270 | | C271 | | C272 | | C273 | | C274 | | C275 | | C276 | | C277 | | C278 | | C279 | | C280 | | C281 | | C282 | | C283 | | C284 | | C285 | | C286 | | C287 | | C288 | | C289 | | C290 | | C291 | | C292 | | C293 | | C294 | | C295 | | C296 | | C297 | | C298 | | C299 | | C300 | | C301 | | C302 | | C303 | | C304 | | C305 | | C306 | | C307 | | C308 | | C309 | | C310 | | C311 | | C312 | | C313 | | C314 | | C315 | | C316 | | C317 | | C318 | | C319 | | C320 | | C321 | | C322 | | C323 | | C324 | | C325 | | C326 | | C327 | | C328 | | C329 | | C330 | | C331 | | C332 | | C333 | | C334 | | C335 | | C336 | | C337 | | C338 | | C339 | | C340 | | C341 | | C342 | | C343 | | C344 | | C345 | | C346 | | C347 | | C348 | | C349 | | C350 | | C351 | | C352 | | C353 | | C354 | | C355 | | C356 | | C357 | | C358 | | C359 | | C360 | | C361 | | C362 | | C363 | | C364 | | C365 | | C366 | | C367 | | C368 | | C369 | | C370 | | C371 | | C372 | | C373 | | C374 | | C375 | | C376 | | C377 | | C378 | | C379 | | C380 | | C381 | | C382 | | C383 | | C384 | | C385 | | C386 | | C387 | | C388 | | C389 | | C390 | | C391 | | C392 | | C393 | | C394 | | C395 | | C396 | | C397 | | C398 | | C399 | | C400 | | C401 | | C402 | | C403 | | C404 | | C405 | | C406 | | C407 | | C408 | | C409 | | C410 | | C411 | | C412 | | C413 | | C414 | | C415 | | C416 | | C417 | | C418 | | C419 | | C420 | | C421 | | C422 | | C423 | | C424 | | C425 | | C426 | | C427 | | C428 | | C429 | | C430 | | C431 | | C432 | | C433 | | C434 | | C435 | | C436 | | C437 | | C438 | | C439 | | C440 | | C441 | | C442 | | C443 | | C444 | | C445 | | C446 | | C447 | | C448 | | C449 | | C450 | | C451 | | C452 | | C453 | | C454 | | C455 | | 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C567 | | C568 | | C569 | | C570 | | C571 | | C572 | | C573 | | C574 | | C575 | | C576 | | C577 | | C578 | | C579 | | C580 | | C581 | | C582 | | C583 | | C584 | | C585 | | C586 | | C587 | | C588 | | C589 | | C590 | | C591 | | C592 | | C593 | | C594 | | C595 | | C596 | | C597 | | C598 | | C599 | | C600 | | C601 | | C602 | | C603 | | C604 | | C605 | | C606 | | C607 | | C608 | | C609 | | C610 | | C611 | | C612 | | C613 | | C614 | | C615 | | C616 | | C617 | | C618 | | C619 | | C620 | | C621 | | C622 | | C623 | | C624 | | C625 | | C626 | | C627 | | C628 | | C629 | | C630 | | C631 | | C632 | | C633 | | C634 | | C635 | | C636 | | C637 | | C638 | | C639 | | C640 | | C641 | | C642 | | C643 | | C644 | | C645 | | C646 | | C647 | | C648 | | C649 | | C650 | | C651 | | C652 | | C653 | | C654 | | C655 | | C656 | | C657 | | C658 | | C659 | | C660 | | C661 | | C662 | | C663 | | C664 | | C665 | | C666 | | C667 | | C668 | | C669 | | C670 | | C671 | | C672 | | C673 | | C674 | | C675 | | C676 | | C677 | | C678 | | C679 | | C680 | | C681 | | C682 | | C683 | | C684 | | C685 | | C686 | | C687 | | C688 | | C689 | | C690 | | C691 | | C692 | | C693 | | C694 | | C695 | | C696 | | C697 | | C698 | | C699 | | C700 | | C701 | | C702 | | C703 | | C704 | | C705 | | C706 | | C707 | | C708 | | C709 | | C710 | | C711 | | C712 | | C713 | | C714 | | C715 | | C716 | | C717 | | C718 | | C719 | | C720 | | C721 | | C722 | | C723 | | C724 | | C725 | | C726 | | C727 | | C728 | | C729 | | C730 | | C731 | | C732 | | C733 | | C734 | | C735 | | C736 | | C737 | | C738 | | C739 | | C740 | | C741 | | C742 | | C743 | | C744 | | C745 | | C746 | | C747 | | C748 | | C749 | | C750 | | C751 | | C752 | | C753 | | C754 | | C755 | | C756 | | C757 | | C758 | | C759 | | C760 | | C761 | | C762 | | C763 | | C764 | | C765 | | C766 | | C767 | | C768 | | C769 | | C770 | | C771 | | C772 | | C773 | | C774 | | C775 | | C776 | | C777 | | C778 | | C779 | | C780 | | C781 | | C782 | | C783 | | C784 | | C785 | | C786 | | C787 | | C788 | | C789 | | C790 | | C791 | | C792 | | C793 | | C794 | | C795 | | C796 | | C797 | | C798 | | C799 | | C800 | | C801 | | C802 | | C803 | | C804 | | C805 | | C806 | | C807 | | C808 | | C809 | | C810 | | C811 | | C812 | | C813 | | C814 | | C815 | | C816 | | C817 | | C818 | | C819 | | C820 | | C821 | | C822 | | C823 | | C824 | | C825 | | C826 | | C827 | | C828 | | C829 | | C830 | | C831 | | C832 | | C833 | | C834 | | C835 | | C836 | | C837 | | C838 | | C839 | | C840 | | C841 | | C842 | | C843 | | C844 | | C845 | | C846 | | C847 | | C848 | | C849 | | C850 | | C851 | | C852 | | C853 | | C854 | | C855 | | C856 | | C857 | | C858 | | C859 | | C860 | | C861 | | C862 | | C863 | | C864 | | C865 | | C866 | | C867 | | C868 | | C869 | | C870 | | C871 | | C872 | | C873 | | C874 | | C875 | | C876 | | C877 | | C878 | | C879 | | C880 | | C881 | | C882 | | C883 | | C884 | | C885 | | C886 | | C887 | | C888 | | C889 | | C890 | | C891 | | C892 | | C893 | | C894 | | C895 | | C896 | | C897 | | C898 | | C899 | | C900 | | C901 | | C902 | | C903 | | C904 | | C905 | | C906 | | C907 | | C908 | | C909 | | C910 | | C911 | | C912 | | C913 | | C914 | | C915 | | C916 | | C917 | | C918 | | C919 | | C920 | | C921 | | C922 | | C923 | | C924 | | C925 | | C926 | | C927 | | C928 | | C929 | | C930 | | C931 | | C932 | | C933 | | C934 | | C935 | | C936 | | C937 | | C938 | | C939 | | C940 | | C941 | | C942 | | C943 | | C944 | | C945 | |
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**TABLE 2**  
**SUMMARY OF VOC ANALYTICAL RESULTS**  
**December 2010**  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*

Notes

NA = no specific performance of the compound

*\* indicates that the concentration of the antigen is less than the value shown.*

Recently it has been indicated that the concentration exceeds the TRG.

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B = component detected in the transcribed method block.

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7-6. Indicate that although the concept was not detected above the association

**SUMMARY OF VOC ANALYTICAL RESULTS**

Hercules Incorporated  
Hattiesburg, Mississippi

**Note:**  
 N/A = no analytical methods for the compound  
 <= indicates the concentration of the analysis is less than the value shown.  
 TIC = Total Ion Chromatogram  
 TIC-TOC = Total Ion Chromatogram plus the Total Organic Carbon (TOC) method (MEPA, March 2017).  
 No = not detected/no detection limit available.  
 ND = no detectable signal available.  
 \* = estimated value.

TABLE 2  
SUMMARY OF VOC ANALYTICAL RESULTS  
December 2010  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*

		Concentration in mg/m<sup>3</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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8		1019		1020		1021		1022		1023		1024		1025		1026		1027		1028		102	

TABLE 2  
SUMMARY OF VOC ANALYTICAL RESULTS

December 2010  
*Hercules Incorporated*  
Hattiesburg, Mississippi

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Notes

NA = no analysis performed for this compound  
← indicates that the concentration of the analyte is lower than the value shown

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

NE = TRG not yet established for the compound  
ND = not detected / no detection limit available

B = component of directed in the measured method block.

...not seen for others; the general view is not detected above the horizon.

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**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
<b>MDEQ TRG</b>		<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>54.8</b>

**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 Go:

**TABLE 4**  
**SUMMARY OF QA/QC SAMPLE ANALYTICAL RESULTS**

Location	Concentrations in $\mu\text{g/L}$				
	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	<b>530</b>	<b>970</b>	25	< 10	<b>230</b>
MW-13 FD02	<b>530</b>	<b>970</b>	28	< 10	<b>260</b>
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	<i>Concentrations in µg/L</i>		
	Dioxenethion	<i>cis</i> -Dioxathion	<i>trans</i> -Dioxathion
MW-4	<b>22.2</b>	< 0.400	< 0.400
MW-4 FD01	<b>15.5</b>	< 0.400	< 0.400
RPD	35.5%	0.000%	0.000%
MW-13	<b>6.6</b>	<b>1.5</b>	<b>0.60</b>
MW-13 FD02	<b>6.3</b>	< 0.400	< 0.400
RPD	4.65%	95.0%	40.0%
MW-18	< 0.400	<b>2.6</b>	<b>5.6</b>
MW-18 FD03	<b>1.9</b>	< 0.400	<b>6.4</b>
RPD	130%	147%	13.3%
RS01	<b>0.55</b>	< 0.400	< 0.400
RS02	< 0.400	< 0.400	< 0.400
RS03	<b>1.3</b>	< 0.400	<b>0.89</b>
RS04	<b>2.9</b>	< 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-02  
**Site Location:** Hattiesburg, MS

Start Date: 11/30/2010 Finish Date: 11/30/2010  
Sample Technician: Josh Brown, Chris Terrell  
Purge/Sample Method: LF/LS  
Well Diameter (inches): 2"  
Total Depth of Well (ft) BTOC: 20.50  
Approximate Depth of Water Column (ft)  
( $h = TD$  of well - water level [TOC]): 12.61  
Calculated Well Volume ( $V= \pi h D^2 / 4$ )  
( $V = \text{vol in gal}$ ;  $D = \text{well diam. in ft}$ ): 2.06

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:30	7.89
11/30/2010	12:10	8.10
11/30/2010	12:15	8.05

**WELL DEVELOPMENT/PURGING DATA**

**Sample Identification:** ASH-MW2-11302010, ASH-MW2-11302010 (MS),  
ASH-MW2-11302010 (MSD)

#### **Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 11/30/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
11/30/2010	12:22	3-40 mL VOA; 1 liter Amber	
11/30/2010	12:22	3-40 mL VOA; 1 liter Amber	
11/30/2010	12:22	3-40 mL VOA; 1 liter Amber	



*Environmental Engineers and Scientists*

# **Groundwater Sample Collection Log**

Page 1 of 1

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

**Boring ID:** MW-03  
**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) BTOP: 18.00  
Approximate Depth of Water Column (ft)  
(h = TD of well - water level [TOC]): 8.81  
Calculated Well Volume (V=6hd<sup>2</sup>)  
(V = vol in gal; D = well diam. in ft): 1.44

Water Level Measurements		
Date	Time	Water Level (BTOP)
11/29/2010	15:27	9.19
11/30/2010	11:24	9.45
11/30/2010	11:29	9.35

**WELL DEVELOPMENT/PURGING DATA**

Sample Identification: ASH-MW3-11302010, ASH-RS1-11302010

#### **Weather Conditions During Sampling:**

**Comments:**

Signature: Chris Litchfield Date: 11/30/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
11/30/2010	11:35	3-40 mL VOA; 1 liter Amber	
11/30/2010	11:25	3-40 mL VOA; 1 liter Amber	



**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: Josh Brown, Chris Terrell  
Purge/Sample Method: LFLS  
Well Diameter (inches): 2"  
Total Depth of Well (ft) BTOC: 18.74  
Approximate Depth of Water Column (ft)  
( $b = TD$  of well - water level [TOC]): 6.70  
Calculated Well Volume ( $V = \pi b^2 D$ )  
( $V = vol$  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**

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

#### **Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 12/1/2010

Signature: Jeanne M. Biddle Date: 12/1/2010

Josh Brown + Ch. Tavel

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:  
Site Location:

MW-06  
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: 23.25  
Approximate Depth of Water Column (ft)  
(ft = TD of well - water level [TOC]): 12.53  
Calculated Well Volume (V=6hd<sup>2</sup>)  
(V = vol in gal; D = well diam. in ft): 2.04

Water Level Measurements		
Date	Time	Water Level (BTOC)
11/29/2010	15:54	10.72
12/1/2010	13:45	11.38
12/1/2010	13:50	11.30

**WELL DEVELOPMENT/PURGING DATA**

Sample Identification: ASH-MW6-12012010

**Weather Conditions During Sampling:**

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Comments

Signature:  Date: 12/1/2010

## GROUNDWATER SAMPLE CONTAINERS

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/1/2010	14:00	3-40 mL VOA; 1 liter Amber	







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## **Groundwater Sample Collection Log**

Page 1 of 1

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

**Boring ID:** MW-09  
**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:** 20.00  
**Approximate Depth of Water Column (ft)**  
**(h = TD of well - water level [TOC]):** 6.19  
**Calculated Well Volume (V=6hd<sup>2</sup>)**  
**(V = vol in gal; D = well diam. in ft):** 1.01

Water Level Measurements		
Date	Time	Water Level (BTOS)
11/29/2010	14:48	13.81
12/2/2010	13:15	14.82
12/2/2010	13:30	14.00

**WELL DEVELOPMENT/PURGING DATA**

Sample Identification: ASH-MW9-12022010

#### **Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 12/2/2010

Signature:  Date: 12/2/2010

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/2/2010	13:35	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 ( $V = \pi h d^2$ )  
( $V = \text{vol in gal}$ ;  $D = \text{well diam. in ft}$ ): 0.96

Water Level Measurements		
Date	Time	Water Level (BTOS)
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

Sample Identification: ASH-MW10-1212010

#### **Weather Conditions During Sampling:**

**Comments:** \_\_\_\_\_

Signature: John Johnson Date: 12/1/2010

Signature: John W. Jones Date: 12/1/2010

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



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# **Groundwater Sample Collection Log**

Page 1 of 1

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

**Boring ID:** MW-11  
**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: 17.00  
Approximate Depth of Water Column (ft)  
(h = TD of well - water level [TOC]): 16.60  
Calculated Well Volume (V=6hd<sup>2</sup>)  
(V = vol in gal; D = well diam. in ft): 2.71

Water Level Measurements		
Date	Time	Water Level (BTOP)
11/29/2010	15:44	0.40
12/1/2010	12:10	10:58
12/1/2010	12:20	11:15

**WELL DEVELOPMENT/PURGING DATA**

Sample Identification: ASH-MW11-12012010 ASH-RS2-12012010

#### **Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 12/1/2010

Signature: Chris Johnson Date: 12/1/2010

Josh Brown & Chris Towell

GROUNDWATER SAMPLE CONTAINERS			
Date	Time	Sample Container	Preservative
12/1/2010	12:30	3-40 mL VOA; 1 liter Amber	
12/1/2010	12:15	3-40 mL VOA; 1 liter Amber	



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## **Groundwater Sample Collection Log**

Page 1 of 1

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=6hd<sup>2</sup>)  
(V = vol in gal; D = well diam. in ft): 0.34

**WELL DEVELOPMENT/PURGING DATA**

Sample Identification: ASH-MW12-12012010

#### **Weather Conditions During Sampling:**

**Comments:**

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

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



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# **Groundwater Sample Collection Log**

Page 1 of 1

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)  
( $b = TD$  of well - water level [TOC]): 7.64  
Calculated Well Volume ( $V=6\pi h^2 D$ )  
( $V = \text{vol in gal}$ ;  $D = \text{well diam. in ft}$ ): 1.25

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

**WELL DEVELOPMENT/PURGING DATA**

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

#### **Weather Conditions During Sampling:**

Comments: \_\_\_\_\_

Signature: John Wilson Jr Date: 12/2/2010

## 1.1 Basic Definitions

GROUNDWATER SAMPLE CONTAINERS				
Date	Time	Sample Container	Preservative	
12/3/2010	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

Page 1 of 1

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=6hd<sup>2</sup>)  
(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 Date: 12/2/2010

*Josh Brown & Chris Terrell*

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

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## Groundwater Sample Collection Log

Page 1 of 1

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=6hd<sup>2</sup>)  
(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 Webber for Date: 12/2/2010

*Josh Brown & Chris Terrell*

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

Page 1 of 1

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)  
 $(h = \text{TD of well} - \text{water level [TOC]})$ : 10.51  
 Calculated Well Volume ( $V=6\pi h D^2$ )  
 $(V = \text{vol in gal; } D = \text{well diam. in ft})$ : 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 (mS/cm)	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 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	



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# **Groundwater Sample Collection Log**

Page 1 of 1

**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)  
( $b = TD$  of well - water level [TOC]): 3.49  
Calculated Well Volume ( $V = \pi h D^2 / 4$ )  
( $V = \text{vol in gal}$ ;  $D = \text{well diam. in ft}$ ): 0.57

Water Level Measurements		
Date	Time	Water Level (BTCC)
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**

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

#### **Weather Conditions During Sampling:**

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**Comments:**

Signature: Chris Weller Date: 12/3/2010

Josh Brown + Chin Treadell

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 ( $V = \pi h D^2 / 4$ )  
( $V = \text{vol in gal}$ ;  $D = \text{well diam. in ft}$ ): Unknown

Water Level Measurements		
Date	Time	Water Level (BTOS)
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**

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

**Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 12/3/2010

110-10 T pp

118-100

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		



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## **Groundwater Sample Collection Log**

Page 1 of 1

**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)  
(b= TD of well - water level [TOC]): Unknown  
Calculated Well Volume ( $V = \pi h d^2$ )  
(V = vol in gal; D = well diam. in ft): Unknown

Water Level Measurements		
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

**WELL DEVELOPMENT/PURGING DATA**

Sample Identification: ASH-MW19-12022010

#### **Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 12/2/2010

Date: 12/2/2010

Josh Brown + Chi Taneil

GROUNDWATER SAMPLE CONTAINERS			
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=6hd<sup>2</sup>)  
(V = vol. in gal; D = well diam. in ft): 1.03

Water Level Measurements		
Date	Time	Water Level (BTOP)
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**

Sample Identification: ASH-MW20-12032010

#### **Weather Conditions During Sampling:**

**Comments:**

Signature:  Date: 12/3/2010

$$1 - \beta = \frac{\beta_1}{\beta_1}$$

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



# Groundwater Sample Collection Log

Page 1 of 1

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 ( $V= \pi h D^2 / 4$ ):  
 (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 Date: 12/3/2010Josh Brown + Chris Terrell

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



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## **Groundwater Sample Collection Log**

Page 1 of 1

**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: LFLS  
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=6hd<sup>2</sup>)  
(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

Sample Identification: ASH-MW22-12032010

#### **Weather Conditions During Sampling:**

**Comments:** *4*

Signature:  Date: 12/3/2010

Signature: Chris Weller Date: 12/3/2010

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



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## **Groundwater Sample Collection Log**

Page 1 of 1

**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=6hd<sup>3</sup>)  
(V = vol in gal; D = well diam. in ft): 1.49

Water Level Measurements		
Date	Time	Water Level (BTOS)
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**

Sample Identification: ASH-MW23-12032010

#### **Weather Conditions During Sampling:**

**Comments:**

Signature: Chris Waters Jr. Date: 12/3/2010

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

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## Groundwater Sample Collection Log

Page 1 of 1

Project Name:	Ashland Chemical (Hercules)	Boring ID:	MW-24
Project Number:	ASH4202010169	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 (R) BTOC:	13.00		
Approximate Depth of Water Column (R)			
(R = TD of well - water level [TOC]):	4.36		
Calculated Well Volume (V=πbd <sup>2</sup> )			
(V = vol in gal; D = well diam. in R):	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 (mS/cm)	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 Walker for Date: 12/1/2010

Josh Brown + Chris Terrell

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**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## 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

*Lidya Gulizia*

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

Lidya Gulizia  
Project Manager I  
[lidya.gulizia@testamericainc.com](mailto: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: 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 DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

TestAmerica Laboratories, Inc.  
TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**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

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
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-CMO0-11292010	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-MW03-11302010	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
1,1,2,2-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 (Surf)	107		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-CMO1-11292010

Lab Sample ID: 680-63585-2

Date Sampled: 11/29/2010 1520

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:	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
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
1,1,2,2-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-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 (Surf)	105		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-CMO2-11292010

Lab Sample ID: 680-63585-3

Date Sampled: 11/29/2010 1505

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:	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
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
1,1,2,2-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-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
Trichloroethylene	<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 (Surf)	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
Chlorofrom	<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  
Client Matrix: WaterDate Sampled: 11/29/2010 1500  
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
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 (Surf)	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

Client: Ashland Inc.

Job Number: 680-63585-1

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	Analysis Batch:	680-187749	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	00383.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
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 (Sur)	107		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-CMO5-11292010

Lab Sample ID: 680-63585-6

Date Sampled: 11/29/2010 1445

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:	00385.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1929			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1929				

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-CMO5-11292010

Lab Sample ID: 680-63585-6  
Client Matrix: WaterDate Sampled: 11/29/2010 1445  
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:	00385.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1929			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1929				

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	101		70 - 130
Toluene-d8 (Sur)	108		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-MWO3-11302010

Lab Sample ID: 680-63585-7

Date Sampled: 11/30/2010 1135

Client Matrix: Water

Date Received: 12/01/2010 0940

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-187772	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0382.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1846			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1846				

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-MWO3-11302010

Lab Sample ID: 680-63585-7

Client Matrix: Water

Date Sampled: 11/30/2010 1135

Date Received: 12/01/2010 0940

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-187772	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0382.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1846			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1846				

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	91		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Sur)	102		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-RSI-11302010

Lab Sample ID: 680-63585-8RB

Client Matrix: Water

Date Sampled: 11/30/2010 1125

Date Received: 12/01/2010 0940

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-187772	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	00384.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1915			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1915				

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	71		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-RSI-11302010

Lab Sample ID: 680-63585-8RB

Client Matrix: Water

Date Sampled: 11/30/2010 1125

Date Received: 12/01/2010 0940

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-187772	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0384.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1915			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1915				

Analyte	Result (ug/L)	Qualifier	RL
Toluene	1.9		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	90		70 - 130
Dibromofluoromethane	98		70 - 130
Toluene-d8 (Sur)	97		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: ASH-MW02-11302010

Date Sampled: 11/30/2010 1222

Lab Sample ID: 680-63585-9

Date Received: 12/01/2010 0940

Client Matrix: Water

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch: 680-187772	Instrument ID:	MSO2
Preparation:	5030B		Lab File ID:	o0386.d
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1943		Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1943			

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-MW02-11302010

Lab Sample ID: 680-63585-9

Date Sampled: 11/30/2010 1222

Client Matrix: Water

Date Received: 12/01/2010 0940

### 8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-187772	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0386.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1943			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1943				

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	92		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Surf)	97		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63585-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-63585-10TB  
Client Matrix: WaterDate Sampled: 11/29/2010 0000  
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:	o0379.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1803			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1803				

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: Trip Blank

Lab Sample ID: 680-63585-10TB  
Client Matrix: WaterDate Sampled: 11/29/2010 0000  
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:	00379.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1803			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1803				

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	100		70 - 130
Toluene-d8 (Surr)	107		70 - 130

## DATA REPORTING QUALIFIERS

Client: Ashland Inc.

Job Number: 680-63585-1

Lab Section	Qualifier	Description
GC/MS VOA		
	F	MS or MSD exceeds the control limits
	H	Sample was prepped or analyzed beyond the specified holding time

## **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:680-187749</b>					
LCS 680-187749/3	Lab Control Sample	T	Water	8260B	
LCSD 680-187749/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-187749/6	Method Blank	T	Water	8260B	
680-63585-4	ASH-CMO3-11292010	T	Water	8260B	
680-63585-5	ASH-CMO4-11292010	T	Water	8260B	
680-63585-6	ASH-CMO5-11292010	T	Water	8260B	
680-63585-10TB	Trip Blank	T	Water	8260B	
<b>Analysis Batch:680-187772</b>					
LCS 680-187772/5	Lab Control Sample	T	Water	8260B	
LCSD 680-187772/6	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-187772/8	Method Blank	T	Water	8260B	
680-63585-7	ASH-MWO3-11302010	T	Water	8260B	
680-63585-8RB	ASH-RSI-11302010	T	Water	8260B	
680-63585-9	ASH-MW02-11302010	T	Water	8260B	
<b>Analysis Batch:680-187867</b>					
LCS 680-187867/10	Lab Control Sample	T	Water	8260B	
LCSD 680-187867/11	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-187867/13	Method Blank	T	Water	8260B	
680-63585-9MS	Matrix Spike	T	Water	8260B	
680-63585-9MSD	Matrix Spike Duplicate	T	Water	8260B	
<b>Analysis Batch:680-189801</b>					
LCS 680-189801/3	Lab Control Sample	T	Water	8260B	
LCSD 680-189801/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-189801/10	Method Blank	T	Water	8260B	
680-63585-1	ASH-CMOO-11292010	T	Water	8260B	
680-63585-2	ASH-CMO1-11292010	T	Water	8260B	
680-63585-3	ASH-CMO2-11292010	T	Water	8260B	

#### Report Basis

T = Total

**Quality Control Results**

Client: Ashland Inc.

Job Number: 680-63585-1

**Surrogate Recovery Report****8260B Volatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
680-63585-1	ASH-CMOO-11292010	91	97	107
680-63585-2	ASH-CMO1-11292010	91	99	105
680-63585-3	ASH-CMO2-11292010	92	96	109
680-63585-4	ASH-CMO3-11292010	97	97	107
680-63585-5	ASH-CMO4-11292010	95	97	107
680-63585-6	ASH-CMO5-11292010	95	101	108
680-63585-7	ASH-MWO3-11302010	91	101	102
680-63585-8	ASH-RSI-11302010	90	98	97
680-63585-9	ASH-MW02-11302010	92	101	97
680-63585-10	Trip Blank	95	100	107
MB 680-187749/6		95	101	101
MB 680-187772/8		90	103	94
MB 680-187867/13		94	102	98
MB 680-189801/10		92	99	106
LCS 680-187749/3		99	104	103
LCS 680-187772/5		98	105	97
LCS 680-187867/10		98	102	97
LCS 680-189801/3		96	105	103
LCSD 680-187749/4		100	102	102
LCSD 680-187772/6		96	105	97
LCSD 680-187867/11		97	103	93
LCSD 680-189801/4		98	106	101
680-63585-9 MS	ASH-MW02-11302010 MS	93	98	91

**Surrogate**

BFB = 4-Bromofluorobenzene

**Acceptance Limits**

70-130

DBFM = Dibromofluoromethane

70-130

TOL = Toluene-d8 (Sur)

70-130

**Quality Control Results**

Client: Ashland Inc.

Job Number: 680-63585-1

**Surrogate Recovery Report**

**8260B Volatile Organic Compounds (GC/MS)**

**Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
680-63585-9 MSD 0 MSD	ASH-MW02-1130201	92	100	89

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Sur)	70-130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-187749

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-187749/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1153  
Date Prepared: 12/02/2010 1153

Analysis Batch: 680-187749  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq245.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		20
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

**Quality Control Results**

Client: Ashland Inc.

Job Number: 680-63585-1

**Method Blank - Batch: 680-187749****Method: 8260B****Preparation: 5030B**

Lab Sample ID: MB 680-187749/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1153  
Date Prepared: 12/02/2010 1153

Analysis Batch: 680-187749  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq245.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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	Acceptance Limits	
4-Bromofluorobenzene	95	70 - 130	
Dibromofluoromethane	101	70 - 130	
Toluene-d8 (Surf)	101	70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Lab Control Sample/

#### Lab Control Sample Duplicate Recovery Report - Batch: 680-187749

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-187749/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 0959  
Date Prepared: 12/02/2010 0959

Analysis Batch: 680-187749  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq237.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-187749/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1027  
Date Prepared: 12/02/2010 1027

Analysis Batch: 680-187749  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq239.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	113	113	100	26 - 180	0	50		
Benzene	103	103	100	70 - 130	1	30		
Dichlorobromomethane	101	102	100	70 - 130	0	30		
Bromoform	99	99	100	70 - 130	0	30		
Bromomethane	116	97	83	23 - 165	18	50		
2-Butanone (MEK)	113	116	100	49 - 172	2	30		
Carbon disulfide	95	94	98	54 - 132	2	30		
Carbon tetrachloride	93	92	98	70 - 130	0	30		
Chlorobenzene	105	103	98	70 - 130	1	30		
Chloroethane	97	84	86	56 - 152	14	40		
Chloroform	106	103	97	70 - 130	3	30		
Chloromethane	83	91	100	70 - 130	8	30		
Chlorodibromomethane	106	107	100	70 - 130	1	50		
1,2-Dibromo-3-Chloropropane	112	116	100	70 - 130	3	50		
Ethylene Dibromide	106	106	100	70 - 130	1	30		
Dibromomethane	99	99	100	70 - 130	0	30		
Dichlorodifluoromethane	88	87	97	44 - 146	1	50		
1,1-Dichloroethane	104	103	98	70 - 130	1	30		
1,2-Dichloroethane	98	96	98	70 - 130	2	30		
cis-1,2-Dichloroethene	107	104	96	70 - 130	3	30		
trans-1,2-Dichloroethene	103	100	97	70 - 130	2	30		
1,1-Dichloroethene	99	94	95	66 - 131	5	30		
1,2-Dichloropropane	102	100	98	70 - 130	2	30		
cis-1,3-Dichloropropene	103	104	100	70 - 130	1	30		
trans-1,3-Dichloropropene	103	101	98	70 - 130	2	50		
Ethylbenzene	102	103	100	70 - 130	1	30		
2-Hexanone	107	112	100	42 - 185	4	30		
Methylene Chloride	104	100	96	67 - 130	3	30		
4-Methyl-2-pentanone (MIBK)	101	105	100	70 - 130	3	30		
Styrene	99	98	99	70 - 130	1	30		
1,1,1,2-Tetrachloroethane	102	105	100	70 - 130	3	30		
1,1,2,2-Tetrachloroethane	101	104	99	70 - 130	3	30		
Tetrachloroethene	103	103	100	70 - 130	0	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-187749

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-187749/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 0959  
Date Prepared: 12/02/2010 0959

Analysis Batch: 680-187749  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq237.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-187749/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1027  
Date Prepared: 12/02/2010 1027

Analysis Batch: 680-187749  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq239.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Toluene	101	101	70 - 130	0	30		
1,1,1-Trichloroethane	98	98	70 - 130	0	30		
1,1,2-Trichloroethane	102	103	70 - 130	1	30		
Trichloroethene	100	100	70 - 130	1	30		
Trichlorofluoromethane	78	83	55 - 156	5	30		
1,2,3-Trichloropropane	107	110	70 - 130	3	30		
Vinyl acetate	106	106	60 - 176	0	30		
Vinyl chloride	87	88	67 - 134	1	30		
Xylenes, Total	101	101	70 - 130	0	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	99		100		70 - 130		
Dibromofluoromethane	104		102		70 - 130		
Toluene-d8 (Surr)	103		102		70 - 130		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-187772

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-187772/8  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1207  
Date Prepared: 12/02/2010 1207

Analysis Batch: 680-187772  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq246.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		20
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
Chlorobenzene	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
Chlooroethane	<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		1.0
Dichlorodifluoromethane	<1.0		2.0
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-Dichloropropene	<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

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-187772

Method: 8260B  
Preparation: 5030B

Lab Sample ID: MB 680-187772/8  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1207  
Date Prepared: 12/02/2010 1207

Analysis Batch: 680-187772  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq246.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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		2.0
Vinyl acetate	<2.0		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	90	70 - 130	
Dibromofluoromethane	103	70 - 130	
Toluene-d8 (Sur)	94	70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-187772

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-187772/5  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1013  
Date Prepared: 12/02/2010 1013

Analysis Batch: 680-187772  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq238.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-187772/6  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/02/2010 1041  
Date Prepared: 12/02/2010 1041

Analysis Batch: 680-187772  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq240.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	111	110	26 - 180	1	50		
Benzene	99	99	70 - 130	1	30		
Dichlorobromomethane	97	96	70 - 130	1	30		
Bromoform	99	100	70 - 130	1	30		
Bromomethane	78	78	23 - 165	1	50		
2-Butanone (MEK)	107	103	49 - 172	3	30		
Carbon disulfide	89	90	54 - 132	1	30		
Carbon tetrachloride	90	91	70 - 130	0	30		
Chlorobenzene	106	103	70 - 130	3	30		
Chloroethane	88	89	56 - 152	1	40		
Chloroform	102	102	70 - 130	1	30		
Chloromethane	85	86	70 - 130	1	30		
Chlorodibromomethane	105	105	70 - 130	0	50		
1,2-Dibromo-3-Chloropropane	96	94	70 - 130	3	50		
Ethylene Dibromide	95	96	70 - 130	0	30		
Dibromomethane	92	90	70 - 130	2	30		
Dichlorodifluoromethane	78	76	44 - 146	3	50		
1,1-Dichloroethane	102	102	70 - 130	0	30		
1,2-Dichloroethane	92	87	70 - 130	5	30		
cis-1,2-Dichloroethene	105	104	70 - 130	1	30		
trans-1,2-Dichloroethene	103	104	70 - 130	1	30		
1,1-Dichloroethene	99	103	66 - 131	3	30		
1,2-Dichloropropane	97	96	70 - 130	1	30		
cis-1,3-Dichloropropene	97	98	70 - 130	1	30		
trans-1,3-Dichloropropene	100	96	70 - 130	4	50		
Ethylbenzene	103	102	70 - 130	0	30		
2-Hexanone	108	105	42 - 185	3	30		
Methylene Chloride	92	93	67 - 130	1	30		
4-Methyl-2-pentanone (MIBK)	91	90	70 - 130	1	30		
Styrene	103	100	70 - 130	3	30		
1,1,1,2-Tetrachloroethane	104	103	70 - 130	1	30		
1,1,2,2-Tetrachloroethane	101	98	70 - 130	4	30		
Tetrachloroethene	108	111	70 - 130	2	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-187772

Method: 8260B  
Preparation: 5030B

LCS Lab Sample ID:	LCS 680-187772/5	Analysis Batch:	680-187772	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq238.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1013			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1013				

LCSD Lab Sample ID:	LCSD 680-187772/6	Analysis Batch:	680-187772	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq240.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/02/2010 1041			Final Weight/Volume:	5 mL
Date Prepared:	12/02/2010 1041				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Toluene	95	97	70 - 130	2	30	
1,1,1-Trichloroethane	96	95	70 - 130	1	30	
1,1,2-Trichloroethane	96	93	70 - 130	3	30	
Trichloroethene	99	99	70 - 130	0	30	
Trichlorofluoromethane	83	83	55 - 156	0	30	
1,2,3-Trichloropropane	102	104	70 - 130	2	30	
Vinyl acetate	105	102	60 - 176	3	30	
Vinyl chloride	86	88	67 - 134	2	30	
Xylenes, Total	102	101	70 - 130	1	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	98		96		70 - 130	
Dibromofluoromethane	105		105		70 - 130	
Toluene-d8 (Sur)	97		97		70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-187867

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-187867/13  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/03/2010 1152  
Date Prepared: 12/03/2010 1152

Analysis Batch: 680-187867  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: qq260.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		20
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
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		1.0
Dichlorodifluoromethane	<2.0		2.0
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		1.0
Iodomethane	<5.0		10
Isobutyl alcohol	<40		5.0
Methacrylonitrile	<20		40
Methylene Chloride	<5.0		20
Methyl methacrylate	<1.0		5.0
4-Methyl-2-pentanone (MIBK)	<10		1.0
Pentachloroethane	<5.0		10
Propionitrile	<20		5.0
Styrene	<1.0		20
			1.0

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-187867

Method: 8260B  
Preparation: 5030B

Lab Sample ID: MB 680-187867/13      Analysis Batch: 680-187867  
Client Matrix: Water      Prep Batch: N/A  
Dilution: 1.0      Units: ug/L  
Date Analyzed: 12/03/2010 1152  
Date Prepared: 12/03/2010 1152

Instrument ID: MSO2  
Lab File ID: oq260.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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		2.0
Vinyl acetate	<2.0		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	94	70 - 130	
Dibromofluoromethane	102	70 - 130	
Toluene-d8 (Sur)	98	70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### **Lab Control Sample/**

### **Lab Control Sample Duplicate Recovery Report - Batch: 680-187867**

**Method: 8260B**

**Preparation: 5030B**

LCS Lab Sample ID: LCS 680-187867/10  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 0958  
 Date Prepared: 12/03/2010 0958

Analysis Batch: 680-187867

Prep Batch: N/A

Units: ug/L

Instrument ID: MSO2

Lab File ID: oq252.d

Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-187867/11  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 1026  
 Date Prepared: 12/03/2010 1026

Analysis Batch: 680-187867

Prep Batch: N/A

Units: ug/L

Instrument ID: MSO2

Lab File ID: oq254.d

Initial Weight/Volume: 5 mL

Final Weight/Volume: 5 mL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	111	106	26 - 180	5	50		
Benzene	101	96	70 - 130	6	30		
Dichlorobromomethane	97	94	70 - 130	3	30		
Bromoform	95	95	70 - 130	0	30		
Bromomethane	65	69	23 - 165	6	50		
2-Butanone (MEK)	111	108	49 - 172	2	30		
Carbon disulfide	88	89	54 - 132	1	30		
Carbon tetrachloride	89	89	70 - 130	1	30		
Chlorobenzene	104	103	70 - 130	0	30		
Chloroethane	89	89	56 - 152	1	40		
Chloroform	103	101	70 - 130	1	30		
Chloromethane	84	83	70 - 130	1	30		
Chlorodibromomethane	103	102	70 - 130	1	50		
1,2-Dibromo-3-Chloropropane	93	93	70 - 130	0	50		
Ethylene Dibromide	95	92	70 - 130	4	30		
Dibromomethane	91	87	70 - 130	5	30		
Dichlorodifluoromethane	80	79	44 - 146	1	50		
1,1-Dichloroethane	99	98	70 - 130	1	30		
1,2-Dichloroethane	93	86	70 - 130	8	30		
cis-1,2-Dichloroethene	103	101	70 - 130	2	30		
trans-1,2-Dichloroethene	102	102	70 - 130	0	30		
1,1-Dichloroethene	100	101	66 - 131	1	30		
1,2-Dichloropropane	101	95	70 - 130	6	30		
cis-1,3-Dichloropropene	100	96	70 - 130	4	30		
trans-1,3-Dichloropropene	101	95	70 - 130	6	50		
Ethylbenzene	104	104	70 - 130	0	30		
2-Hexanone	109	104	42 - 185	4	30		
Methylene Chloride	93	93	67 - 130	0	30		
4-Methyl-2-pentanone (MIBK)	95	90	70 - 130	6	30		
Styrene	104	104	70 - 130	0	30		
1,1,1,2-Tetrachloroethane	102	102	70 - 130	0	30		
1,1,2,2-Tetrachloroethane	101	99	70 - 130	2	30		
Tetrachloroethene	113	112	70 - 130	1	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-187867

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-187867/10  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/03/2010 0958  
Date Prepared: 12/03/2010 0958

Analysis Batch: 680-187867  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq252.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-187867/11  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/03/2010 1026  
Date Prepared: 12/03/2010 1026

Analysis Batch: 680-187867  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq254.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Toluene	96	91	70 - 130	5	30		
1,1,1-Trichloroethane	99	94	70 - 130	5	30		
1,1,2-Trichloroethane	98	94	70 - 130	4	30		
Trichloroethene	102	96	70 - 130	7	30		
Trichlorofluoromethane	83	82	55 - 156	1	30		
1,2,3-Trichloropropane	104	100	70 - 130	4	30		
Vinyl acetate	104	100	60 - 176	4	30		
Vinyl chloride	89	87	67 - 134	2	30		
Xylenes, Total	103	102	70 - 130	1	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
	98		97		70 - 130		
4-Bromofluorobenzene	102		103		70 - 130		
Dibromofluoromethane	97		93		70 - 130		
Toluene-d8 (Surr)							

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Matrix Spike/

### Matrix Spike Duplicate Recovery Report - Batch: 680-187867

Method: 8260B

Preparation: 5030B

MS Lab Sample ID:	680-63585-9	Analysis Batch:	680-187867	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	o0416.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/03/2010 1609			Final Weight/Volume:	5 mL
Date Prepared:	12/03/2010 1609				

MSD Lab Sample ID:	680-63585-9	Analysis Batch:	680-187867	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	o0418.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/03/2010 1637			Final Weight/Volume:	5 mL
Date Prepared:	12/03/2010 1637				

Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acetone	97	79	26 - 180	20	50		
Benzene	101	101	70 - 130	1	30		
Dichlorobromomethane	92	93	70 - 130	1	30		
Bromoform	88	91	70 - 130	3	30		
Bromomethane	58	51	23 - 165	14	50		
2-Butanone (MEK)	100	98	49 - 172	3	30		
Carbon disulfide	82	80	54 - 132	3	30		
Carbon tetrachloride	88	92	70 - 130	4	30		
Chlorobenzene	103	104	70 - 130	1	30		
Chloroethane	85	77	56 - 152	11	40		
Chloroform	102	101	70 - 130	0	30		
Chloromethane	73	69	70 - 130	6	30		F
Chlorodibromomethane	100	106	70 - 130	6	50		
1,2-Dibromo-3-Chloropropane	77	78	70 - 130	2	50		
Ethylene Dibromide	86	84	70 - 130	2	30		
Dibromomethane	85	84	70 - 130	1	30		
Dichlorodifluoromethane	71	65	44 - 146	9	50		
1,1-Dichloroethane	101	101	70 - 130	1	30		
1,2-Dichloroethane	87	88	70 - 130	1	30		
cis-1,2-Dichloroethene	103	102	70 - 130	1	30		
trans-1,2-Dichloroethene	104	107	70 - 130	3	30		
1,1-Dichloroethene	101	105	66 - 131	4	30		
1,2-Dichloropropane	98	97	70 - 130	1	30		
cis-1,3-Dichloropropene	95	94	70 - 130	0	30		
trans-1,3-Dichloropropene	92	92	70 - 130	1	50		
Ethylbenzene	103	104	70 - 130	1	30		
2-Hexanone	95	101	42 - 185	5	30		
Methylene Chloride	78	77	67 - 130	1	30		
4-Methyl-2-pentanone (MIBK)	84	85	70 - 130	1	30		
Styrene	98	99	70 - 130	0	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### **Matrix Spike/**

### **Matrix Spike Duplicate Recovery Report - Batch: 680-187867**

**Method: 8260B**

**Preparation: 5030B**

MS Lab Sample ID: 680-63585-9      Analysis Batch: 680-187867  
 Client Matrix: Water      Prep Batch: N/A  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 1609  
 Date Prepared: 12/03/2010 1609

Instrument ID: MSO2  
 Lab File ID: o0416.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

MSD Lab Sample ID: 680-63585-9      Analysis Batch: 680-187867  
 Client Matrix: Water      Prep Batch: N/A  
 Dilution: 1.0  
 Date Analyzed: 12/03/2010 1637  
 Date Prepared: 12/03/2010 1637

Instrument ID: MSO2  
 Lab File ID: o0418.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	% Rec.		RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD				
1,1,1,2-Tetrachloroethane	100	105	70 - 130	5	30	
1,1,2,2-Tetrachloroethane	94	95	70 - 130	1	30	
Tetrachloroethene	114	117	70 - 130	2	30	
Toluene	90	88	70 - 130	3	30	
1,1,1-Trichloroethane	96	96	70 - 130	0	30	
1,1,2-Trichloroethane	93	92	70 - 130	1	30	
Trichloroethene	99	100	70 - 130	1	30	
Trichlorofluoromethane	89	87	55 - 156	3	30	
1,2,3-Trichloropropane	98	96	70 - 130	1	30	
Vinyl acetate	103	109	60 - 176	6	30	
Vinyl chloride	83	78	67 - 134	6	30	
Xylenes, Total	100	101	70 - 130	1	30	
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	93		92		70 - 130	
Dibromofluoromethane	98		100		70 - 130	
Toluene-d8 (Surf)	91		89		70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-189801

Lab Sample ID: MB 680-189801/10  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2351  
Date Prepared: 12/21/2010 2351

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: MSO  
Lab File ID: oq551.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	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

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Method Blank - Batch: 680-189801

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-189801/10  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2351  
Date Prepared: 12/21/2010 2351

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq551.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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	Acceptance Limits
4-Bromofluorobenzene	92	70 - 130
Dibromofluoromethane	99	70 - 130
Toluene-d8 (Surf)	106	70 - 130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-189801**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID: LCS 680-189801/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2147  
Date Prepared: 12/21/2010 2147

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq545.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-189801/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2208  
Date Prepared: 12/21/2010 2208

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq546.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	106	113	26 - 180	6	50		
Benzene	104	103	70 - 130	2	30		
Dichlorobromomethane	99	99	70 - 130	0	30		
Bromoform	90	91	70 - 130	2	30		
Bromomethane	54	40	23 - 165	30	50		
2-Butanone (MEK)	111	113	49 - 172	2	30		
Carbon disulfide	103	102	54 - 132	1	30		
Carbon tetrachloride	86	83	70 - 130	3	30		
Chlorobenzene	104	104	70 - 130	0	30		
Chloroethane	86	100	56 - 152	16	40		
Chloroform	108	108	70 - 130	0	30		
Chloromethane	96	94	70 - 130	2	30		
Chlorodibromomethane	103	103	70 - 130	1	50		
1,2-Dibromo-3-Chloropropane	101	104	70 - 130	3	50		
Ethylene Dibromide	104	102	70 - 130	2	30		
Dibromomethane	99	98	70 - 130	1	30		
Dichlorodifluoromethane	91	91	44 - 146	0	50		
1,1-Dichloroethane	107	105	70 - 130	1	30		
1,2-Dichloroethane	94	89	70 - 130	5	30		
cis-1,2-Dichloroethene	109	109	70 - 130	0	30		
trans-1,2-Dichloroethene	107	106	70 - 130	1	30		
1,1-Dichloroethene	104	102	66 - 131	2	30		
1,2-Dichloropropane	100	97	70 - 130	2	30		
cis-1,3-Dichloropropene	96	96	70 - 130	0	30		
trans-1,3-Dichloropropene	93	93	70 - 130	1	50		
Ethylbenzene	102	102	70 - 130	1	30		
2-Hexanone	100	102	42 - 185	2	30		
Methylene Chloride	108	106	67 - 130	1	30		
4-Methyl-2-pentanone (MIBK)	100	99	70 - 130	1	30		
Styrene	99	98	70 - 130	1	30		
1,1,1,2-Tetrachloroethane	95	94	70 - 130	1	30		
1,1,2,2-Tetrachloroethane	105	108	70 - 130	3	30		
Tetrachloroethene	99	100	70 - 130	1	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63585-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-189801

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-189801/3	Analysis Batch:	680-189801	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq545.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/21/2010 2147			Final Weight/Volume:	5 mL
Date Prepared:	12/21/2010 2147				

LCSD Lab Sample ID:	LCSD 680-189801/4	Analysis Batch:	680-189801	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq546.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/21/2010 2208			Final Weight/Volume:	5 mL
Date Prepared:	12/21/2010 2208				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Toluene	103	99	70 - 130	4	30		
1,1,1-Trichloroethane	94	91	70 - 130	3	30		
1,1,2-Trichloroethane	102	100	70 - 130	2	30		
Trichloroethene	98	97	70 - 130	1	30		
Trichlorofluoromethane	96	98	55 - 156	2	30		
1,2,3-Trichloropropane	105	107	70 - 130	2	30		
Vinyl acetate	141	141	60 - 176	0	30		
Vinyl chloride	98	99	67 - 134	1	30		
Xylenes, Total	101	101	70 - 130	1	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
4-Bromofluorobenzene	96		98		70 - 130		
Dibromofluoromethane	105		106		70 - 130		
Toluene-d8 (Sur)	103		101		70 - 130		

Serial Number 032787

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD					TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404			Website: www.testamericainc.com Phone: (912) 354-7858 Fax: (912) 352-0165							
<b>TestAmerica</b> <small>THE LEADER IN ENVIRONMENTAL TESTING</small>					Alternate Laboratory Name/Location			Phone: Fax:							
PROJECT REFERENCE		PROJECT NO.	PROJECT LOCATION (STATE) MS	MATRIX TYPE	REQUIRED ANALYSIS						PAGE	OF			
TAL (LAB) PROJECT MANAGER <i>Lidia Gutierrez</i>		P.O. NUMBER	CONTRACT NO.								STANDARD REPORT DELIVERY <input checked="" type="checkbox"/>				
CLIENT (SITE) PM <i>Tim Hassett</i>		CLIENT PHONE	CLIENT FAX								DATE DUE _____				
CLIENT NAME <i>Ashland Chemical</i>		CLIENT E-MAIL									EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>				
CLIENT ADDRESS 500 Hercules Rd Wilmington, DE 19808											DATE DUE _____				
COMPANY CONTRACTING THIS WORK (if applicable)										NUMBER OF COOLERS SUBMITTED PER SHIPMENT:					
SAMPLE		SAMPLE IDENTIFICATION			COMPOSITE (G) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT...)	HCl	PRESERVATIVE			REMARKS	
DATE	TIME				G	✓		AIR							
11-27-2010	1525	ASH - CM00 - 11242010			G	✓		AIR		3					
11-29-2010	1520	ASH - CM01 - 11242010			G	✓		AIR		3					
11-29-2010	1505	ASH - CM02 - 11242010			G	✓		AIR		3					
11-29-2010	1500	ASH - CM03 - 11242010			G	✓		AIR		3					
11-29-2010	1450	ASH - CM04 - 11242010			G	✓		AIR		3					
11-29-2010	1445	ASH - CM05 - 11242010			G	✓		AIR		3					
11-30-2010	1135	ASH - MN03 - 11302010			G	✓		AIR		3					
11-30-2010	1125	ASH - RS1 - 11302010			G	✓		AIR		3					
11-30-2010	1222	ASH - MN02 - 11302010 (MS/MSD)			G	✓		AIR		9					
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE		TIME	RELINQUISHED BY: (SIGNATURE)		DATE		TIME		
<i>Chesirewell</i>						11-30-2010		1340							
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE		TIME	RECEIVED BY: (SIGNATURE)		DATE		TIME		
				<i>Fed Ex A&amp;B 11-09396747860</i>											
LABORATORY USE ONLY															
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	SAVANNAH LOG NO.		LABORATORY REMARKS							
<i>Tim Hassett</i>		12/1/10	09:40	YES <input type="radio"/>		680-63585		0.8							

## Login Sample Receipt Check List

Client: Ashland Inc.

Job Number: 680-63585-1

**Login Number:** 63585  
**Creator:** Kicklighter, Marilyn  
**List Number:** 1

**List Source:** TestAmerica Savannah

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Trip Blank Not On COC
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 680-63715-1

Job Description: Hercules Hattiesburg GW DEC 2010

For:

Ashland Inc.  
500 Hercules Road  
Wilmington, DE 19894

Attention: Timothy Hassett



Approved for release.  
Lidya Gulizia  
Project Manager I  
12/22/2010 12:26 PM

Lidya Gulizia  
Project Manager I  
[lidya.gulizia@testamericainc.com](mailto: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: LA00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

TestAmerica Laboratories, Inc.  
TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**680-63715-1 / Revised Report (12/22/10)**

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for four analytes to recover outside criteria for this method when a full list spike is utilized. The LCS/LCSD associated with batch 188482 had one analyte outside control limits; therefore, re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: The following sample(s) was analyzed outside the method defined holding time due to laboratory error:

ASH-FD1-12012010 (680-63715-1), ASH-MW04-12012010 (680-63715-3), ASH-MW05-12012010 (680-63715-6), ASH-MW06-12012010 (680-63715-8), ASH-MW07-12012010 (680-63715-9), ASH-MW10-12012010 (680-63715-2), ASH-MW11-12012010 (680-63715-4), ASH-MW12-12012010 (680-63715-7), ASH-RS2-12012010 (680-63715-5).

No other 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-FD1-12012010 (680-63715-1), ASH-MW04-12012010 (680-63715-3), ASH-MW05-12012010 (680-63715-6), ASH-MW06-12012010 (680-63715-8), ASH-MW07-12012010 (680-63715-9), ASH-MW10-12012010 (680-63715-2), ASH-MW11-12012010 (680-63715-4), ASH-MW12-12012010 (680-63715-7), ASH-RS2-12012010 (680-63715-5). 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.

Chloroform and Toluene was detected in the following rinse blank sample submitted with the samples and analyzed outside of holding time with the samples noted above: ASH-RS2-12012010 (680-63715-5). The results for the other rinse blank submitted with this sample delivery group also contained these contaminants and is reported as sample ASH-RS3-12022010 (680-63715-13).

No other additional comments.

## METHOD SUMMARY

Client: Ashland Inc.

Job Number: 680-63715-1

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: 680-63715-1

Method	Analyst	Analyst ID
SW846 8260B	Bearden, Robert	RB
SW846 8260B	Cowart, Judson	WJC
SW846 8260B	Lanier, Carolyn	CL

## SAMPLE SUMMARY

Client: Ashland Inc.

Job Number: 680-63715-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-63715-1FD	ASH-FD1-12012010	Water	12/01/2010 0000	12/03/2010 1755
680-63715-2	ASH-MW10-12012010	Water	12/01/2010 1055	12/03/2010 1755
680-63715-3	ASH-MW04-12012010	Water	12/01/2010 1150	12/03/2010 1755
680-63715-4	ASH-MW11-12012010	Water	12/01/2010 1230	12/03/2010 1755
680-63715-5RB	ASH-RS2-12012010	Water	12/01/2010 1215	12/03/2010 1755
680-63715-6	ASH-MW05-12012010	Water	12/01/2010 1300	12/03/2010 1755
680-63715-7	ASH-MW12-12012010	Water	12/01/2010 1415	12/03/2010 1755
680-63715-8	ASH-MW06-12012010	Water	12/01/2010 1400	12/03/2010 1755
680-63715-9	ASH-MW07-12012010	Water	12/01/2010 1445	12/03/2010 1755
680-63715-10	ASH-MW24-12012010	Water	12/01/2010 1525	12/03/2010 1755
680-63715-11	ASH-MW16-12022010	Water	12/02/2010 0950	12/03/2010 1755
680-63715-12	ASH-MW15-12022010	Water	12/02/2010 1030	12/03/2010 1755
680-63715-13RB	ASH-RS3-12022010	Water	12/02/2010 1040	12/03/2010 1755
680-63715-14	ASH-MW14-12022010	Water	12/02/2010 1120	12/03/2010 1755
680-63715-15	ASH-MW13-12022010	Water	12/02/2010 1200	12/03/2010 1755
680-63715-16	ASH-MW19-12022010	Water	12/02/2010 1235	12/03/2010 1755
680-63715-17FD	ASH-FD2-12022010	Water	12/02/2010 0000	12/03/2010 1755
680-63715-18	ASH-MW09-12022010	Water	12/02/2010 1335	12/03/2010 1755
680-63715-19	ASH-MW08-12022010	Water	12/02/2010 1410	12/03/2010 1755
680-63715-20TB	TB	Water	12/01/2010 0000	12/03/2010 1755

## **SAMPLE RESULTS**

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-FD1-12012010

Lab Sample ID: 680-63715-1FD

Client Matrix: Water

Date Sampled: 12/01/2010 0000

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1066.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0401			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0401				

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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-FD1-12012010

Lab Sample ID: 680-63715-1FD

Client Matrix: Water

Date Sampled: 12/01/2010 0000

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1066.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0401			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0401				

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	94		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8 (Surf)	107		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW10-12012010

Lab Sample ID: 680-63715-2

Client Matrix: Water

Date Sampled: 12/01/2010 1055  
Date Received: 12/03/2010 1755**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1055.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0012			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0012				

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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW10-12012010

Lab Sample ID: 680-63715-2

Client Matrix: Water

Date Sampled: 12/01/2010 1055

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1055.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0012			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0012				

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	1.0
Vinyl chloride	<1.0	H	2.0
Xylenes, Total	<2.0	H	1.0
			2.0
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8 (Sur)	109		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW04-12012010

Lab Sample ID: 680-63715-3

Client Matrix: Water

Date Sampled: 12/01/2010 1150  
Date Received: 12/03/2010 1755**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1056.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0033			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0033				

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-Dichloropropene	<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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW04-12012010

Lab Sample ID: 680-63715-3

Client Matrix: Water

Date Sampled: 12/01/2010 1150

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1056.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0033			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0033				

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
Trichloroethylene	<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	98		70 - 130
Toluene-d8 (Surf)	106		70 - 130

## Analytical Data

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW11-12012010

Lab Sample ID: 680-63715-4

Date Sampled: 12/01/2010 1230

Client Matrix: Water

Date Received: 12/03/2010 1755

### 8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1057.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0054			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0054				

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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW11-12012010

Lab Sample ID: 680-63715-4

Client Matrix: Water

Date Sampled: 12/01/2010 1230

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1057.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0054			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0054				

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	99		70 - 130
Toluene-d8 (Surr)	106		70 - 130

## Analytical Data

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-RS2-12012010

Lab Sample ID: 680-63715-5RB

Date Sampled: 12/01/2010 1215

Client Matrix: Water

Date Received: 12/03/2010 1755

### 8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1058.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0115			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0115				

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	68	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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-RS2-12012010

Lab Sample ID: 680-63715-5RB

Client Matrix: Water

Date Sampled: 12/01/2010 1215

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1058.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0115			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0115				

Analyte	Result (ug/L)	Qualifier	RL
Toluene	1.7	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	99		70 - 130
Toluene-d8 (Sur)	109		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW05-12012010

Lab Sample ID: 680-63715-6

Date Sampled: 12/01/2010 1300

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1059.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0135			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0135				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	27	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-Dichloropropene	<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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW05-12012010

Lab Sample ID: 680-63715-6

Client Matrix: Water

Date Sampled: 12/01/2010 1300

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1059.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0135			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0135				

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 (Surf)	107		70 - 130

## Analytical Data

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW12-12012010

Lab Sample ID: 680-63715-7

Date Sampled: 12/01/2010 1415

Client Matrix: Water

Date Received: 12/03/2010 1755

### 8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1060.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0156			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0156				

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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW12-12012010

Lab Sample ID: 680-63715-7  
Client Matrix: WaterDate Sampled: 12/01/2010 1415  
Date Received: 12/03/2010 1755**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1060.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0156			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0156				

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	98		70 - 130
Toluene-d8 (Surr)	107		70 - 130

## Analytical Data

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW06-12012010

Lab Sample ID: 680-63715-8

Date Sampled: 12/01/2010 1400

Client Matrix: Water

Date Received: 12/03/2010 1755

### 8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1061.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0217			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0217				

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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW06-12012010

Lab Sample ID: 680-63715-8

Client Matrix: Water

Date Sampled: 12/01/2010 1400

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1061.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0217			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0217				

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	97		70 - 130
Toluene-d8 (Surf)	106		70 - 130

## Analytical Data

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW07-12012010

Lab Sample ID: 680-63715-9

Date Sampled: 12/01/2010 1445

Client Matrix: Water

Date Received: 12/03/2010 1755

### 8260B Volatile Organic Compounds (GC/MS)

Method: 8260B  
Preparation: 5030B  
Dilution: 1.0  
Date Analyzed: 12/22/2010 0238  
Date Prepared: 12/22/2010 0238

Analysis Batch: 680-189801

Instrument ID: MSO  
Lab File ID: o1062.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
1,1,2,2-Tetrachloroethane	<1.0	H	1.0
Tetrachloroethene	<1.0	H	1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW07-12012010

Lab Sample ID: 680-63715-9

Client Matrix: Water

Date Sampled: 12/01/2010 1445

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-189801	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o1062.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/22/2010 0238			Final Weight/Volume:	5 mL
Date Prepared:	12/22/2010 0238				

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**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW24-12012010

Lab Sample ID: 680-63715-10

Date Sampled: 12/01/2010 1525

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0143.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 1844			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 1844				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<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
Chlordibromomethane	<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
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW24-12012010

Lab Sample ID: 680-63715-10

Client Matrix: Water

Date Sampled: 12/01/2010 1525

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0143.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 1844			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 1844				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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	106		70 - 130
Dibromofluoromethane	108		70 - 130
Toluene-d8 (Surf)	106		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW16-12022010

Lab Sample ID: 680-63715-11

Date Sampled: 12/02/2010 0950

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0145.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 1913			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 1913				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<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
Chlorodibromomethane	<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
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW16-12022010

Lab Sample ID: 680-63715-11

Client Matrix: Water

Date Sampled: 12/02/2010 0950

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0145.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 1913			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 1913				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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	110		70 - 130
Dibromofluoromethane	109		70 - 130
Toluene-d8 (Surf)	105		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW15-12022010

Lab Sample ID: 680-63715-12

Date Sampled: 12/02/2010 1030

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0159.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2237			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2237				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<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
Chlorodibromomethane	<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
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW15-12022010

Lab Sample ID: 680-63715-12

Client Matrix: Water

Date Sampled: 12/02/2010 1030

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0159.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2237			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2237				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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	116		70 - 130
Dibromofluoromethane	106		70 - 130
Toluene-d8 (Sur)	106		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-RS3-12022010

Lab Sample ID: 680-63715-13RB

Client Matrix: Water

Date Sampled: 12/02/2010 1040

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0163.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2335			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2335				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<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
Chlorodibromomethane	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	75		1.0
Chloromethane	<1.0		1.0
3-Chloro-1-propene	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	1.8		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-RS3-12022010

Lab Sample ID: 680-63715-13RB

Client Matrix: Water

Date Sampled: 12/02/2010 1040

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0163.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2335			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2335				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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	109		70 - 130
Dibromofluoromethane	102		70 - 130
Toluene-d8 (Surf)	98		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW14-12022010

Lab Sample ID: 680-63715-14

Client Matrix: Water

Date Sampled: 12/02/2010 1120

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0153.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2110			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2110				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<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
Chlorodibromomethane	<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
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW14-12022010

Lab Sample ID: 680-63715-14

Client Matrix: Water

Date Sampled: 12/02/2010 1120

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0153.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2110			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2110				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<1.0		1.0
1,1,1-Trichloroethane	<1.0		1.0
1,1,2-Trichloroethane	<1.0		1.0
Trichloroethylene	<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	107		70 - 130
Dibromofluoromethane	106		70 - 130
Toluene-d8 (Surf)	106		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW13-12022010

Lab Sample ID: 680-63715-15

Client Matrix: Water

Date Sampled: 12/02/2010 1200

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188482	Instrument ID:	MSP
Preparation:	5030B			Lab File ID:	p0189.d
Dilution:	10			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1536			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1536				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<250		250
Acetonitrile	<400		400
Acrolein	<200		200
Acrylonitrile	<200		200
Benzene	530		200
Bromoform	<10		10
Bromomethane	<10		10
2-Butanone (MEK)	<100		100
Carbon disulfide	<20		20
Carbon tetrachloride	970		10
Chlorobenzene	25		10
2-Chloro-1,3-butadiene	<10		10
Chlorodibromomethane	<10		10
Chloroethane	<10		10
Chloroform	230		10
Chloromethane	<10		10
3-Chloro-1-propene	<10		10
cis-1,2-Dichloroethene	<10		10
cis-1,3-Dichloropropene	<10		10
1,2-Dibromo-3-Chloropropane	<10		10
Dibromomethane	<10	*	10
Dichlorobromomethane	<10		10
Dichlorodifluoromethane	<10		10
1,1-Dichloroethane	<10		10
1,2-Dichloroethane	<10		10
1,1-Dichloroethene	<10		10
1,2-Dichloropropane	<10		10
Ethylbenzene	<10		10
Ethylene Dibromide	<10		10
Ethyl methacrylate	<10		10
2-Hexanone	<100		100
Iodomethane	<50		50
Isobutyl alcohol	<400		400
Methacrylonitrile	<200		200
Methylene Chloride	<50		50
Methyl methacrylate	<10		10
4-Methyl-2-pentanone (MIBK)	<100		100
Pentachloroethane	<50		50
Propionitrile	<200		200
Styrene	<10		10
1,1,1,2-Tetrachloroethane	<10		10
1,1,2,2-Tetrachloroethane	<10		10
Tetrachloroethene	<10		10
Toluene	<10		10
trans-1,4-Dichloro-2-butene	<20		20
trans-1,2-Dichloroethene	<10		10

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW13-12022010

Lab Sample ID: 680-63715-15

Date Sampled: 12/02/2010 1200

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188482	Instrument ID:	MSP
Preparation:	5030B			Lab File ID:	p0189.d
Dilution:	10			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1536			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1536				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<10		10
1,1,1-Trichloroethane	<10		10
1,1,2-Trichloroethane	<10		10
Trichloroethene	<10		10
Trichlorofluoromethane	<10		10
1,2,3-Trichloropropane	<10		10
Vinyl acetate	<20		20
Vinyl chloride	<10		10
Xylenes, Total	<20		20

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromo fluoro benzene	89		70 - 130
Dibromo fluoro methane	85		70 - 130
Toluene-d8 (Surf)	94		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW19-12022010

Lab Sample ID: 680-63715-16

Date Sampled: 12/02/2010 1235

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0157.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2208			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2208				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	61		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	9.1		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
Chlorodibromomethane	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	2.7		1.0
Chloromethane	<1.0		1.0
3-Chloro-1-propene	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	1.4		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	2.2		1.0
Ethylene Dibromide	<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
Toluene	2.5		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW19-12022010

Lab Sample ID: 680-63715-16

Client Matrix: Water

Date Sampled: 12/02/2010 1235

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0157.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2208			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2208				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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	111		70 - 130
Dibromofluoromethane	109		70 - 130
Toluene-d8 (Surr)	105		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-FD2-12022010

Lab Sample ID: 680-63715-17FD

Client Matrix: Water

Date Sampled: 12/02/2010 0000

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0167.d
Dilution:	10			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0033			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0033				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<250		250
Acetonitrile	<400		400
Acrolein	<200		200
Acrylonitrile	<200		200
Benzene	530		10
Bromoform	<10		10
Bromomethane	<10		100
2-Butanone (MEK)	<100		20
Carbon disulfide	<20		10
Carbon tetrachloride	970		10
Chlorobenzene	28		10
2-Chloro-1,3-butadiene	<10		10
Chlorodibromomethane	<10		10
Chloroethane	<10		10
Chloroform	260		10
Chloromethane	<10		10
3-Chloro-1-propene	<10		10
cis-1,2-Dichloroethene	<10		10
cis-1,3-Dichloropropene	<10		10
1,2-Dibromo-3-Chloropropane	<10		10
Dibromomethane	<10		10
Dichlorobromomethane	<10		10
Dichlorodifluoromethane	<10		10
1,1-Dichloroethane	<10		10
1,2-Dichloroethane	<10		10
1,1-Dichloroethene	<10		10
1,2-Dichloropropane	<10		10
Ethylbenzene	<10		10
Ethylene Dibromide	<10		10
Ethyl methacrylate	<10		10
2-Hexanone	<100		100
Iodomethane	<50		50
Isobutyl alcohol	<400		400
Methacrylonitrile	<200		200
Methylene Chloride	<50		50
Methyl methacrylate	<10		10
4-Methyl-2-pentanone (MIBK)	<100		100
Pentachloroethane	<50		50
Propionitrile	<200		200
Styrene	<10		10
1,1,1,2-Tetrachloroethane	<10		10
1,1,2,2-Tetrachloroethane	<10		10
Tetrachloroethene	<10		10
Toluene	<10		10
trans-1,4-Dichloro-2-butene	<20		20
trans-1,2-Dichloroethene	<10		10

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-FD2-12022010

Lab Sample ID: 680-63715-17FD

Client Matrix: Water

Date Sampled: 12/02/2010 0000

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0167.d
Dilution:	10			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0033			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0033				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<10		10
1,1,1-Trichloroethane	<10		10
1,1,2-Trichloroethane	<10		10
Trichloroethene	<10		10
Trichlorofluoromethane	<10		10
1,2,3-Trichloropropane	<10		10
Vinyl acetate	<20		20
Vinyl chloride	<10		10
Xylenes, Total	<20		20

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	112		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8 (Surf)	100		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW09-12022010

Lab Sample ID: 680-63715-18

Client Matrix: Water

Date Sampled: 12/02/2010 1335

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0161.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2306			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2306				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	3.0		20
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
Chlorobenzene	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
Chlorodibromomethane	<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
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	1.3		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW09-12022010

Lab Sample ID: 680-63715-18

Client Matrix: Water

Date Sampled: 12/02/2010 1335

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0161.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 2306			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 2306				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		1.0
			2.0
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	115		70 - 130
Dibromofluoromethane	108		70 - 130
Toluene-d8 (Surr)	106		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW08-12022010

Lab Sample ID: 680-63715-19

Date Sampled: 12/02/2010 1410

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0165.d
Dilution:	50			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0004			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0004				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<1200		1200
Acetonitrile	<2000		2000
Acrolein	<1000		1000
Acrylonitrile	<1000		1000
Benzene	6000		50
Bromoform	<50		50
Bromomethane	<50		50
2-Butanone (MEK)	<500		500
Carbon disulfide	<100		100
Carbon tetrachloride	1000		50
Chlorobenzene	150		50
2-Chloro-1,3-butadiene	<50		50
Chlorodibromomethane	<50		50
Chloroethane	<50		50
Chloroform	300		50
Chloromethane	<50		50
3-Chloro-1-propene	<50		50
cis-1,2-Dichloroethene	<50		50
cis-1,3-Dichloropropene	<50		50
1,2-Dibromo-3-Chloropropane	<50		50
Dibromomethane	<50		50
Dichlorobromomethane	<50		50
Dichlorodifluoromethane	<50		50
1,1-Dichloroethane	<50		50
1,2-Dichloroethane	<50		50
1,1-Dichloroethene	<50		50
1,2-Dichloropropane	<50		50
Ethylbenzene	74		50
Ethylene Dibromide	<50		50
Ethyl methacrylate	<50		50
2-Hexanone	<500		500
Iodomethane	<250		250
Isobutyl alcohol	<2000		2000
Methacrylonitrile	<1000		1000
Methylene Chloride	560		250
Methyl methacrylate	<50		50
4-Methyl-2-pentanone (MIBK)	<500		500
Pentachloroethane	<250		250
Propionitrile	<1000		1000
Styrene	<50		50
1,1,1,2-Tetrachloroethane	<50		50
1,1,2,2-Tetrachloroethane	<50		50
Tetrachloroethene	<50		50
Toluene	<50		50
trans-1,4-Dichloro-2-butene	<100		100
trans-1,2-Dichloroethene	<50		50

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: ASH-MW08-12022010

Lab Sample ID: 680-63715-19

Client Matrix: Water

Date Sampled: 12/02/2010 1410

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188389	Instrument ID:	MSP2
Preparation:	5030B			Lab File ID:	p0165.d
Dilution:	50			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0004			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0004				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<50		50
1,1,1-Trichloroethane	<50		50
1,1,2-Trichloroethane	<50		50
Trichloroethene	<50		50
Trichlorofluoromethane	<50		50
1,2,3-Trichloropropane	<50		50
Vinyl acetate	<100		50
Vinyl chloride	<50		100
Xylenes, Total	<100		50
			100

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	106		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8 (Surf)	100		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: TB

Lab Sample ID: 680-63715-20TB

Date Sampled: 12/01/2010 0000

Client Matrix: Water

Date Received: 12/03/2010 1755

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188482	Instrument ID:	MSP
Preparation:	5030B			Lab File ID:	p0187.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1507			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1507				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<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
Chlorodibromomethane	<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
cis-1,2-Dichloroethene	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<1.0	*	1.0
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethylene Dibromide	<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
Toluene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		2.0
trans-1,2-Dichloroethene	<1.0		1.0

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63715-1

Client Sample ID: TB

Lab Sample ID: 680-63715-20TB  
Client Matrix: WaterDate Sampled: 12/01/2010 0000  
Date Received: 12/03/2010 1755**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188482	Instrument ID:	MSP
Preparation:	5030B			Lab File ID:	p0187.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1507			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1507				

Analyte	Result (ug/L)	Qualifier	RL
trans-1,3-Dichloropropene	<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		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		1.0
			2.0
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	87		70 - 130
Dibromofluoromethane	88		70 - 130
Toluene-d8 (Surf)	89		70 - 130

## DATA REPORTING QUALIFIERS

Client: Ashland Inc.

Job Number: 680-63715-1

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
GC/MS VOA	*	LCS or LCSD exceeds the control limits
	H	Sample was prepped or analyzed beyond the specified holding time

## **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:680-188389</b>					
LCS 680-188389/6	Lab Control Sample	T	Water	8260B	
LCSD 680-188389/7	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-188389/9	Method Blank	T	Water	8260B	
680-63715-10	ASH-MW24-12012010	T	Water	8260B	
680-63715-11	ASH-MW16-12022010	T	Water	8260B	
680-63715-12	ASH-MW15-12022010	T	Water	8260B	
680-63715-13RB	ASH-RS3-12022010	T	Water	8260B	
680-63715-14	ASH-MW14-12022010	T	Water	8260B	
680-63715-16	ASH-MW19-12022010	T	Water	8260B	
680-63715-17FD	ASH-FD2-12022010	T	Water	8260B	
680-63715-18	ASH-MW09-12022010	T	Water	8260B	
680-63715-19	ASH-MW08-12022010	T	Water	8260B	
<b>Analysis Batch:680-188482</b>					
LCS 680-188482/5	Lab Control Sample	T	Water	8260B	
LCSD 680-188482/6	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-188482/8	Method Blank	T	Water	8260B	
680-63715-15	ASH-MW13-12022010	T	Water	8260B	
680-63715-20TB	TB	T	Water	8260B	
<b>Analysis Batch:680-189801</b>					
LCS 680-189801/3	Lab Control Sample	T	Water	8260B	
LCSD 680-189801/4	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-189801/10	Method Blank	T	Water	8260B	
680-63715-1FD	ASH-FD1-12012010	T	Water	8260B	
680-63715-2	ASH-MW10-12012010	T	Water	8260B	
680-63715-3	ASH-MW04-12012010	T	Water	8260B	
680-63715-4	ASH-MW11-12012010	T	Water	8260B	
680-63715-5RB	ASH-RS2-12012010	T	Water	8260B	
680-63715-6	ASH-MW05-12012010	T	Water	8260B	
680-63715-7	ASH-MW12-12012010	T	Water	8260B	
680-63715-8	ASH-MW06-12012010	T	Water	8260B	
680-63715-9	ASH-MW07-12012010	T	Water	8260B	

#### Report Basis

T = Total

**Quality Control Results**

Client: Ashland Inc.

Job Number: 680-63715-1

**Surrogate Recovery Report****8260B Volatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
680-63715-1	ASH-FD1-12012010	94	99	107
680-63715-2	ASH-MW10-12012010	94	99	109
680-63715-3	ASH-MW04-12012010	92	98	106
680-63715-4	ASH-MW11-12012010	92	99	106
680-63715-5	ASH-RS2-12012010	92	99	109
680-63715-6	ASH-MW05-12012010	91	97	107
680-63715-7	ASH-MW12-12012010	92	98	107
680-63715-8	ASH-MW06-12012010	92	97	106
680-63715-9	ASH-MW07-12012010	91	97	107
680-63715-10	ASH-MW24-12012010	106	108	106
680-63715-11	ASH-MW16-12022010	110	109	105
680-63715-12	ASH-MW15-12022010	116	106	106
680-63715-13	ASH-RS3-12022010	109	102	98
680-63715-14	ASH-MW14-12022010	107	106	106
680-63715-15	ASH-MW13-12022010	89	85	94
680-63715-16	ASH-MW19-12022010	111	109	105
680-63715-17	ASH-FD2-12022010	112	99	100
680-63715-18	ASH-MW09-12022010	115	108	106
680-63715-19	ASH-MW08-12022010	106	99	100
680-63715-20	TB	87	88	89

**Surrogate****Acceptance Limits**

BFB = 4-Bromofluorobenzene

70-130

DBFM = Dibromofluoromethane

70-130

TOL = Toluene-d8 (Surf)

70-130

**Quality Control Results**

Job Number: 680-63715-1

Client: Ashland Inc.

**Surrogate Recovery Report**

**8260B Volatile Organic Compounds (GC/MS)**

**Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
MB 680-188389/9		103	97	99
MB 680-188482/8		86	88	89
MB 680-189801/10		92	99	106
LCS 680-188389/6		105	102	98
LCS 680-188482/5		85	87	88
LCS 680-189801/3		96	105	103
LCSD 680-188389/7		107	103	99
LCSD 680-188482/6		90	89	91
LCSD 680-189801/4		98	106	101

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Surf)	70-130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Method Blank - Batch: 680-188389

Lab Sample ID: MB 680-188389/9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/08/2010 1805  
Date Prepared: 12/08/2010 1805

Analysis Batch: 680-188389  
Prep Batch: N/A  
Units: ug/L

Method: 8260B

Preparation: 5030B

Instrument ID: MSP2  
Lab File ID: pq128.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		20
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
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
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
1,1-Dichloroethene	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-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		40
Methylene Chloride	<5.0		20
Methyl methacrylate	<1.0		5.0
4-Methyl-2-pentanone (MIBK)	<10		1.0
Pentachloroethane	<5.0		10
Propionitrile	<20		5.0
Styrene	<1.0		20
1,1,1,2-Tetrachloroethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		2.0

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Method Blank - Batch: 680-188389

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-188389/9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/08/2010 1805  
Date Prepared: 12/08/2010 1805

Analysis Batch: 680-188389  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSP2  
Lab File ID: pq128.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

#### Analyte

Analyte	Result	Qual	RL
trans-1,2-Dichloroethene	<1.0		
Tetrachloroethene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
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	<1.0		1.0
Vinyl chloride	<2.0		2.0
Xylenes, Total	<1.0		1.0
	<2.0		2.0

#### Surrogate

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	103	70 - 130
Dibromofluoromethane	97	70 - 130
Toluene-d8 (Surf)	99	70 - 130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-188389**

**Method: 8260B**

**Preparation: 5030B**

LCS Lab Sample ID: LCS 680-188389/6  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/08/2010 1608  
 Date Prepared: 12/08/2010 1608

Analysis Batch: 680-188389  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: MSP2  
 Lab File ID: pq120.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-188389/7  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/08/2010 1637  
 Date Prepared: 12/08/2010 1637

Analysis Batch: 680-188389  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: MSP2  
 Lab File ID: pq122.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	104	106	26 - 180	2	50		
Benzene	98	99	70 - 130	1	30		
Bromoform	101	100	70 - 130	1	30		
Bromomethane	83	101	23 - 165	20	50		
2-Butanone (MEK)	107	103	49 - 172	3	30		
Carbon disulfide	106	111	54 - 132	5	30		
Carbon tetrachloride	95	99	70 - 130	4	30		
Chlorobenzene	101	103	70 - 130	2	30		
Chloroethane	96	101	56 - 152	4	40		
Chloroform	105	107	70 - 130	3	30		
Chloromethane	98	101	70 - 130	3	30		
Chlorodibromomethane	94	95	70 - 130	1	50		
1,2-Dibromo-3-Chloropropane	101	100	70 - 130	2	50		
Dibromomethane	100	99	70 - 130	1	30		
Dichlorobromomethane	106	106	70 - 130	1	30		
Dichlorodifluoromethane	95	101	44 - 146	6	50		
1,1-Dichloroethane	100	103	70 - 130	3	30		
1,2-Dichloroethane	96	96	70 - 130	0	30		
cis-1,2-Dichloroethene	96	100	70 - 130	4	30		
1,1-Dichloroethene	110	115	66 - 131	4	30		
Ethylene Dibromide	100	102	70 - 130	2	30		
1,2-Dichloropropane	103	99	70 - 130	4	30		
cis-1,3-Dichloropropene	102	105	70 - 130	2	30		
Ethylbenzene	105	106	70 - 130	1	30		
2-Hexanone	112	106	42 - 185	5	30		
Methylene Chloride	98	99	67 - 130	1	30		
4-Methyl-2-pentanone (MIBK)	105	104	70 - 130	1	30		
Styrene	105	104	70 - 130	1	30		
1,1,1,2-Tetrachloroethane	94	96	70 - 130	2	30		
1,1,2,2-Tetrachloroethane	98	99	70 - 130	1	30		
trans-1,2-Dichloroethene	101	106	70 - 130	4	30		
Tetrachloroethene	103	104	70 - 130	1	30		
trans-1,3-Dichloropropene	99	102	70 - 130	2	50		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-188389

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-188389/6	Analysis Batch:	680-188389	Instrument ID:	MSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	pq120.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 1608			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 1608				

LCSD Lab Sample ID:	LCSD 680-188389/7	Analysis Batch:	680-188389	Instrument ID:	MSP2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	pq122.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/08/2010 1637			Final Weight/Volume:	5 mL
Date Prepared:	12/08/2010 1637				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Toluene	100	101	70 - 130	1	30	
1,1,1-Trichloroethane	103	105	70 - 130	2	30	
1,1,2-Trichloroethane	97	97	70 - 130	0	30	
Trichloroethene	100	102	70 - 130	2	30	
Trichlorofluoromethane	97	106	55 - 156	8	30	
1,2,3-Trichloropropane	99	96	70 - 130	3	30	
Vinyl acetate	105	104	60 - 176	1	30	
Vinyl chloride	99	103	67 - 134	4	30	
Xylenes, Total	104	103	70 - 130	1	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	105		107		70 - 130	
Dibromofluoromethane	102		103		70 - 130	
Toluene-d8 (Surr)	98		99		70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Method Blank - Batch: 680-188482

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-188482/8  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/09/2010 1212  
Date Prepared: 12/09/2010 1212

Analysis Batch: 680-188482  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSP  
Lab File ID: pq141.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		20
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
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
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
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
1,1-Dichloroethene	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethyl methacrylate	<1.0		1.0
2-Hexanone	<10		1.0
Iodomethane	<5.0		10
Isobutyl alcohol	<40		5.0
Methacrylonitrile	<20		40
Methylene Chloride	<5.0		20
Methyl methacrylate	<1.0		5.0
4-Methyl-2-pentanone (MIBK)	<10		1.0
Pentachloroethane	<5.0		10
Propionitrile	<20		5.0
Styrene	<1.0		20
1,1,1,2-Tetrachloroethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		2.0

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Method Blank - Batch: 680-188482

Lab Sample ID: MB 680-188482/8  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/09/2010 1212  
Date Prepared: 12/09/2010 1212

Analysis Batch: 680-188482  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: MSP  
Lab File ID: pq141.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
trans-1,2-Dichloroethene	<1.0		
Tetrachloroethene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
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	<1.0		1.0
Vinyl chloride	<2.0		2.0
Xylenes, Total	<1.0		1.0
	<2.0		2.0
Surrogate	% Rec	Acceptance Limits	
4-Bromofluorobenzene	86	70 - 130	
Dibromofluoromethane	88	70 - 130	
Toluene-d8 (Surf)	89	70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-188482**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID:	LCS 680-188482/5	Analysis Batch:	680-188482	Instrument ID:	MSP
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	pq133.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1016			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1016				

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LCSD Lab Sample ID:	LCSD 680-188482/6	Analysis Batch:	680-188482	Instrument ID:	MSP
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	pq135.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1045			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1045				

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	90	99	26 - 180	10	50		
Benzene	91	94	70 - 130	4	30		
Bromoform	70	74	70 - 130	6	30		
Bromomethane	104	106	23 - 165	2	50		
2-Butanone (MEK)	79	81	49 - 172	2	30		
Carbon disulfide	93	94	54 - 132	1	30		
Carbon tetrachloride	83	87	70 - 130	4	30		
Chlorobenzene	89	92	70 - 130	3	30		
Chloroethane	97	96	56 - 152	1	40		
Chloroform	91	93	70 - 130	2	30		
Chloromethane	94	95	70 - 130	2	30		
Chlorodibromomethane	79	83	70 - 130	4	50		
1,2-Dibromo-3-Chloropropane	65	69	70 - 130	7	50	*	*
Dibromomethane	80	82	70 - 130	2	30		
Dichlorobromomethane	83	86	70 - 130	3	30		
Dichlorodifluoromethane	100	102	44 - 146	2	50		
1,1-Dichloroethane	94	96	70 - 130	2	30		
1,2-Dichloroethane	84	87	70 - 130	3	30		
cis-1,2-Dichloroethene	89	90	70 - 130	1	30		
1,1-Dichloroethene	91	92	66 - 131	1	30		
Ethylene Dibromide	81	82	70 - 130	2	30		
1,2-Dichloropropane	90	92	70 - 130	3	30		
cis-1,3-Dichloropropene	84	87	70 - 130	3	30		
Ethylbenzene	92	94	70 - 130	3	30		
2-Hexanone	76	80	42 - 185	5	30		
Methylene Chloride	90	92	67 - 130	2	30		
4-Methyl-2-pentanone (MIBK)	74	77	70 - 130	3	30		
Styrene	89	93	70 - 130	4	30		
1,1,1,2-Tetrachloroethane	82	87	70 - 130	5	30		
1,1,2,2-Tetrachloroethane	79	84	70 - 130	6	30		
trans-1,2-Dichloroethene	92	94	70 - 130	3	30		
Tetrachloroethene	92	97	70 - 130	5	30		
trans-1,3-Dichloropropene	80	82	70 - 130	3	50		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-188482

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-188482/5	Analysis Batch:	680-188482	Instrument ID:	MSP
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	pq133.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1016			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1016				

LCSD Lab Sample ID:	LCSD 680-188482/6	Analysis Batch:	680-188482	Instrument ID:	MSP
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	pq135.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1045			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1045				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Toluene	90	92	70 - 130	3	30	
1,1,1-Trichloroethane	89	91	70 - 130	2	30	
1,1,2-Trichloroethane	86	88	70 - 130	3	30	
Trichloroethene	87	90	70 - 130	4	30	
Trichlorofluoromethane	108	111	55 - 156	3	30	
1,2,3-Trichloropropane	75	81	70 - 130	8	30	
Vinyl acetate	79	82	60 - 176	3	30	
Vinyl chloride	94	96	67 - 134	1	30	
Xylenes, Total	91	94	70 - 130	3	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	85		90		70 - 130	
Dibromofluoromethane	87		89		70 - 130	
Toluene-d8 (Surr)	88		91		70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Method Blank - Batch: 680-189801

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-189801/10  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2351  
Date Prepared: 12/21/2010 2351

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq551.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		
Benzene	<1.0		20
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
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
Dibromomethane	<1.0		1.0
Dichlorobromomethane	<1.0		1.0
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
1,1-Dichloroethene	<1.0		1.0
Ethylene Dibromide	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
Ethylbenzene	<1.0		1.0
Ethyl methacrylate	<1.0		1.0
2-Hexanone	<10		1.0
Iodomethane	<5.0		10
Isobutyl alcohol	<40		5.0
Methacrylonitrile	<20		40
Methylene Chloride	<5.0		20
Methyl methacrylate	<1.0		5.0
4-Methyl-2-pentanone (MIBK)	<10		1.0
Pentachloroethane	<5.0		10
Propionitrile	<20		5.0
Styrene	<1.0		20
1,1,1,2-Tetrachloroethane	<1.0		1.0
trans-1,4-Dichloro-2-butene	<2.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		2.0

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Method Blank - Batch: 680-189801

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-189801/10  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2351  
Date Prepared: 12/21/2010 2351

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq551.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
trans-1,2-Dichloroethene	<1.0		1.0
Tetrachloroethene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
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	<1.0		1.0
Vinyl chloride	<2.0		2.0
Xylenes, Total	<1.0		1.0
	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	92	70 - 130
Dibromofluoromethane	99	70 - 130
Toluene-d8 (Surf)	106	70 - 130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-189801**

**Method: 8260B**

**Preparation: 5030B**

LCS Lab Sample ID: LCS 680-189801/3  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/21/2010 2147  
 Date Prepared: 12/21/2010 2147

Analysis Batch: 680-189801  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: MSO  
 Lab File ID: oq545.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-189801/4  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 12/21/2010 2208  
 Date Prepared: 12/21/2010 2208

Analysis Batch: 680-189801  
 Prep Batch: N/A  
 Units: ug/L

Instrument ID: MSO  
 Lab File ID: oq546.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	106	113	26 - 180	6	50			
Benzene	104	103	70 - 130	2	30			
Bromoform	90	91	70 - 130	2	30			
Bromomethane	54	40	23 - 165	30	50			
2-Butanone (MEK)	111	113	49 - 172	2	30			
Carbon disulfide	103	102	54 - 132	1	30			
Carbon tetrachloride	86	83	70 - 130	3	30			
Chlorobenzene	104	104	70 - 130	0	30			
Chloroethane	86	100	56 - 152	16	40			
Chloroform	108	108	70 - 130	0	30			
Chloromethane	96	94	70 - 130	2	30			
Chlorodibromomethane	103	103	70 - 130	1	50			
1,2-Dibromo-3-Chloropropane	101	104	70 - 130	3	50			
Dibromomethane	99	98	70 - 130	1	30			
Dichlorobromomethane	99	99	70 - 130	0	30			
Dichlorodifluoromethane	91	91	44 - 146	0	50			
1,1-Dichloroethane	107	105	70 - 130	1	30			
1,2-Dichloroethane	94	89	70 - 130	5	30			
cis-1,2-Dichloroethene	109	109	70 - 130	0	30			
1,1-Dichloroethene	104	102	66 - 131	2	30			
Ethylene Dibromide	104	102	70 - 130	2	30			
1,2-Dichloropropane	100	97	70 - 130	2	30			
cis-1,3-Dichloropropene	96	96	70 - 130	0	30			
Ethylbenzene	102	102	70 - 130	1	30			
2-Hexanone	100	102	42 - 185	2	30			
Methylene Chloride	108	106	67 - 130	1	30			
4-Methyl-2-pentanone (MIBK)	100	99	70 - 130	1	30			
Styrene	99	98	70 - 130	1	30			
1,1,1,2-Tetrachloroethane	95	94	70 - 130	1	30			
1,1,2,2-Tetrachloroethane	105	108	70 - 130	3	30			
trans-1,2-Dichloroethene	107	106	70 - 130	1	30			
Tetrachloroethene	99	100	70 - 130	1	30			
trans-1,3-Dichloropropene	93	93	70 - 130	1	50			

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63715-1

### Lab Control Sample/

### Lab Control Sample Duplicate Recovery Report - Batch: 680-189801

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-189801/3  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2147  
Date Prepared: 12/21/2010 2147

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq545.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-189801/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/21/2010 2208  
Date Prepared: 12/21/2010 2208

Analysis Batch: 680-189801  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO  
Lab File ID: oq546.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Toluene	103	99	70 - 130	4	30	
1,1,1-Trichloroethane	94	91	70 - 130	3	30	
1,1,2-Trichloroethane	102	100	70 - 130	2	30	
Trichloroethene	98	97	70 - 130	1	30	
Trichlorofluoromethane	96	98	55 - 156	2	30	
1,2,3-Trichloropropane	105	107	70 - 130	2	30	
Vinyl acetate	141	141	60 - 176	0	30	
Vinyl chloride	98	99	67 - 134	1	30	
Xylenes, Total	101	101	70 - 130	1	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	96		98		70 - 130	
Dibromofluoromethane	105		106		70 - 130	
Toluene-d8 (Surr)	103		101		70 - 130	

Serial Number U32102

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

 TestAmerica Savannah  
 5102 LaRoche Avenue  
 Savannah, GA 31404

 Website: [www.testamericainc.com](http://www.testamericainc.com)  
 Phone: (912) 354-7858  
 Fax: (912) 352-0165
 Alternate Laboratory Name/Location
 Phone:  
 Fax:

PROJECT REFERENCE			PROJECT NO.	PROJECT LOCATION (STATE)	M/S	MATRIX TYPE	REQUIRED ANALYSIS							PAGE 1	OF 2		
TAL (LAB) PROJECT MANAGER Lidia (lwl212)			P.O. NUMBER	CONTRACT NO.		<b>PRESERVATIVE</b>  COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMI-SOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT,...)  ✓ ✓ ✓ ✓ ✓ ✓								STANDARD REPORT DELIVERY			
CLIENT (SITE) PM Tim Hazzell			CLIENT PHONE 251-342-4700	CLIENT FAX										DATE DUE			
CLIENT NAME Ashland Chemical			CLIENT E-MAIL caleb.dana@eco-systemsinc.com									EXPEDITED REPORT DELIVERY (SURCHARGE)					
CLIENT ADDRESS 5200 Hermitage Rd Wilmington, DE 19806												DATE DUE					
COMPANY CONTRACTING THIS WORK (if applicable)															NUMBER OF COOLERS SUBMITTED PER SHIPMENT:		
SAMPLE DATE	TIME	SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS SUBMITTED										REMARKS		
12-01-2010	---	ASH - FD1 - 12012010			G ✓			3									
12-01-2010	1055	ASH - MW10 - 12012010			G ✓			3									
12-01-2010	1150	ASH - MW04 - 12012010			G ✓			3									
12-01-2010	1230	ASH - MW11 - 12012010			G ✓			3									
12-01-2010	1245	ASH - RS2 - 12012010			G ✓		3										
12-01-2010	1304	ASH - MN05 - 12012010			G ✓		3										
12-01-2010	1415	ASH - MW12 - 12012010			G ✓		3										
12-01-2010	1400	ASH - MN06 - 12012010			G ✓		3										
12-01-2010	1445	ASH - MN07 - 12012010			G ✓		3										
12-01-2010	1525	ASH - MW24 - 12012010			G ✓		3										
12-02-2010	0950	ASH - MW16 - 12022010			G ✓		3										
12-02-2010	1030	ASH - MW15 - 12022010			G ✓		3										
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RELINQUISHED BY: (SIGNATURE)			DATE	TIME				
<i>J. Smith</i>		12-02-2010	1600														
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)			DATE	TIME	RECEIVED BY: (SIGNATURE)			DATE	TIME				
<i>Federick A. Schaffner</i>																	

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	YES <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS				
<i>M.L. K.</i>	12/11/10	0924	NO <input type="radio"/>			682-12715	C.2				

Serial Number 032783

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: [www.testamericainc.com](http://www.testamericainc.com)  
Phone: (912) 354-7858  
Fax: (912) 352-0165

 Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE		PROJECT NO.	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS										PAGE	OF				
TAL (LAB) PROJECT MANAGER <i>Lidia Gindzia</i>	P.O. NUMBER	CONTRACT NO.													2	2				
CLIENT (SITE) PM <i>Tim Hassett</i>	CLIENT PHONE 251-342-0700	CLIENT FAX													STANDARD REPORT DELIVERY					
CLIENT NAME Ashland (chemical)	CLIENT E-MAIL caleb.dana@eco-systemsinc.com														DATE DUE <input checked="" type="checkbox"/>					
CLIENT ADDRESS														EXPEDITED REPORT DELIVERY (SURCHARGE) <input type="checkbox"/>						
COMPANY CONTRACTING THIS WORK (if applicable)															NUMBER OF COOLERS SUBMITTED PER SHIPMENT:					
SAMPLE		SAMPLE IDENTIFICATION			COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMI-SOLID	AIR	PRESERVATIVE										REMARKS	
DATE	TIME				G	V			NUMBER OF CONTAINERS SUBMITTED											
12-01-2010	1040	ASH - RS3 - 12022010			G	V			3											
12-02-2010	1120	ASH - MW19 - 12022010			G	V			3											
12-02-2010	1200	ASH - MW13 - 12022010			G	V			3											
12-02-2010	1435	ASH - MW19 - 12022010			G	V			3											
12-02-2010	-	ASH - FDZ - 12022010			G	V			3											
12-01-2010	1335	ASH - MW09 - 12022010			G	V			3											
12-02-2010	1410	ASH - MW08 - 12022010			G	V			3											
RELINQUISHED BY: (SIGNATURE) <i>John Lavelle</i>		DATE 12-02-2010	TIME 1600	RELINQUISHED BY: (SIGNATURE)			DATE	TIME	RELINQUISHED BY: (SIGNATURE)			DATE	TIME							
RECEIVED BY: (SIGNATURE) FedEx Airbill 873467A16127		DATE	TIME	RECEIVED BY: (SIGNATURE)			DATE	TIME	RECEIVED BY: (SIGNATURE)			DATE	TIME							
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>John Lavelle</i>		DATE 12/3/10	TIME 0924	CUSTODY INTACT YES <input type="radio"/> NO <input checked="" type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 680-63715	LABORATORY REMARKS O-2													
LABORATORY USE ONLY																				

## Login Sample Receipt Check List

Client: Ashland Inc.

Job Number: 680-63715-1

Login Number: 63715  
Creator: Stokes, Mark E  
List Number: 1

List Source: TestAmerica Savannah

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



## ANALYTICAL REPORT

Job Number: 680-63727-1

Job Description: Hercules Hattiesburg GW DEC 2010

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

Attention: Timothy Hassett

Approved for release.  
Lidya Gulizia  
Project Manager I  
12/17/2010 3:56 PM

Lidya Gulizia  
Project Manager I  
[lidya.gulizia@testamericainc.com](mailto:lidya.gulizia@testamericainc.com)  
12/17/2010

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: 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 DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

TestAmerica Laboratories, Inc.  
TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative  
680-63727-1**

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

**VOA Prep**

No analytical or quality issues were noted.

**Comments**

No additional comments.

## METHOD SUMMARY

Client: Ashland Inc.

Job Number: 680-63727-1

Description	Lab Location	Method	Preparation Method
Matrix			
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: 680-63727-1

<u>Method</u>	<u>Analyst</u>	<u>Analyst ID</u>
SW846 8260B	Bearden, Robert	RB

## SAMPLE SUMMARY

Client: Ashland Inc.

Job Number: 680-63727-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-63727-1	ASH-MW17-12032010	Water	12/03/2010 0955	12/04/2010 1023
680-63727-2RB	ASH-RS4-12032010	Water	12/03/2010 1005	12/04/2010 1023
680-63727-3	ASH-MW18-12032010	Water	12/03/2010 1040	12/04/2010 1023
680-63727-4	ASH-MW20-12032010	Water	12/03/2010 1115	12/04/2010 1023
680-63727-5	ASH-MW21-12032010	Water	12/03/2010 1155	12/04/2010 1023
680-63727-6	ASH-MW22-12032010	Water	12/03/2010 1300	12/04/2010 1023
680-63727-7	ASH-MW23-12032010	Water	12/03/2010 1220	12/04/2010 1023
680-63727-8FD	ASH-FD3-12032010	Water	12/03/2010 0000	12/04/2010 1023

## **SAMPLE RESULTS**

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW17-12032010

Lab Sample ID: 680-63727-1

Client Matrix: Water

Date Sampled: 12/03/2010 0955

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0570.d
Dilution:	500			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1435			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1435				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<12000		12000
Acetonitrile	<20000		20000
Acrolein	<10000		10000
Acrylonitrile	<10000		10000
Benzene	<500		10000
Dichlorobromomethane	<500		500
Bromoform	<500		500
Bromomethane	<500		500
2-Butanone (MEK)	<5000		500
Carbon disulfide	<1000		5000
Carbon tetrachloride	32000		1000
Chlorobenzene	760		500
2-Chloro-1,3-butadiene	<500		500
Chloroethane	<500		500
Chloroform	5900		500
Chloromethane	<500		500
3-Chloro-1-propene	<500		500
Chlorodibromomethane	<500		500
1,2-Dibromo-3-Chloropropane	<500		500
Ethylene Dibromide	<500		500
Dibromomethane	<500		500
trans-1,4-Dichloro-2-butene	<1000		500
Dichlorodifluoromethane	<500		1000
1,1-Dichloroethane	<500		500
1,2-Dichloroethane	<500		500
cis-1,2-Dichloroethene	<500		500
trans-1,2-Dichloroethene	<500		500
1,1-Dichloroethene	<500		500
1,2-Dichloropropane	<500		500
cis-1,3-Dichloropropene	<500		500
trans-1,3-Dichloropropene	<500		500
Ethylbenzene	<500		500
Ethyl methacrylate	<500		500
2-Hexanone	<5000		500
Iodomethane	<2500		5000
Isobutyl alcohol	<20000		2500
Methacrylonitrile	<10000		20000
Methylene Chloride	<2500		10000
Methyl methacrylate	<500		2500
4-Methyl-2-pentanone (MIBK)	<5000		500
Pentachloroethane	<2500		5000
Propionitrile	<10000		2500
Styrene	<500		10000
1,1,1,2-Tetrachloroethane	<500		500
1,1,2,2-Tetrachloroethane	<500		500
Tetrachloroethene	<500		500

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW17-12032010

Lab Sample ID: 680-63727-1  
Client Matrix: WaterDate Sampled: 12/03/2010 0955  
Date Received: 12/04/2010 1023**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0570.d
Dilution:	500			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1435			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1435				

Analyte	Result (ug/L)	Qualifier	RL
Toluene	<500		500
1,1,1-Trichloroethane	<500		500
1,1,2-Trichloroethane	<500		500
Trichloroethene	<500		500
Trichlorofluoromethane	<500		500
1,2,3-Trichloropropane	<500		500
Vinyl acetate	<1000		500
Vinyl chloride	<500		1000
Xylenes, Total	<1000		500
			1000

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8 (Surr)	106		70 - 130

Client: Ashland Inc.

Analytical Data

Job Number: 680-63727-1

Client Sample ID: ASH-RS4-12032010

Lab Sample ID: 680-63727-2RB

Client Matrix: Water

Date Sampled: 12/03/2010 1005

Date Received: 12/04/2010 1023

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-188463	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o0555.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1826			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1826				

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)	<1.0		1.0
Carbon disulfide	<10		10
Carbon tetrachloride	<2.0		2.0
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	61		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		1.0
Dichlorodifluoromethane	<1.0		2.0
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	<1.0		1.0
Iodomethane	<10		10
Isobutyl alcohol	<5.0		5.0
Methacrylonitrile	<40		40
Methylene Chloride	<20		20
Methyl methacrylate	<5.0		5.0
4-Methyl-2-pentanone (MIBK)	<1.0		1.0
Pentachloroethane	<10		10
Propionitrile	<5.0		5.0
Styrene	<20		20
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: 680-63727-1

Client Sample ID: ASH-RS4-12032010

Lab Sample ID: 680-63727-2RB

Client Matrix: Water

Date Sampled: 12/03/2010 1005

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188463	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o0555.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1826			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1826				

Analyte	Result (ug/L)	Qualifier	RL
Toluene	1.5		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		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		1.0
			2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	96		70 - 130
Dibromofluoromethane	94		70 - 130
Toluene-d8 (Surr)	109		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW18-12032010

Lab Sample ID: 680-63727-3

Client Matrix: Water

Date Sampled: 12/03/2010 1040

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188463	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o0559.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1923			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1923				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	<1.0		20
Dichlorobromomethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
2-Butanone (MEK)	<10		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
Chlorobenzene	18		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		1.0
Dichlorodifluoromethane	<1.0		2.0
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		1.0
Iodomethane	<5.0		10
Isobutyl alcohol	<40		5.0
Methacrylonitrile	<20		40
Methylene Chloride	<5.0		20
Methyl methacrylate	<1.0		5.0
4-Methyl-2-pentanone (MIBK)	<10		1.0
Pentachloroethane	<5.0		10
Propionitrile	<20		5.0
Styrene	<1.0		20
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: 680-63727-1

Client Sample ID: ASH-MW18-12032010

Lab Sample ID: 680-63727-3

Client Matrix: Water

Date Sampled: 12/03/2010 1040

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188463	Instrument ID:	MSO
Preparation:	5030B			Lab File ID:	o0559.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1923			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1923				

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		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		1.0
			2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		70 - 130
Dibromofluoromethane	95		70 - 130
Toluene-d8 (Surf)	108		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW20-12032010

Lab Sample ID: 680-63727-4

Client Matrix: Water

Date Sampled: 12/03/2010 1115

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188461	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0558.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1909			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1909				

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		1.0
Carbon disulfide	<2.0		10
Carbon tetrachloride	<1.0		2.0
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		1.0
Dichlorodifluoromethane	<1.0		2.0
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	<1.0		1.0
Iodomethane	<10		10
Isobutyl alcohol	<5.0		5.0
Methacrylonitrile	<40		40
Methylene Chloride	<20		20
Methyl methacrylate	<5.0		5.0
4-Methyl-2-pentanone (MIBK)	<1.0		1.0
Pentachloroethane	<10		10
Propionitrile	<5.0		5.0
Styrene	<20		20
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: 680-63727-1

Client Sample ID: ASH-MW20-12032010

Lab Sample ID: 680-63727-4

Client Matrix: Water

Date Sampled: 12/03/2010 1115

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188461	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	00558.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1909			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1909				

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		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		1.0
			2.0
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		70 - 130
Dibromofluoromethane	101		70 - 130
Toluene-d8 (Surf)	104		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW21-12032010

Lab Sample ID: 680-63727-5

Client Matrix: Water

Date Sampled: 12/03/2010 1155

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188461	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	00560.d
Dilution:	50			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1937			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1937				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<1200		1200
Acetonitrile	<2000		2000
Acrolein	<1000		1000
Acrylonitrile	<1000		1000
Benzene	4400		
Dichlorobromomethane	<50		50
Bromoform	<50		50
Bromomethane	<50		50
2-Butanone (MEK)	<500		50
Carbon disulfide	<100		500
Carbon tetrachloride	<50		100
Chlorobenzene	180		50
2-Chloro-1,3-butadiene	<50		50
Chloroethane	<50		50
Chloroform	7300		50
Chloromethane	<50		50
3-Chloro-1-propene	<50		50
Chlorodibromomethane	<50		50
1,2-Dibromo-3-Chloropropane	<50		50
Ethylene Dibromide	<50		50
Dibromomethane	<50		50
trans-1,4-Dichloro-2-butene	<100		50
Dichlorodifluoromethane	<50		100
1,1-Dichloroethane	<50		50
1,2-Dichloroethane	84		50
cis-1,2-Dichloroethene	<50		50
trans-1,2-Dichloroethene	<50		50
1,1-Dichloroethene	<50		50
1,2-Dichloropropane	<50		50
cis-1,3-Dichloropropene	<50		50
trans-1,3-Dichloropropene	<50		50
Ethylbenzene	<50		50
Ethyl methacrylate	<50		50
2-Hexanone	<500		50
Iodomethane	<250		500
Isobutyl alcohol	<2000		250
Methacrylonitrile	<2000		2000
Methylene Chloride	<1000		1000
Methyl methacrylate	<250		250
4-Methyl-2-pentanone (MIBK)	<50		50
Pentachloroethane	510		500
Propionitrile	<250		250
Styrene	<1000		1000
1,1,1,2-Tetrachloroethane	<50		50
1,1,2,2-Tetrachloroethane	<50		50
Tetrachloroethene	<50		50

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW21-12032010

Lab Sample ID: 680-63727-5

Client Matrix: Water

Date Sampled: 12/03/2010 1155

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188461	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0560.d
Dilution:	50			Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1937			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1937				

Analyte	Result (ug/L)	Qualifier	RL
Toluene	4500		50
1,1,1-Trichloroethane	<50		50
1,1,2-Trichloroethane	<50		50
Trichloroethene	<50		50
Trichlorofluoromethane	<50		50
1,2,3-Trichloropropane	<50		50
Vinyl acetate	<100		50
Vinyl chloride	<50		100
Xylenes, Total	<100		50
			100

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		70 - 130
Dibromofluoromethane	100		70 - 130
Toluene-d8 (Sur)	104		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW22-12032010

Lab Sample ID: 680-63727-6

Client Matrix: Water

Date Sampled: 12/03/2010 1300  
Date Received: 12/04/2010 1023**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0576.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1601			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1601				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<25		25
Acetonitrile	<40		40
Acrolein	<20		20
Acrylonitrile	<20		20
Benzene	6.3		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	2.3		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
Chlorethane	<1.0		1.0
Chloroform	<1.0		1.0
Chloromethane	1.3		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		1.0
Dichlorodifluoromethane	<1.0		2.0
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		1.0
Iodomethane	<5.0		10
Isobutyl alcohol	<40		5.0
Methacrylonitrile	<20		40
Methylene Chloride	<5.0		20
Methyl methacrylate	<1.0		5.0
4-Methyl-2-pentanone (MIBK)	<10		1.0
Pentachloroethane	<5.0		10
Propionitrile	<20		5.0
Styrene	<1.0		20
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: 680-63727-1

Client Sample ID: ASH-MW22-12032010

Lab Sample ID: 680-63727-6

Client Matrix: Water

Date Sampled: 12/03/2010 1300

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0576.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1601			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1601				

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		1.0
Vinyl chloride	<1.0		2.0
Xylenes, Total	<2.0		1.0
			2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8 (Surf)	101		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW23-12032010

Lab Sample ID: 680-63727-7

Client Matrix: Water

Date Sampled: 12/03/2010 1220  
Date Received: 12/04/2010 1023**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0578.d
Dilution:	100			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1629			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1629				

Analyte	Result (ug/L)	Qualifier	RL
Acetone	<2500		2500
Acetonitrile	<4000		4000
Acrolein	<2000		2000
Acrylonitrile	<2000		2000
Benzene	7600		100
Dichlorobromomethane	<100		100
Bromoform	<100		100
Bromomethane	<100		100
2-Butanone (MEK)	<1000		100
Carbon disulfide	360		1000
Carbon tetrachloride	<100		200
Chlorobenzene	<100		100
2-Chloro-1,3-butadiene	<100		100
Chloroethane	<100		100
Chloroform	2900		100
Chloromethane	<100		100
3-Chloro-1-propene	<100		100
Chlorodibromomethane	<100		100
1,2-Dibromo-3-Chloropropane	<100		100
Ethylene Dibromide	<100		100
Dibromomethane	<100		100
trans-1,4-Dichloro-2-butene	<200		100
Dichlorodifluoromethane	<100		200
1,1-Dichloroethane	<100		100
1,2-Dichloroethane	<100		100
cis-1,2-Dichloroethene	<100		100
trans-1,2-Dichloroethene	<100		100
1,1-Dichloroethene	<100		100
1,2-Dichloropropane	<100		100
cis-1,3-Dichloropropene	<100		100
trans-1,3-Dichloropropene	<100		100
Ethylbenzene	<100		100
Ethyl methacrylate	<100		100
2-Hexanone	<1000		100
Iodomethane	<500		1000
Isobutyl alcohol	<4000		500
Methacrylonitrile	<2000		4000
Methylene Chloride	<500		2000
Methyl methacrylate	<100		500
4-Methyl-2-pentanone (MIBK)	<1000		100
Pentachloroethane	<500		1000
Propionitrile	<2000		500
Styrene	<100		2000
1,1,1,2-Tetrachloroethane	<100		100
1,1,2,2-Tetrachloroethane	<100		100
Tetrachloroethene	<100		100

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-MW23-12032010

Lab Sample ID: 680-63727-7

Client Matrix: Water

Date Sampled: 12/03/2010 1220

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0578.d
Dilution:	100			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1629			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1629				

Analyte	Result (ug/L)	Qualifier	RL
Toluene	1400		100
1,1,1-Trichloroethane	<100		100
1,1,2-Trichloroethane	<100		100
Trichloroethene	<100		100
Trichlorofluoromethane	<100		100
1,2,3-Trichloropropane	<100		100
Vinyl acetate	<200		100
Vinyl chloride	<100		200
Xylenes, Total	<200		100
			200
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8 (Surf)	103		70 - 130

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63727-1

Client Sample ID: ASH-FD3-12032010

Lab Sample ID: 680-63727-8FD  
Client Matrix: WaterDate Sampled: 12/03/2010 0000  
Date Received: 12/04/2010 1023**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	00590.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1920			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1920				

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	20		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: 680-63727-1

Client Sample ID: ASH-FD3-12032010

Lab Sample ID: 680-63727-8FD

Date Sampled: 12/03/2010 0000

Client Matrix: Water

Date Received: 12/04/2010 1023

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-188607	Instrument ID:	MSO2
Preparation:	5030B			Lab File ID:	o0590.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1920			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1920				

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
Trichloroethylene	<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	91		70 - 130
Dibromofluoromethane	96		70 - 130
Toluene-d8 (Surr)	98		70 - 130

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:680-188461</b>					
LCS 680-188461/6	Lab Control Sample	T	Water	8260B	
LCSD 680-188461/7	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-188461/9	Method Blank	T	Water	8260B	
680-63727-4	ASH-MW20-12032010	T	Water	8260B	
680-63727-5	ASH-MW21-12032010	T	Water	8260B	
<b>Analysis Batch:680-188463</b>					
LCS 680-188463/8	Lab Control Sample	T	Water	8260B	
LCSD 680-188463/9	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-188463/11	Method Blank	T	Water	8260B	
680-63727-2RB	ASH-RS4-12032010	T	Water	8260B	
680-63727-3	ASH-MW18-12032010	T	Water	8260B	
<b>Analysis Batch:680-188607</b>					
LCS 680-188607/8	Lab Control Sample	T	Water	8260B	
LCSD 680-188607/9	Lab Control Sample Duplicate	T	Water	8260B	
MB 680-188607/11	Method Blank	T	Water	8260B	
680-63727-1	ASH-MW17-12032010	T	Water	8260B	
680-63727-6	ASH-MW22-12032010	T	Water	8260B	
680-63727-7	ASH-MW23-12032010	T	Water	8260B	
680-63727-8FD	ASH-FD3-12032010	T	Water	8260B	

#### Report Basis

T = Total

**Quality Control Results**

Client: Ashland Inc.

Job Number: 680-63727-1

**Surrogate Recovery Report****8260B Volatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	BFB %Rec	DBFM %Rec	TOL %Rec
680-63727-1	ASH-MW17-1203201 0	94	97	106
680-63727-2	ASH-RS4-12032010	96	94	109
680-63727-3	ASH-MW18-1203201 0	94	95	108
680-63727-4	ASH-MW20-1203201 0	94	101	104
680-63727-5	ASH-MW21-1203201 0	94	100	104
680-63727-6	ASH-MW22-1203201 0	98	103	101
680-63727-7	ASH-MW23-1203201 0	94	97	103
680-63727-8	ASH-FD3-12032010	91	96	98
MB 680-188461/9		94	101	103
MB 680-188463/11		96	98	104
MB 680-188607/11		91	102	100
LCS 680-188461/6		101	104	103
LCS 680-188463/8		99	105	103
LCS 680-188607/8		103	110	102
LCSD 680-188461/7		106	105	110
LCSD 680-188463/9		103	105	103
LCSD 680-188607/9		101	112	104

Surrogate	Acceptance Limits
BFB = 4-Bromofluorobenzene	70-130
DBFM = Dibromofluoromethane	70-130
TOL = Toluene-d8 (Surr)	70-130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Method Blank - Batch: 680-188461

Lab Sample ID: MB 680-188461/9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/09/2010 1258  
Date Prepared: 12/09/2010 1258

Analysis Batch: 680-188461  
Prep Batch: N/A  
Units: ug/L

Method: 8260B  
Preparation: 5030B

Instrument ID: MSO2  
Lab File ID: cq320.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	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-Dichloropropene	<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

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Method Blank - Batch: 680-188461

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 680-188461/9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/09/2010 1258  
Date Prepared: 12/09/2010 1258

Analysis Batch: 680-188461  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq320.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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	Acceptance Limits
4-Bromofluorobenzene	94	70 - 130
Dibromofluoromethane	101	70 - 130
Toluene-d8 (Sur)	103	70 - 130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-188461**

**Method: 8260B  
Preparation: 5030B**

LCS Lab Sample ID:	LCS 680-188461/6	Analysis Batch:	680-188461	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq312.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1100			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1100				

LCSD Lab Sample ID:	LCSD 680-188461/7	Analysis Batch:	680-188461	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq314.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1129			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1129				

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	95	115	26 - 180	19	50		
Benzene	104	105	70 - 130	0	30		
Dichlorobromomethane	100	99	70 - 130	1	30		
Bromoform	88	88	70 - 130	1	30		
Bromomethane	81	106	23 - 165	27	50		
2-Butanone (MEK)	108	116	49 - 172	7	30		
Carbon disulfide	99	114	54 - 132	14	30		
Carbon tetrachloride	85	85	70 - 130	0	30		
Chlorobenzene	103	105	70 - 130	2	30		
Chloroethane	109	137	56 - 152	22	40		
Chloroform	106	104	70 - 130	1	30		
Chloromethane	102	125	70 - 130	20	30		
Chlorodibromomethane	96	90	70 - 130	6	50		
1,2-Dibromo-3-Chloropropane	95	109	70 - 130	14	50		
Ethylene Dibromide	100	106	70 - 130	6	30		
Dibromomethane	96	100	70 - 130	5	30		
Dichlorodifluoromethane	101	116	44 - 146	14	50		
1,1-Dichloroethane	104	105	70 - 130	1	30		
1,2-Dichloroethane	94	95	70 - 130	1	30		
cis-1,2-Dichloroethene	104	101	70 - 130	2	30		
trans-1,2-Dichloroethene	106	101	70 - 130	5	30		
1,1-Dichloroethene	105	104	66 - 131	1	30		
1,2-Dichloropropane	105	102	70 - 130	3	30		
cis-1,3-Dichloropropene	102	102	70 - 130	0	30		
trans-1,3-Dichloropropene	100	104	70 - 130	4	50		
Ethylbenzene	106	108	70 - 130	1	30		
2-Hexanone	105	108	42 - 185	3	30		
Methylene Chloride	98	115	67 - 130	16	30		
4-Methyl-2-pentanone (MIBK)	98	108	70 - 130	9	30		
Styrene	107	112	70 - 130	4	30		
1,1,1,2-Tetrachloroethane	93	90	70 - 130	3	30		
1,1,2,2-Tetrachloroethane	102	110	70 - 130	7	30		
Tetrachloroethene	108	100	70 - 130	8	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-188461

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-188461/6	Analysis Batch:	680-188461	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq312.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1100			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1100				

LCSD Lab Sample ID:	LCSD 680-188461/7	Analysis Batch:	680-188461	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq314.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 1129			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 1129				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Toluene	104	111	70 - 130	7	30	
1,1,1-Trichloroethane	98	97	70 - 130	1	30	
1,1,2-Trichloroethane	103	108	70 - 130	5	30	
Trichloroethene	102	100	70 - 130	2	30	
Trichlorofluoromethane	91	98	55 - 156	7	30	
1,2,3-Trichloropropane	105	110	70 - 130	4	30	
Vinyl acetate	105	101	60 - 176	4	30	
Vinyl chloride	109	127	67 - 134	15	30	
Xylenes, Total	106	109	70 - 130	3	30	
Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits			
4-Bromofluorobenzene	101	106	70 - 130			
Dibromofluoromethane	104	105	70 - 130			
Toluene-d8 (Surf)	103	110	70 - 130			

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Method Blank - Batch: 680-188463

Lab Sample ID: MB 680-188463/11  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/09/2010 1143  
Date Prepared: 12/09/2010 1143

Analysis Batch: 680-188463  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: MSO  
Lab File ID: oq315.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	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-Dichloropropene	<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

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Method Blank - Batch: 680-188463

Lab Sample ID: MB 680-188463/11  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/09/2010 1143  
Date Prepared: 12/09/2010 1143

Analysis Batch: 680-188463  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: MSO  
Lab File ID: oq315.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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	Acceptance Limits	
4-Bromofluorobenzene	96	70 - 130	
Dibromofluoromethane	98	70 - 130	
Toluene-d8 (Surr)	104	70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Lab Control Sample/

### Lab Control Sample Duplicate Recovery Report - Batch: 680-188463

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-188463/8	Analysis Batch:	680-188463	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq307.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0928			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0928				

LCSD Lab Sample ID:	LCSD 680-188463/9	Analysis Batch:	680-188463	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq309.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0956			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0956				

Analyte	LCS	LCSD	% Rec.	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	102	101	26 - 180	1	50			
Benzene	106	107	70 - 130	1	30			
Dichlorobromomethane	101	101	70 - 130	1	30			
Bromoform	86	90	70 - 130	4	30			
Bromomethane	117	127	23 - 165	8	50			
2-Butanone (MEK)	112	110	49 - 172	2	30			
Carbon disulfide	105	106	54 - 132	0	30			
Carbon tetrachloride	84	88	70 - 130	4	30			
Chlorobenzene	105	106	70 - 130	1	30			
Chloroethane	91	107	56 - 152	16	40			
Chloroform	108	109	70 - 130	1	30			
Chloromethane	107	108	70 - 130	1	30			
Chlorodibromomethane	98	102	70 - 130	4	50			
1,2-Dibromo-3-Chloropropane	105	111	70 - 130	6	50			
Ethylene Dibromide	106	107	70 - 130	2	30			
Dibromomethane	103	101	70 - 130	2	30			
Dichlorodifluoromethane	100	103	44 - 146	3	50			
1,1-Dichloroethane	110	110	70 - 130	0	30			
1,2-Dichloroethane	99	100	70 - 130	1	30			
cis-1,2-Dichloroethene	110	108	70 - 130	2	30			
trans-1,2-Dichloroethene	107	107	70 - 130	0	30			
1,1-Dichloroethene	103	103	66 - 131	0	30			
1,2-Dichloropropane	102	106	70 - 130	4	30			
cis-1,3-Dichloropropene	102	103	70 - 130	1	30			
trans-1,3-Dichloropropene	102	101	70 - 130	0	50			
Ethylbenzene	102	104	70 - 130	2	30			
2-Hexanone	104	106	42 - 185	2	30			
Methylene Chloride	105	106	67 - 130	1	30			
4-Methyl-2-pentanone (MIBK)	106	106	70 - 130	1	30			
Styrene	101	102	70 - 130	1	30			
1,1,1,2-Tetrachloroethane	95	98	70 - 130	3	30			
1,1,2,2-Tetrachloroethane	105	109	70 - 130	3	30			
Tetrachloroethene	101	104	70 - 130	3	30			

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-188463

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-188463/8	Analysis Batch:	680-188463	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq307.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0928			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0928				

LCSD Lab Sample ID:	LCSD 680-188463/9	Analysis Batch:	680-188463	Instrument ID:	MSO
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq309.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/09/2010 0956			Final Weight/Volume:	5 mL
Date Prepared:	12/09/2010 0956				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Toluene	102	101	70 - 130	0	30	
1,1,1-Trichloroethane	99	100	70 - 130	1	30	
1,1,2-Trichloroethane	103	105	70 - 130	1	30	
Trichloroethene	101	102	70 - 130	1	30	
Trichlorofluoromethane	91	96	55 - 156	6	30	
1,2,3-Trichloropropane	107	112	70 - 130	4	30	
Vinyl acetate	108	110	60 - 176	2	30	
Vinyl chloride	104	104	67 - 134	0	30	
Xylenes, Total	102	105	70 - 130	3	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
4-Bromofluorobenzene	99		103		70 - 130	
Dibromofluoromethane	105		105		70 - 130	
Toluene-d8 (Surr)	103		103		70 - 130	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Method Blank - Batch: 680-188607

Lab Sample ID: MB 680-188607/11  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2010 1213  
Date Prepared: 12/10/2010 1213

Analysis Batch: 680-188607  
Prep Batch: N/A  
Units: ug/L

**Method: 8260B**  
**Preparation: 5030B**

Instrument ID: MSO2  
Lab File ID: 09338.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	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-Dichloropropene	<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

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

**Method Blank - Batch: 680-188607**

**Method: 8260B**

**Preparation: 5030B**

Lab Sample ID: MB 680-188607/11  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2010 1213  
Date Prepared: 12/10/2010 1213

Analysis Batch: 680-188607  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq338.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
Tetrachloroethene	<1.0		1.0
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	Acceptance Limits
4-Bromofluorobenzene	91	70 - 130
Dibromofluoromethane	102	70 - 130
Toluene-d8 (Surf)	100	70 - 130

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-188607

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 680-188607/8  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2010 1012  
Date Prepared: 12/10/2010 1012

Analysis Batch: 680-188607  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq330.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 680-188607/9  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/10/2010 1047  
Date Prepared: 12/10/2010 1047

Analysis Batch: 680-188607  
Prep Batch: N/A  
Units: ug/L

Instrument ID: MSO2  
Lab File ID: oq332.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acetone	101	98	26 - 180	4	50		
Benzene	107	103	70 - 130	4	30		
Dichlorobromomethane	101	98	70 - 130	2	30		
Bromoform	92	87	70 - 130	5	30		
Bromomethane	80	89	23 - 165	10	50		
2-Butanone (MEK)	108	101	49 - 172	6	30		
Carbon disulfide	104	109	54 - 132	5	30		
Carbon tetrachloride	90	88	70 - 130	3	30		
Chlorobenzene	105	104	70 - 130	1	30		
Chloroethane	108	114	56 - 152	6	40		
Chloroform	111	108	70 - 130	3	30		
Chloromethane	98	105	70 - 130	6	30		
Chlorodibromomethane	101	93	70 - 130	8	50		
1,2-Dibromo-3-Chloropropane	98	95	70 - 130	3	50		
Ethylene Dibromide	102	96	70 - 130	5	30		
Dibromomethane	100	96	70 - 130	4	30		
Dichlorodifluoromethane	96	101	44 - 146	5	50		
1,1-Dichloroethane	112	111	70 - 130	1	30		
1,2-Dichloroethane	96	92	70 - 130	4	30		
cis-1,2-Dichloroethene	110	108	70 - 130	2	30		
trans-1,2-Dichloroethene	109	110	70 - 130	1	30		
1,1-Dichloroethene	111	109	66 - 131	2	30		
1,2-Dichloropropane	107	104	70 - 130	3	30		
cis-1,3-Dichloropropene	104	98	70 - 130	7	30		
trans-1,3-Dichloropropene	103	96	70 - 130	7	50		
Ethylbenzene	108	107	70 - 130	0	30		
2-Hexanone	107	99	42 - 185	8	30		
Methylene Chloride	103	108	67 - 130	5	30		
4-Methyl-2-pentanone (MIBK)	99	94	70 - 130	5	30		
Styrene	110	107	70 - 130	3	30		
1,1,1,2-Tetrachloroethane	97	92	70 - 130	5	30		
1,1,2,2-Tetrachloroethane	105	99	70 - 130	6	30		
Tetrachloroethene	111	107	70 - 130	4	30		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63727-1

### Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 680-188607

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID:	LCS 680-188607/8	Analysis Batch:	680-188607	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq330.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1012			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1012				

LCSD Lab Sample ID:	LCSD 680-188607/9	Analysis Batch:	680-188607	Instrument ID:	MSO2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	oq332.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	5 mL
Date Analyzed:	12/10/2010 1047			Final Weight/Volume:	5 mL
Date Prepared:	12/10/2010 1047				

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Toluene	103	102	70 - 130	1	30		
1,1,1-Trichloroethane	103	99	70 - 130	4	30		
1,1,2-Trichloroethane	104	100	70 - 130	4	30		
Trichloroethene	104	99	70 - 130	5	30		
Trichlorofluoromethane	99	100	55 - 156	1	30		
1,2,3-Trichloropropane	106	101	70 - 130	4	30		
Vinyl acetate	104	101	60 - 176	3	30		
Vinyl chloride	106	111	67 - 134	4	30		
Xylenes, Total	108	107	70 - 130	1	30		
Surrogate		LCS % Rec	LCSD % Rec	Acceptance Limits			
4-Bromofluorobenzene	103	101		70 - 130			
Dibromofluoromethane	110	112		70 - 130			
Toluene-d8 (Sur)	102	104		70 - 130			

Serial Number 032784

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD				<input checked="" type="checkbox"/> TestAmerica Savannah 5102 LaRoche Avenue Savannah, GA 31404				Website: www.testamericaninc.com Phone: (912) 354-7858 Fax: (912) 352-0165							
<b>TestAmerica</b> <small>THE LEADER IN ENVIRONMENTAL TESTING</small>				<input type="checkbox"/> Alternate Laboratory Name/Location				Phone: Fax:							
PROJECT REFERENCE		PROJECT NO.	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS						PAGE	OF			
TAL (LAB) PROJECT MANAGER Lidia Gwizic		P.O. NUMBER	CONTRACT NO.									STANDARD REPORT DELIVERY			
CLIENT (SITE) PM Tim Hassett		CLIENT PHONE 251-342-0700	CLIENT FAX									DATE DUE _____			
CLIENT NAME Ashland Chemical		CLIENT E-MAIL caleb.dane@ecosystemsinc.com										EXPEDITED REPORT DELIVERY (SURCHARGE)			
CLIENT ADDRESS 500 Hercules Rd, Wilmington, DE 19808												DATE DUE _____			
COMPANY CONTRACTING THIS WORK (if applicable)															
SAMPLE		SAMPLE IDENTIFICATION		COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER) SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	PRESERVATIVE						NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
DATE	TIME			G											
12-03-2010	0955	ASH - MW17 - 12032010		G				3							
12-03-2010	1005	ASH - RS4 - 12032010		G				3							
12-03-2010	1040	ASH - MW18 - 12032010		G				3							
12-03-2010	1115	ASH - MW20 - 12032010		G				3							
12-03-2010	1155	ASH - MW21 - 12032010		G				3							
12-03-2010	1300	ASH - MW22 - 12032010		G				3							
12-03-2010	1220	ASH - MW23 - 12032010		G				3							
12-03-2010	—	ASH - FD3 - 12032010		G				3							
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)				DATE	TIME	RELINQUISHED BY: (SIGNATURE)			DATE	TIME	
<i>K. Smith</i>		12-03-2010	1340												
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)				DATE	TIME	RECEIVED BY: (SIGNATURE)			DATE	TIME	
<i>FedEx Airbill 856051849925</i>															
LABORATORY USE ONLY															
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY INTACT YES <input type="radio"/> NO <input checked="" type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO.	LABORATORY REMARKS								
<i>B. Smith</i>		12-04-10	1023	YES <input type="radio"/>		80- 407	Temp 50								

## Login Sample Receipt Check List

Client: Ashland Inc.

Job Number: 680-63727-1

Login Number: 63727  
Creator: Daughtry, Beth  
List Number: 1

List Source: TestAmerica Savannah

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.0 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	Ms/MSD not requested (no additional volume provided).
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 680-63734-1

Job Description: Hattiesburg Carbon Filter MW08 12/2/10

For:

Ashland Inc.  
500 Hercules Road  
Wilmington, DE 19894

Attention: Timothy Hassett



Approved for release.  
Lidya Gulizia  
Project Manager I  
12/17/2010 4:46 PM

Lidya Gulizia  
Project Manager I  
[lidya.gulizia@testamericainc.com](mailto:lidya.gulizia@testamericainc.com)  
12/17/2010

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 DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**Job Narrative**  
**680-63734-1**

**Receipt**

All samples were received in good condition within temperature requirements.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**Comments**

No additional comments.

## METHOD SUMMARY

Client: Ashland Inc.

Job Number: 680-63734-1

Description	Lab Location	Method	Preparation Method
<b>Matrix Solid</b>			
Metals (ICP)	TAL SAV	SW846 6010B	
Preparation, Metals	TAL SAV		SW846 3050B
Mercury (CVAA)	TAL SAV	SW846 7471A	
Preparation, Mercury	TAL SAV		SW846 7471A
<b>Matrix Waste</b>			
Metals (ICP)	TAL SAV	SW846 6010B	
Preparation, Metals	TAL SAV		SW846 3050B
Mercury (CVAA)	TAL SAV	SW846 7471A	
Preparation, Mercury	TAL SAV		SW846 7471A
Ignitability, Pensky-Martens Closed-Cup Method	TAL SAV	SW846 1010	
pH	TAL SAV	SW846 9045C	

### 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: 680-63734-1

Method	Analyst	Analyst ID
SW846 6010B	Bland, Brian	BCB
SW846 7471A	Vasquez, Juana	JV
SW846 1010	Jackson, Michelle S	MSJ
SW846 9045C	Robinson, Tiffany	TR

## SAMPLE SUMMARY

Client: Ashland Inc.

Job Number: 680-63734-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-63734-1	ASH-MW08-CF-12022010	Solid	12/02/2010 1420	12/04/2010 1023
680-63734-2	ASH-MW08-CF-12022010	Waste	12/02/2010 1435	12/04/2010 1023

## **SAMPLE RESULTS**

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63734-1

Client Sample ID: ASH-MW08-CF-12022010

Lab Sample ID: 680-63734-1

Date Sampled: 12/02/2010 1420

Client Matrix: Solid

Date Received: 12/04/2010 1023

**6010B Metals (ICP)**

Method:	6010B	Analysis Batch: 680-188613	Instrument ID:	ICPD
Preparation:	3050B	Prep Batch: 680-188073	Lab File ID:	120910104750.chr
Dilution:	1.0		Initial Weight/Volume:	1.09 g
Date Analyzed:	12/10/2010 1047		Final Weight/Volume:	100 mL
Date Prepared:	12/06/2010 1457			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		34		1.8
Barium		40		0.92
Cadmium		<0.46		0.46
Lead		1.9		0.92
Selenium		<2.3		2.3
Silver		<0.92		0.92

Method:	6010B	Analysis Batch: 680-189108	Instrument ID:	ICPD
Preparation:	3050B	Prep Batch: 680-188734	Lab File ID:	12141015195.chr
Dilution:	1.0		Initial Weight/Volume:	1.08 g
Date Analyzed:	12/15/2010 0738		Final Weight/Volume:	100 mL
Date Prepared:	12/13/2010 1003			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Chromium		4.0		0.93

**7471A Mercury (CVAA)**

Method:	7471A	Analysis Batch: 680-189039	Instrument ID:	LEEMAN1
Preparation:	7471A	Prep Batch: 680-188335	Lab File ID:	b121410a.chr
Dilution:	1.0		Initial Weight/Volume:	0.51 g
Date Analyzed:	12/14/2010 1534		Final Weight/Volume:	50 mL
Date Prepared:	12/08/2010 1405			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		<0.020		0.020

## Analytical Data

Client: Ashland Inc.

Job Number: 680-63734-1

Client Sample ID: ASH-MW08-CF-12022010

Lab Sample ID: 680-63734-2

Date Sampled: 12/02/2010 1435

Client Matrix: Waste

Date Received: 12/04/2010 1023

### 6010B Metals (ICP)

Method:	6010B	Analysis Batch: 680-188613	Instrument ID:	ICPD
Preparation:	3050B	Prep Batch: 680-188402	Lab File ID:	120910104750.chr
Dilution:	1.0		Initial Weight/Volume:	1.01 g
Date Analyzed:	12/10/2010 1117		Final Weight/Volume:	100 mL
Date Prepared:	12/09/2010 0841			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		<2.0		2.0
Barium		<0.99		0.99
Cadmium		<0.50		0.50
Chromium		<0.99		0.99
Lead		<0.99		0.99
Selenium		<2.5		2.5
Silver		<0.99		0.99

### 7471A Mercury (CVAA)

Method:	7471A	Analysis Batch: 680-189039	Instrument ID:	LEEMAN1
Preparation:	7471A	Prep Batch: 680-188335	Lab File ID:	b121410a.chr
Dilution:	1.0		Initial Weight/Volume:	0.52 g
Date Analyzed:	12/14/2010 1537		Final Weight/Volume:	50 mL
Date Prepared:	12/08/2010 1405			

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Mercury		<0.019		0.019

**Analytical Data**

Client: Ashland Inc.

Job Number: 680-63734-1

**General Chemistry**

Client Sample ID: ASH-MW08-CF-12022010

Lab Sample ID: 680-63734-2

Date Sampled: 12/02/2010 1435

Client Matrix: Waste

Date Received: 12/04/2010 1023

Analyte	Result	Qual	Units	Dil	Method
Flashpoint	>140		Degrees F	1.0	1010
	Analysis Batch: 680-189278	Date Analyzed:	12/16/2010 1230		DryWt Corrected: N
pH	7.49	SU		1.0	9045C
	Analysis Batch: 680-188108	Date Analyzed:	12/06/2010 1649		DryWt Corrected: N

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 680-188073</b>					
LCS 680-188073/10-A	Lab Control Sample	T	Solid	3050B	
MB 680-188073/9-A	Method Blank	T	Solid	3050B	
680-63734-1	ASH-MW08-CF-12022010	T	Solid	3050B	
<b>Prep Batch: 680-188335</b>					
MB 680-188335/1-A	Method Blank	T	Solid	7471A	
LCS 680-188335/2-A	Lab Control Sample	T	Waste	7471A	
680-63734-1	ASH-MW08-CF-12022010	T	Solid	7471A	
680-63734-2	ASH-MW08-CF-12022010	T	Waste	7471A	
<b>Prep Batch: 680-188402</b>					
LCS 680-188402/7-A	Lab Control Sample	T	Waste	3050B	
MB 680-188402/6-A	Method Blank	T	Waste	3050B	
680-63734-2	ASH-MW08-CF-12022010	T	Waste	3050B	
<b>Analysis Batch:680-188613</b>					
LCS 680-188073/10-A	Lab Control Sample	T	Solid	6010B	680-188073
MB 680-188073/9-A	Method Blank	T	Solid	6010B	680-188073
LCS 680-188402/7-A	Lab Control Sample	T	Waste	6010B	680-188402
MB 680-188402/6-A	Method Blank	T	Waste	6010B	680-188402
680-63734-1	ASH-MW08-CF-12022010	T	Solid	6010B	680-188073
680-63734-2	ASH-MW08-CF-12022010	T	Waste	6010B	680-188402
<b>Prep Batch: 680-188734</b>					
LCS 680-188734/24-A	Lab Control Sample	T	Solid	3050B	
MB 680-188734/23-A	Method Blank	T	Solid	3050B	
680-63734-1	ASH-MW08-CF-12022010	T	Solid	3050B	
<b>Analysis Batch:680-189039</b>					
MB 680-188335/1-A	Method Blank	T	Solid	7471A	680-188335
LCS 680-188335/2-A	Lab Control Sample	T	Waste	7471A	680-188335
680-63734-1	ASH-MW08-CF-12022010	T	Solid	7471A	680-188335
680-63734-2	ASH-MW08-CF-12022010	T	Waste	7471A	680-188335
<b>Analysis Batch:680-189108</b>					
LCS 680-188734/24-A	Lab Control Sample	T	Solid	6010B	680-188734
MB 680-188734/23-A	Method Blank	T	Solid	6010B	680-188734
680-63734-1	ASH-MW08-CF-12022010	T	Solid	6010B	680-188734

**Report Basis**

T = Total

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>General Chemistry</b>					
<b>Analysis Batch:680-188108</b>					
LCS 680-188108/1	Lab Control Sample	T	Waste	9045C	
680-63734-2	ASH-MW08-CF-12022010	T	Waste	9045C	
680-63734-2DU	Duplicate	T	Waste	9045C	
<b>Analysis Batch:680-189278</b>					
LCS 680-189278/2	Lab Control Sample	T	Waste	1010	
MB 680-189278/1	Method Blank	T	Waste	1010	
680-63734-2	ASH-MW08-CF-12022010	T	Waste	1010	
680-63734-2DU	Duplicate	T	Waste	1010	

#### Report Basis

T = Total

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### Method Blank - Batch: 680-188073

Lab Sample ID: MB 680-188073/9-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/10/2010 0941  
Date Prepared: 12/06/2010 1457

Analysis Batch: 680-188613  
Prep Batch: 680-188073  
Units: mg/Kg

**Method: 6010B**  
**Preparation: 3050B**

Instrument ID: ICPD  
Lab File ID: 120910104750.chr  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Arsenic	<2.0		2.0
Barium	<1.0		1.0
Cadmium	<0.50		0.50
Lead	<1.0		1.0
Selenium	<2.5		2.5
Silver	<1.0		1.0

### Lab Control Sample - Batch: 680-188073

**Method: 6010B**  
**Preparation: 3050B**

Lab Sample ID: LCS 680-188073/10-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/10/2010 0946  
Date Prepared: 12/06/2010 1457

Analysis Batch: 680-188613  
Prep Batch: 680-188073  
Units: mg/Kg

Instrument ID: ICPD  
Lab File ID: 120910104750.chr  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	200	215	108	75 - 125	
Barium	200	207	103	75 - 125	
Cadmium	5.00	5.51	110	75 - 125	
Lead	50.0	54.5	109	75 - 125	
Selenium	200	216	108	75 - 125	
Silver	5.00	5.38	108	75 - 125	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### Method Blank - Batch: 680-188402

Method: 6010B

Preparation: 3050B

Lab Sample ID: MB 680-188402/6-A  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/10/2010 1106  
Date Prepared: 12/09/2010 0841

Analysis Batch: 680-188613  
Prep Batch: 680-188402  
Units: mg/Kg

Instrument ID: ICPD  
Lab File ID: 120910104750.chr  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 100 mL

### Analyte

### Result

### Qual

### RL

Arsenic	<2.0		2.0
Barium	<1.0		1.0
Cadmium	<0.50		0.50
Chromium	<1.0		1.0
Lead	<1.0		1.0
Selenium	<2.5		2.5
Silver	<1.0		1.0

### Lab Control Sample - Batch: 680-188402

Method: 6010B

Preparation: 3050B

Lab Sample ID: LCS 680-188402/7-A  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/10/2010 1111  
Date Prepared: 12/09/2010 0841

Analysis Batch: 680-188613  
Prep Batch: 680-188402  
Units: mg/Kg

Instrument ID: ICPD  
Lab File ID: 120910104750.chr  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 100 mL

### Analyte

### Spike Amount

### Result

### % Rec.

### Limit

### Qual

Arsenic	200	219	110	75 - 125
Barium	200	214	107	75 - 125
Cadmium	5.00	5.81	116	75 - 125
Chromium	20.0	22.5	113	75 - 125
Lead	50.0	55.9	112	75 - 125
Selenium	200	221	111	75 - 125
Silver	5.00	5.44	109	75 - 125

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### Method Blank - Batch: 680-188734

Lab Sample ID: MB 680-188734/23-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/15/2010 0516  
Date Prepared: 12/13/2010 1003

Analysis Batch: 680-189108  
Prep Batch: 680-188734  
Units: mg/Kg

**Method: 6010B**  
**Preparation: 3050B**

Instrument ID: ICPD  
Lab File ID: 12141015195.chr  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Arsenic	<2.0		2.0
Barium	<1.0		1.0
Cadmium	<0.50		0.50
Chromium	<1.0		1.0
Lead	<1.0		1.0
Selenium	<2.5		2.5
Silver	<1.0		1.0

### Lab Control Sample - Batch: 680-188734

Lab Sample ID: LCS 680-188734/24-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/15/2010 0521  
Date Prepared: 12/13/2010 1003

Analysis Batch: 680-189108  
Prep Batch: 680-188734  
Units: mg/Kg

**Method: 6010B**  
**Preparation: 3050B**

Instrument ID: ICPD  
Lab File ID: 12141015195.chr  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	200	205	102	75 - 125	
Barium	200	207	103	75 - 125	
Cadmium	5.00	5.09	102	75 - 125	
Chromium	20.0	21.2	106	75 - 125	
Lead	50.0	52.3	105	75 - 125	
Selenium	200	204	102	75 - 125	
Silver	5.00	5.19	104	75 - 125	

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### Method Blank - Batch: 680-188335

Lab Sample ID: MB 680-188335/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Date Analyzed: 12/14/2010 1348  
Date Prepared: 12/08/2010 1405

Analysis Batch: 680-189039  
Prep Batch: 680-188335  
Units: mg/Kg

### Method: 7471A Preparation: 7471A

Instrument ID: LEEMAN1  
Lab File ID: b121410a.chr  
Initial Weight/Volume: 0.50 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	<0.020		0.020

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### Method Blank - Batch: 680-189278

Method: 1010

Preparation: N/A

Lab Sample ID: MB 680-189278/1  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/16/2010 1230  
Date Prepared: N/A

Analysis Batch: 680-189278  
Prep Batch: N/A  
Units: Degrees F

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual
Flashpoint	>140	NONE

### Lab Control Sample - Batch: 680-189278

Method: 1010

Preparation: N/A

Lab Sample ID: LCS 680-189278/2  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/16/2010 1230  
Date Prepared: N/A

Analysis Batch: 680-189278  
Prep Batch: N/A  
Units: Degrees F

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Flashpoint	80.0	80.0	100	97.53 - 102.47	

### Duplicate - Batch: 680-189278

Method: 1010

Preparation: N/A

Lab Sample ID: 680-63734-2  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/16/2010 1230  
Date Prepared: N/A

Analysis Batch: 680-189278  
Prep Batch: N/A  
Units: Degrees F

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume:  
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Flashpoint	>140	>140	NC		

## Quality Control Results

Client: Ashland Inc.

Job Number: 680-63734-1

### Lab Control Sample - Batch: 680-188108

Method: 9045C

Preparation: N/A

Lab Sample ID: LCS 680-188108/1  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/06/2010 1649  
Date Prepared: N/A

Analysis Batch: 680-188108  
Prep Batch: N/A  
Units: SU

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 20 mL  
Final Weight/Volume: 20 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH	7.00	6.970	100	63 - 158	

### Duplicate - Batch: 680-188108

Method: 9045C

Preparation: N/A

Lab Sample ID: 680-63734-2  
Client Matrix: Waste  
Dilution: 1.0  
Date Analyzed: 12/06/2010 1649  
Date Prepared: N/A

Analysis Batch: 680-188108  
Prep Batch: N/A  
Units: SU

Instrument ID: No Equipment Assigned  
Lab File ID: N/A  
Initial Weight/Volume: 20 mL  
Final Weight/Volume: 20 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.49	7.520	0.4	40	

**Serial Number**

## Login Sample Receipt Check List

Client: Ashland Inc.

Job Number: 680-63734-1

Login Number: 63734  
Creator: Daughtry, Beth  
List Number: 1

List Source: TestAmerica Savannah

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8 C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW17-12032010</u> File #: <u>1012047-01</u>			Collected: <u>12/03/2010</u>	<u>0955</u>	Client	Date <u>12/06/2010</u> Analyst <u>VCT</u>			Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	3045			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	23.7			ND			8.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	4.2			ND			9.6	10.0	98	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene	*	25.1	10.00	251	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

\*High surrogate recovery due to interference

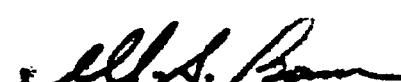
Certified by:

  
Michael S. Bonner, Ph.D  
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY  
 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-RS4-12032010</u> File #: <u>1012047-02</u>			Collected: <u>12/03/2010</u>	<u>1005</u>	Client				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spiked Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spiked Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	2.9			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.8	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		7.5	10.00	75	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

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**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW18-12032010</u> File #: <u>1012047-03</u>			Collected: <u>12/03/2010</u>	<u>1040</u>	Client Extracted: <u>12/06/2010</u>	<u>1300</u>	VCT	Sample Type: Water				
			Analyst Date		Analyst			Extraction Method: <u>SW846 3510C</u>				
								Analysis Method: <u>Modified SW846</u>				
COMPOUNDS		PQL ug/L (ppb)	SAMPLE	METHOD BLANK	Lab Control	MATRIX SPIKE						
			Detected Amount ug/L (ppb)	Spike Amount ug/L	Detected Amount ug/L (ppb)	Spike Amount ug/mL (ppm)	Detected Amount ug/mL (ppm)					
			% Recovery	% Recovery	Amount ug/L	% Recovery	Amount ug/mL	% Recovery				
Dioxenethion		0.400	ND		ND		8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)		0.400	2.6		ND		9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)		0.400	5.6		ND		9.6	10.0	96	7.8	10.0	78
SURROGATE COMPOUNDS			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	
Naphthalene			5.8	10.00	58	7.1	10.00	71	7.2	10.00	72	7.2

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**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW20-12032010</u> File #: <u>1012047-04</u>		Collected: <u>12/03/2010</u>	<u>1115</u>	Client									
		Extracted: <u>12/06/2010</u>	<u>1300</u>	VCT									
		Analyzed: <u>12/13/2010</u>	<u>2162</u>	DGA									
Date						Analyst							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE		METHOD BLANK			Lab Control			MATRIX SPIKE			
		Detected Amount ug/L (ppb)	Spike	Detected Amount ug/L (ppb)	Spike	Detected Amount ug/mL (ppm)	Spike	Detected Amount ug/mL (ppm)	Spike	Detected Amount ug/mL (ppm)	Spike	Detected Amount ug/mL (ppm)	% Recovery
Dioxenethion	0.400	3.4			ND		8.9	10.0	89	7.1	10.0	71	
Dioxathion (cis)	0.400	0.58			ND		9.9	10.0	99	8.8	10.0	88	
Dioxathion (trans)	0.400	6.1			ND		9.6	10.0	96	7.9	10.0	79	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	Detected Amount	Spiked Amount	% Recovery	
Naphthalene		4.7	10.00	47	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

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**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW21-12032010</u> File #: <u>1012047-05</u>			Collected: <u>12/03/2010</u>	<u>1155</u>	Client:				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	10.2			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cls)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		13.7	10.00	137	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

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 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW22-12032010</u> File #: <u>1012047-08</u>		Collected: <u>12/03/2010</u> 1300      Client Extracted: <u>12/06/2010</u> 1300      VCT Analyzed: <u>12/13/2010</u> 2240      DGA				Date      Analyst				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>			
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery
Dioxenethion	0.400	6.2			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		10.3	10.00	103	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

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**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW23-12032010</u> File #: <u>1012047-07</u>		Collected: <u>12/03/2010</u>	<u>1220</u>	Client			Sample Type: <u>Water</u>						
		Extracted: <u>12/06/2010</u>	<u>1300</u>	VCT			Extraction Method: <u>SW848 3510C</u>						
		Analyzed: <u>12/13/2010</u>	<u>2304</u>	DGA			Analysis Method: <u>Modified SW848</u>						
		Date		Analyst									
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control		MATRIX SPIKE			
		Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery
Dioxenethion	0.400	ND			ND		8.9	10.0	89	7.1	10.0	71	
Dioxathion (cis)	0.400	ND			ND		9.9	10.0	99	8.8	10.0	88	
Dioxathion (trans)	0.400	ND			ND		9.6	10.0	96	7.9	10.0	79	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene	*	42.9	10.00	429	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

\*High surrogate recovery due to interference

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**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <b>Ashland Chemical</b> Sample ID: <b>ASH-FD3-12032010</b> File #: <b>1012047-08</b>		Collected: <b>12/03/2010</b> Extracted: <b>12/08/2010</b> Analyzed: <b>12/13/2010</b>		Client VCT DGA		Date <b>Analyst:</b>		Sample Type: <b>Water</b> Extraction Method: <b>SW848 3510C</b> Analysis Method: <b>Modified SW846</b>				
<b>COMPOUNDS</b>	<b>PQL ug/L (ppb)</b>	<b>SAMPLE</b>		<b>METHOD BLANK</b>			<b>Lab Control</b>		<b>MATRIX SPIKE</b>			
		<b>Detected Amount ug/L (ppb)</b>	<b>Spike ug/L</b>	<b>Detected Amount ug/L (ppb)</b>	<b>Spike ug/L</b>	<b>Detected Amount ug/mL (ppm)</b>	<b>Spike ug/mL</b>	<b>Detected Amount ug/mL (ppm)</b>	<b>Spike ug/mL</b>	<b>Detected Amount ug/mL (ppm)</b>	<b>Spike ug/mL</b>	
Dioxenethion	0.400	1.9		ND		8.9	10.0	89	7.1	10.0	71	
Dioxathion (cis)	0.400	ND		ND		8.9	10.0	99	8.8	10.0	88	
Dioxathion (trans)	0.400	6.4		ND		9.6	10.0	96	7.9	10.0	79	
<b>SURROGATE COMPOUNDS</b>		<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>	<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>	<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>	<b>Detected Amount</b>	
Naphthalene		5.1	10.00	51	7.1	10.00	71	7.2	10.00	72	7.2	10.00

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YOUR COMPANY NAME: Ashland Chemical  
YOUR COMPANY ADDRESS: 500 Hercules Rd  
Hilmington, DE 19802

NAME OF PERSON TO CONTACT: Tim Hassett  
CONTACT PERSON'S PHONE: 205-342-0700 FAX: \_\_\_\_\_  
CONTACT PERSON'S EMAIL: caleb.dana (@ eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

## **BONNER ANALYTICAL TESTING COMPANY**

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

[WWW.BATCO.COM](http://WWW.BATCO.COM)

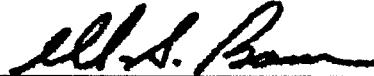


PARAMETERS FOR ANALYSIS						NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE	
								Turn Around Time	
								ST.	
								Project Number	
								1012047	
								File ID	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓						1	—	BT	
✓								BT	
✓								BT	
RELINQUISHED BY:						DATE	TIME	RECEIVED BY:	
DATE		TIME	RECEIVED FOR BATCO BY:				DATE/TIME		
<input type="checkbox"/> REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS <small>(Signature)</small> <small>IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL FEE OF \$30.00 PER SAMPLE WILL BE ASSESSED.</small>								REVISION NO 1.2 03/22/01	

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 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-FDI-12012010</u> File #: <u>1012024-01</u>				Collected: <u>12/01/2010</u>	Client Extracted: <u>12/02/2010</u> <u>1300</u> <u>VCT</u>	Date Analyzed: <u>12/14/2010</u> <u>1529</u> <u>DGA</u>	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>					
COMPOUNDS	PQL ug/L (ppb)	SAMPLE		METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L	Detected Amount ug/L (ppb)	Spike ug/L	Detected Amount ug/mL (ppm)	Spike ug/mL	Detected Amount ug/mL (ppm)	Spike ug/mL	Detected Amount ug/mL (ppm)	Spike ug/mL	% Recovery
Dioxenethion	0.400	16.5		ND		9.13	10.0	91	7.11	10.0	71	
Dioxathion (cis)	0.400	ND		ND		9.43	10.0	94	8.07	10.0	81	
Dioxathion (trans)	0.400	ND		ND		8.64	10.0	88	8.22	10.0	82	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	Detected Amount	Spiked Amount	% Recovery
Naphthalene		6.6	10.00	66	6.77	10.00	68	7.71	10.00	77	7.80	10.00

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**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW10-12012010</u> File #: <u>1012024-02</u>			Collected: <u>12/01/2010</u>	<u>1055</u>	Client:				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	ND			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		6.9	10.00	69	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW04-12012010</u> File #: <u>1012024-03</u>				Collected: <u>12/01/2010</u>	<u>1150</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE			
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery	
Dioxenethion	0.400	22.2			ND			9.13	10.0	91	7.11	10.0	71	
Dioxathion (cis)	0.400	ND			ND			9.43	10.0	94	8.07	10.0	81	
Dioxathion (trans)	0.400	ND			ND			8.84	10.0	88	8.22	10.0	82	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	
Naphthalene		6.2	10.00	62	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78	

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 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW11-12012010</u> File #: <u>1012024-04</u>			Collected: <u>12/01/2010</u>	<u>1230</u>	Client				Sample Type: Water					
			Extracted: <u>12/02/2010</u>	<u>1300</u>	VCT				Extraction Method: <u>SW846 3510C</u>					
			Analyzed: <u>12/14/2010</u>	<u>1641</u>	DGA				Analysis Method: <u>Modified SW846</u>					
COMPOUNDS	PQL ug/L (ppb)	SAMPLE	METHOD BLANK			Lab Control			MATRIX SPIKE					
		Spike	Detected Amount ug/L (ppb)	Amount ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Amount ug/L (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL (ppm)	% Recovery			
Dioxenethion	0.400	1.00				ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	ND				ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	ND				ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	
Naphthalene		4.4	10.00	44	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78	

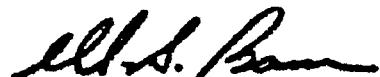
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**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-RS2-12012010</u> File #: <u>1012024-05</u>		Collected: <u>12/01/2010</u>	<u>1215</u>	Client					Sample Type: <u>Water</u>				
		Extracted: <u>12/02/2010</u>	<u>1300</u>	VCT					Extraction Method: <u>SW846 3510C</u>				
		Analyzed: <u>12/14/2010</u>	<u>1705</u>	DGA					Analysis Method: <u>Modified SW846</u>				
		Date		Analyst									
COMPOUNDS	PQL ug/L (ppb)	SAMPLE		METHOD BLANK		Lab Control			MATRIX SPIKE				
		Detected Amount ug/L (ppb)	Spike ug/L	Detected Amount ug/L (ppb)	Spike ug/L	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery		
Dioxenethion	0.400	ND		ND			9.13	10.0	91	7.11	10.0	71	
Dioxathion (cis)	0.400	ND		ND			9.43	10.0	94	8.07	10.0	81	
Dioxathion (trans)	0.400	ND		ND			8.84	10.0	88	6.22	10.0	82	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery			
Naphthalene		7.3	10.00	73	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW05-12012010</u> File #: <u>1012024-06</u>			Collected: <u>12/01/2010</u>	<u>1300</u>	Client				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
			Extracted: <u>12/02/2010</u>	<u>1300</u>	VCT								
			Analyzed: <u>12/14/2010</u>	<u>1728</u>	DGA								
			Date		Analyst								
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	0.74			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	0.56			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		4.8	10.00	48	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <b>Ashland Chemical</b> Sample ID: <b>ASH-MW12-12012010</b> File #: <b>1012024-07</b>			Collected: <b>12/01/2010</b>	<b>1415</b>	Client				Sample Type: <b>Water</b> Extraction Method: <b>SW846 3510C</b> Analysis Method: <b>Modified SW846</b>						
<b>COMPOUNDS</b>	<b>PQL ug/L (ppb)</b>	<b>SAMPLE</b>			<b>METHOD BLANK</b>			<b>Lab Control</b>			<b>MATRIX SPIKE</b>				
		<b>Detected Amount ug/L (ppb)</b>	<b>Spike</b>	<b>Amount ug/L</b>	<b>% Recovery</b>	<b>Detected Amount ug/L (ppb)</b>	<b>Spike</b>	<b>Amount ug/L</b>	<b>% Recovery</b>	<b>Detected Amount ug/mL (ppm)</b>	<b>Spike</b>	<b>Amount ug/mL</b>	<b>% Recovery</b>		
Dioxenethion	0.400	0.75				ND				9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	ND				ND				9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	ND				ND				8.84	10.0	86	8.22	10.0	82
<b>SURROGATE COMPOUNDS</b>		<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>	<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>	<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>	<b>Detected Amount</b>	<b>Spiked Amount</b>	<b>% Recovery</b>		
Naphthalene		7.0	10.00	70	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78		

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**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW06-12012010</u> File #: <u>1012024-08</u>			Collected: <u>12/01/2010</u>	<u>1400</u>	Client Extracted: <u>12/02/2010</u>	<u>1300</u>	VCT	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>					
			Analyzed: <u>12/14/2010</u>	<u>1817</u>	DGA	Date	Analyst						
COMPOUNDS	PQL ug/L (ppb)	SAMPLE	METHOD BLANK	Lab Control			MATRIX SPIKE						
		Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)				
		% Recovery	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery				
Dioxenethion	0.400	ND		ND		9.13	10.0	91	7.11	10.0	71		
Dioxathion (cis)	0.400	ND		ND		9.43	10.0	94	8.07	10.0	81		
Dioxathion (trans)	0.400	ND		ND		8.84	10.0	88	8.22	10.0	82		
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery			
Naphthalene		6.9	10.00	69	8.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW07-12012010</u> File #: <u>1012024-09</u>			Collected: <u>12/01/2010</u>	<u>1445</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spiked Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spiked Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spiked Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spiked Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	ND			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		5.1	10.00	51	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

Certified by:

  
Michael S. Bonner, Ph.D  
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY  
 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW24-12012010</u> File #: <u>1012024-10</u>			Collected: <u>12/01/2010</u>	<u>1625</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery
Dioxenethion	0.400	0.46			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	ND			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		6.0	10.00	60	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

Certified by:

  
 Michael S. Bonner, Ph.D.  
 BONNER ANALYTICAL TESTING COMPANY

YOUR COMPANY NAME: Ashland Chemical  
 YOUR COMPANY ADDRESS: 500 Hercules Rd.  
Newark, DE 19808

NAME OF PERSON TO CONTACT: Tim Hassett  
 CONTACT PERSON'S PHONE: 251-342-0700 FAX: \_\_\_\_\_  
 CONTACT PERSON'S EMAIL: caleb.dana@eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER
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SAMPLE DESCRIPTION		DATE	TIME	MATRIX	Dissolution 3510/6321 HPLC-PPA	NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE
1	ASH - MW16 - 12022010	12-02-2010	0950	GW				
2	ASH - MW15 - 12022010	12-02-2010	1030	GW	✓	1	-	BT
3	ASH - RS3 - 12022010	12-02-2010	1040	W	✓	1	-	BT
4	ASH - MW14 - 12022010	12-02-2010	1120	GW	✓	1	-	BT
5	ASH - MW13 - 12022010	12-02-2010	1200	GW	✓	1	-	BT
6	ASH - MW19 - 12022010	12-02-2010	1235	GW	✓	1	-	BT
7	ASH - FD2 - 12022010	12-02-2010	—	GW	✓	1	-	BT
8	ASH - MW09 - 12022010	12-02-2010	1335	GN	✓	1	-	BT
9	ASH - MW08 - 12022010	12-02-2010	1410	GW	✓	1	-	BT
10								BT

SAMPLE COLLECTOR/RELINQUISHED BY: <u>Chris Jewell</u> <u>Chris Jewell</u>	DATE 12-02-2010	TIME 1545	RECEIVED BY: <u>Sherry Roberts</u>
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METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:
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REMARKS:	<input type="checkbox"/> REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS  <input type="checkbox"/> SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL FEE OF \$30.00 PER SAMPLE WILL BE ASSESSED.	REVISION NO 1.2 03/22/04
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### BONNER ANALYTICAL TESTING COMPANY

2703 Oak Grove Road, Hattiesburg, MS 39402

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

WWW.BATCO.COM



**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW03-11302010</u> File #: <u>1011357-01</u>			Collected: <u>11/30/2010</u>	<u>1135</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		7.2	10.00	72	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

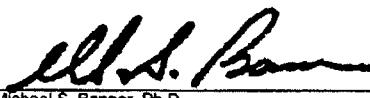
Certified by:

  
 Michael S. Bonner, Ph.D.  
 BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <b>Ashland Chemical</b> Sample ID: ASH-RS1-11302010 File #: 1011357-02			Collected: 11/30/2010	1125	Client	Sample Type: Water Extraction Method: SW846 3510C Analysis Method: Modified SW846							
			Extracted: 12/02/2010	0830	VCT								
			Analyzed: 12/13/2010	2033	DGA								
			Date		Analyst								
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L (ppb)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery
Dioxenethion	0.400	0.55			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		7.2	10.00	72	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

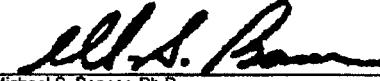
Certified by:

  
Michael S. Bonner, Ph.D.  
BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: ASH-MW02-11302010 File #: <u>1011357-03</u>			Collected: <u>11/30/2010</u>	<u>1222</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>					
COMPOUNDS	PQL ug/L (ppb)	SAMPLE		METHOD BLANK		Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L (ppb)	Detected Amount ug/L (ppb)	Spike ug/L (ppb)	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)
Dioxenethion	0.400	ND		ND		8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND		ND		9.8	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND		ND		9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	Detected Amount	Spiked Amount
Naphthalene		8.3	10.00	83	7.1	10.00	71	7.2	10.00	72	10.00

Certified by:

  
Michael S. Bonner, Ph.D.  
BONNER ANALYTICAL TESTING COMPANY

YOUR COMPANY NAME: Ashland Chemical  
 YOUR COMPANY ADDRESS: 500 Hercules Rd.  
Wilmington, DE 19808

NAME OF PERSON TO CONTACT: Tim Hassett  
 CONTACT PERSON'S PHONE: 251 - 342 - 0700 FAX:  
 CONTACT PERSON'S EMAIL: caleb.dana@eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER
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SAMPLE DESCRIPTION		DATE	TIME	MATRIX	Direct-House 3510/B321 HPLC-PDA	NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE
1	ASH - MW03 - 11302010	11-30-2010	1135	GW				
2	ASH - RS1 - 11302010	11-30-2010	1125	W	✓	1	—	BT
3	ASH - MW02 - 11302010 (MS/MSD)	11-30-2010	1222	GW	✓	3	—	BT
4								BT
5								BT
6								BT
7								BT
8								BT
9								BT
10								BT

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
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METHOD OF SHIPMENT (If Any)	RELINQUISHED BY:
-----------------------------	------------------

REMARKS:
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### BONNER ANALYTICAL TESTING COMPANY

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PARAMETERS FOR ANALYSIS			NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE
1011357	File ID				
RELINQUISHED BY:			DATE	TIME	RECEIVED BY:
RECEIVED FOR BATCO BY:			DATE/TIME		
<input type="checkbox"/> REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS <small>(Signature)</small> <small>If sample is determined to be hazardous, a minimum additional fee of \$30.00 per sample will be assessed.</small>					
REVISION NO 1.2 03/22/01					

BONNER ANALYTICAL TESTING COMPANY  
 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-CM05-11292010</u> File #: <u>1011344-01</u>			Collected: <u>11/29/2010</u>	<u>1445</u>	Client				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spike ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Spike ug/mL	% Recovery
Dioxenethion	0.400	1.9			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		6.9	10.00	89	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

Certified by:

  
 Michael S. Bonner, Ph.D.

BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-CM04-11292010</u> File #: <u>1011344-02</u>			Collected: <u>11/29/2010</u>	<u>1450</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846_3510C</u> Analysis Method: <u>Modified SW846</u>							
			Extracted: <u>12/02/2010</u>	<u>0830</u>	VCT								
			Analyzed: <u>12/13/2010</u>	<u>1429</u>	DGA								
			Date		Analyst								
COMPOUNDS		PQL ug/L (ppb)	SAMPLE		METHOD BLANK		Lab Control		MATRIX SPIKE				
			Detected Amount ug/L (ppb)	Spike	Detected Amount ug/L (ppb)	Spike	Detected Amount ug/mL (ppm)	Spike	Detected Amount ug/mL (ppm)	Spike			
			Amount ug/L (ppb)	% Recovery	Amount ug/L (ppb)	% Recovery	Amount ug/mL (ppm)	% Recovery	Amount ug/mL (ppm)	% Recovery			
Dioxenethion		0.400	1.5		ND		8.9	10.0	89	7.1	10.0	71	
Dioxathion (cis)		0.400	ND		ND		9.9	10.0	99	8.8	10.0	88	
Dioxathion (trans)		0.400	0.62		ND		9.6	10.0	96	7.9	10.0	79	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery			
Naphthalene		6.3	10.00	63	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

Certified by:

  
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BONNER ANALYTICAL TESTING COMPANY  
 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-CM03-11292010</u> File #: <u>1011344-03</u>			Collected: <u>11/29/2010</u>	<u>1500</u>	Client				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery
Dioxenethion	0.400	0.49			ND			8.8	10.0	88	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		6.9	10.00	69	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

Certified by:

  
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**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-CM02-11292010</u> File #: <u>1011344-04</u>			Collected: <u>11/29/2010</u>	<u>1505</u>	Client:				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.8	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		8.1	10.00	81	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

Certified by:

  
Michael S. Bonner, Ph.D  
BONNER ANALYTICAL TESTING COMPANY

BONNER ANALYTICAL TESTING COMPANY  
 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-CM01-11292010</u> File #: <u>1011344-05</u>			Collected: <u>11/29/2010</u>	<u>1520</u>	Client				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L	% Recovery	Detected Amount ug/L (ppb)	Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			8.9	10.0	89	7.1	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		7.1	10.00	71	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72

Certified by:

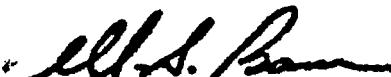


Michael S. Bonner, Ph.D.  
 BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-CM00-11292010</u> File #: <u>1011344-06</u>			Collected: <u>11/29/2010</u>	<u>1525</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>								
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE			
		Detected Amount ug/L (ppb)	Spike ug/L	% Recovery	Detected Amount ug/L (ppb)	Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	
Dioxenethion	0.400	ND			ND			8.9	10.0	89	7.1	10.0	71	
Dioxathion (cis)	0.400	ND			ND			9.9	10.0	99	8.8	10.0	88	
Dioxathion (trans)	0.400	ND			ND			9.6	10.0	96	7.9	10.0	79	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	
Naphthalene		6.9	10.00	69	7.1	10.00	71	7.2	10.00	72	7.2	10.00	72	

Certified by:

  
Michael S. Bonner, Ph.D.  
BONNER ANALYTICAL TESTING COMPANY

YOUR COMPANY NAME: Ashland Chemicals  
YOUR COMPANY ADDRESS: 500 Hercules Rd.  
Wilmington DE 19808

NAME OF PERSON TO CONTACT: Tim Hassett  
CONTACT PERSON'S PHONE: 251-342-0700 FAX:  
CONTACT PERSON'S EMAIL: caleb.dana@eca-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

	SAMPLE DESCRIPTION	DATE	TIME	MATRIX
1	ASH - CM05 - 11292010	11-29-2010	1445	SW
2	ASH - CM09 - 11292010	11-29-2010	1450	SW
3	ASH - CM03 - 11292010	11-29-2010	1500	SW
4	ASH - CM02 - 11292010	11-29-2010	1505	SW
5	ASH - CM01 - 11292010	11-29-2010	1520	SW
6	ASH - CM00 - 11292010	11-29-2010	1525	SW
7				
8				
9				
10				

SAMPLE COLLECTOR/RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Chris Tewell	11-29-2010	1600	SLB/

METHOD OF SHIPMENT (If Any) *Priority Mail*

REMARKS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**BONNER ANALYTICAL TESTING COMPANY**

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Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

[WWW.BATCO.COM](http://WWW.BATCO.COM)



PARAMETERS FOR ANALYSIS						NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE	
Protein			3510/8321 HLL-PA					Turn Around Time	Std.
✓						1	-	BT	
✓						1	-	BT	
✓						1	-	BT	
✓						1	-	BT	
✓						1	-	BT	
✓						1	-	BT	
✓						1	-	BT	
								BT	
								BT	
								BT	
								BT	
RELINQUISHED BY:						DATE	TIME	RECEIVED BY:	
DATE	TIME	RECEIVED FOR BATCO BY:				DATE/TIME			
<input type="checkbox"/> REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS <small>(Signature)</small>								REVISION NO 1.2 03/22/01	
IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF \$30.00 PER SAMPLE WILL BE ASSESSED.									

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW16-12022010</u> File #: <u>1012042-01</u>			Collected: <u>12/02/2010</u>	<u>0950</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE		METHOD BLANK		Lab Control		MATRIX SPIKE					
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike Amount ug/mL	% Recovery
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	1.6			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	ND			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		5.7	10.00	57	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

Certified by:

  
Michael S. Bonner, Ph.D  
BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW15-12022010</u> File #: <u>1012042-02</u>				Collected: <u>12/02/2010</u>	<u>1030</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>						
				Extracted: <u>12/04/2010</u>	<u>0800</u>	VCT							
				Analyzed: <u>12/15/2010</u>	<u>0127</u>	DGA							
				Date		Analyst							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L (ppb)	Amount ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike ug/L (ppb)	Amount ug/L (ppb)	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	2.9			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	2.8			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		6.2	10.00	62	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-RS3-12022010</u> File #: <u>1012042-03</u>			Collected: <u>12/02/2010</u>	<u>1040</u>	Client	Sample Type: Water Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/mL (ppm)	Spike		Detected Amount ug/mL (ppm)	Spike	
Dioxenethion	0.400	1.3			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	ND			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	0.89			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		7.4	10.00	74	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW14-12022010</u> File #: <u>1012042-04</u>			Collected: <u>12/02/2010</u>	<u>1120</u>	Client				Sample Type: <u>Water</u>			
			Extracted: <u>12/04/2010</u>	<u>0800</u>	VCT				Extraction Method: <u>SW848 3510C</u>			
			Analyzed: <u>12/15/2010</u>	<u>0215</u>	DGA				Analysis Method: <u>Modified SW846</u>			
						Date	Analyst					
COMPOUNDS		PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE
			Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)
				Amount ug/L	% Recovery							Amount ug/mL (ppm)
Dioxenethion		0.400	ND			ND			9.13	10.0	91	7.11
Dioxathion (cis)		0.400	5.1			ND			9.43	10.0	94	8.07
Dioxathion (trans)		0.400	1.0			ND			8.84	10.0	88	8.22
SURROGATE COMPOUNDS			Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	
Naphthalene			7.6	10.00	76	6.77	10.00	68	7.71	10.00	77	7.80
												10.00
												78

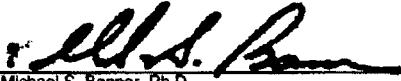
Certified by:

  
Michael S. Bonner, Ph.D  
BONNER ANALYTICAL TESTING COMPANY

**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW13-12022010</u> File #: <u>1012042-05</u>			Collected: <u>12/02/2010</u>	<u>1200</u>	Client	Sample Type: <u>Water</u>							
			Extracted: <u>12/04/2010</u>	<u>0800</u>	VCT	Extraction Method: <u>SW846 3510C</u>							
			Analyzed: <u>12/15/2010</u>	<u>0239</u>	DGA	Analysis Method: <u>Modified SW846</u>							
		Date	Analyst										
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK		Lab Control		MATRIX SPIKE				
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	6.6			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	1.5			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	0.60			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		10.0	10.00	100	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW19-12022010</u> File #: <u>1012042-06</u>			Collected: <u>12/02/2010</u>	<u>1235</u>	Client				Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike ug/L (ppb)	% Recovery	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)	% Recovery
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	79.6			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	5.1			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		9.9	10.00	99	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

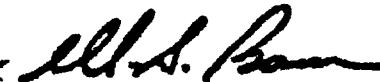
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**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-FD2-12022010</u> File #: <u>1012042-07</u>		Collected: <u>12/02/2010</u>		Client Extracted: <u>12/04/2010</u> 0800      VCT				Sample Type: Water					
		Analyzed: <u>12/15/2010</u> 0327      DGA				Extraction Method: <u>SW846 3510C</u>		Analysis Method: <u>Modified SW846</u>					
		Date		Analyst									
COMPOUNDS	PQL ug/L (ppb)	SAMPLE		METHOD BLANK		Lab Control		MATRIX SPIKE					
		Detected Amount ug/L (ppb)	Spike Amount ug/L	% Recovery	Detected Amount ug/L (ppb)	Amount ug/L	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery	Detected Amount ug/mL (ppm)	Amount ug/mL	% Recovery
Dioxenethion	0.400	6.3			ND		9.13	10.0	91	7.11	10.0	71	
Dioxathion (cis)	0.400	ND			ND		9.43	10.0	94	8.07	10.0	81	
Dioxathion (trans)	0.400	ND			ND		8.84	10.0	88	8.22	10.0	82	
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		9.4	10.00	94	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

Certified by:

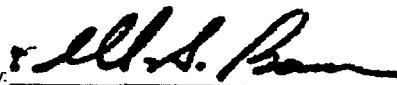


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BONNER ANALYTICAL TESTING COMPANY  
 QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA  
 DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA

Client: <b>Ashland Chemical</b> Sample ID: ASH-MW09-12022010 File #: 1012042-08			Collected: 12/02/2010	1335	Client				Sample Type: Water				
			Extracted: 12/04/2010	0800	VCT				Extraction Method: SW846 3510C				
			Analyzed: 12/15/2010	0351	DGA				Analysis Method: Modified SW846				
COMPOUNDS	PQL ug/L (ppb)	SAMPLE	METHOD BLANK			Lab Control			MATRIX SPIKE				
		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/L (ppb)	Spike		Detected Amount ug/mL (ppm)	Spike		Detected Amount ug/mL (ppm)		
		Amount ug/L	% Recovery	Amount ug/L	% Recovery	Amount ug/L	% Recovery	Amount ug/mL	% Recovery	Amount ug/mL	% Recovery		
Dioxenethion	0.400	ND			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	6.6			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	1.2			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene		5.2	10.00	52	8.77	10.00	68	7.71	10.00	77	7.80	10.00	78

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**BONNER ANALYTICAL TESTING COMPANY**  
**QUANTITATIVE RESULTS AND QUALITY ASSURANCE DATA**  
**DIOXATHION/ DIOXENETHION HPLC ANALYSIS DATA**

Client: <u>Ashland Chemical</u> Sample ID: <u>ASH-MW08-12022010</u> File #: <u>1012042-09</u>			Collected: <u>12/02/2010</u>	<u>1410</u>	Client	Sample Type: <u>Water</u> Extraction Method: <u>SW846 3510C</u> Analysis Method: <u>Modified SW846</u>							
COMPOUNDS	PQL ug/L (ppb)	SAMPLE			METHOD BLANK			Lab Control			MATRIX SPIKE		
		Detected Amount ug/L (ppb)	Spike ug/L (ppb)	% Recovery	Detected Amount ug/L (ppb)	Spike ug/L (ppb)	% Recovery	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)	% Recovery	Detected Amount ug/mL (ppm)	Spike ug/mL (ppm)	% Recovery
Dioxenethion	0.400	310			ND			9.13	10.0	91	7.11	10.0	71
Dioxathion (cis)	0.400	4.3			ND			9.43	10.0	94	8.07	10.0	81
Dioxathion (trans)	0.400	60.1			ND			8.84	10.0	88	8.22	10.0	82
SURROGATE COMPOUNDS		Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery	Detected Amount	Spiked Amount	% Recovery
Naphthalene	*	35.9	10.00	359	6.77	10.00	68	7.71	10.00	77	7.80	10.00	78

\*High surrogate recovery due to interference

Certified by:

  
Michael S. Bonner, Ph.D.  
BONNER ANALYTICAL TESTING COMPANY

YOUR COMPANY NAME: Ashland Chemical  
YOUR COMPANY ADDRESS: 500 Hercules Rd  
H. Imington DE 19808

NAME OF PERSON TO CONTACT: Tim Hassett  
CONTACT PERSON'S PHONE: 251-342-0700 FAX:  
CONTACT PERSON'S EMAIL: caleb.dana@eco-systemsinc.com

CLIENT PROJECT NO.	CLIENT P.O.#	CLIENT PROJECT NUMBER

SAMPLE DESCRIPTION	DATE	TIME	MATRIX
<sup>1</sup> ASH - FD1 - 12012010	12-01-2010	—	GW
<sup>2</sup> ASH - MW10 - 12012010	12-01-2010	1055	GW
<sup>3</sup> ASH - MW04 - 12012010	12-01-2010	1150	GW
<sup>4</sup> ASH - MW11 - 12012010	12-01-2010	1230	GW
<sup>5</sup> ASH - RS2 - 12012010	12-01-2010	1215	W
<sup>6</sup> ASH - MW05 - 12012010	12-01-2010	1300	GW
<sup>7</sup> ASH - MW12 - 12012010	12-01-2010	1415	GW
<sup>8</sup> ASH - MW06 - 12012010	12-01-2010	1400	GW
<sup>9</sup> ASH - MW07 - 12012010	12-01-2010	1445	GW
<sup>10</sup> ASH - MW24 - 12012010	12-01-2010	1525	GW

SAMPLE COLLECTOR/RELINQUISHED BY: Chris Tegrell <i>CT</i>	DATE 12-01-2010	TIME 1600	RECEIVED BY: <i>DT</i>
-----------------------------------------------------------------	--------------------	--------------	---------------------------

**METHOD OF SHIPMENT (If Any)** **RELINQUISHED BY:**

**REMARKS:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**BONNER ANALYTICAL TESTING COMPANY**

2703 Oak Grove Road, Hattiesburg, MS 39401

Phone: (601)-264-2854 Fax: (601)-268-7084 Email: batco@batco.com

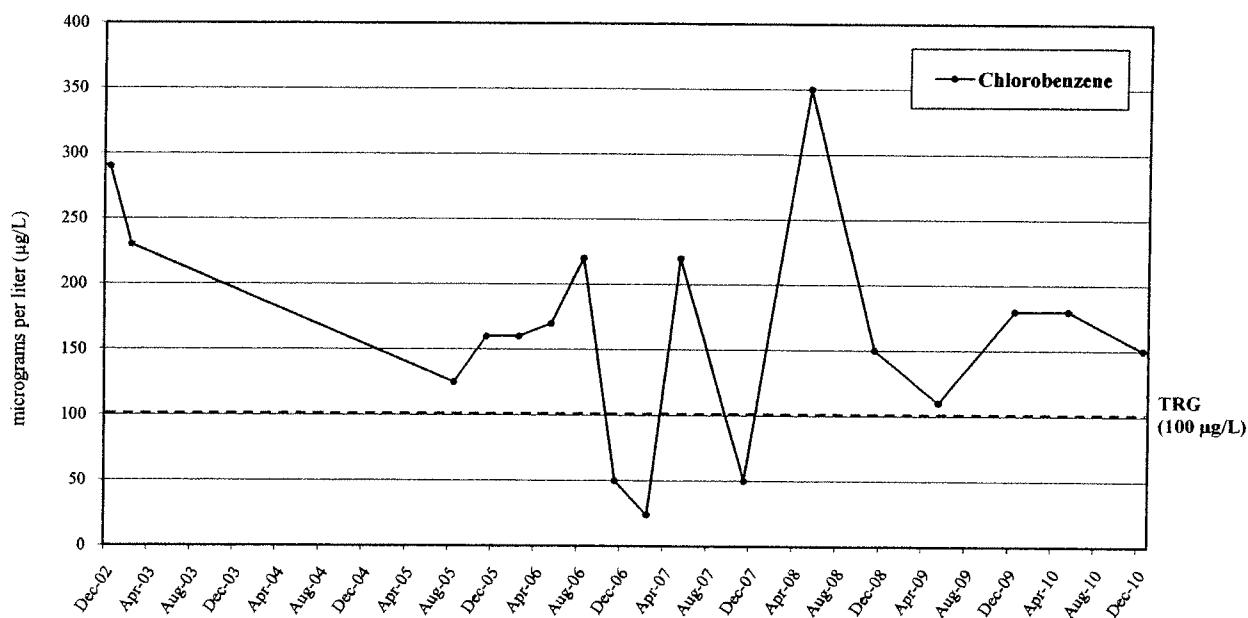
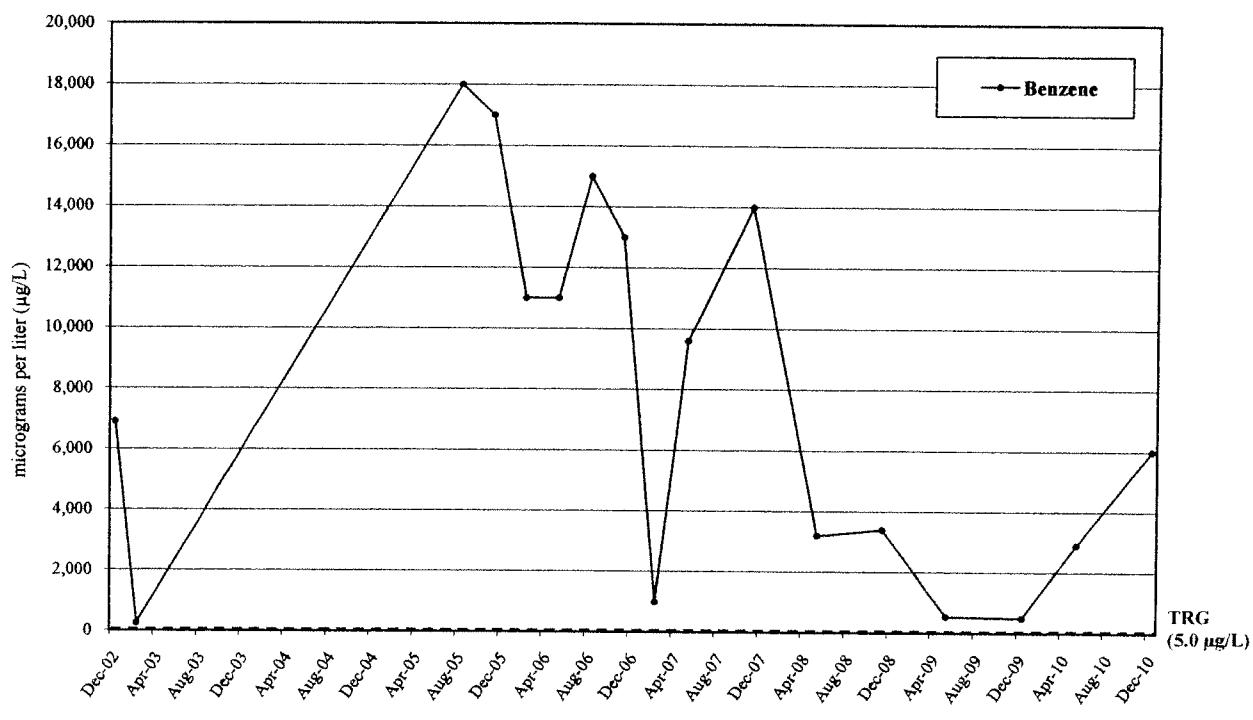
[WWW.BATCO.COM](http://WWW.BATCO.COM)



PARAMETERS FOR ANALYSIS					NUMBER OF CONTAINERS	PRESERVATION	LABORATORY USE	
Brookfield	3510/BS321	HPLC-PDA					Std.	
							Project Number	
							1012024	
							File ID	
					1	—	BT	
✓					1	—	BT	
✓					1	—	BT	
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✓					1	—	BT	
✓					1	—	BT	
RELINQUISHED BY:			DATE	TIME	RECEIVED BY:			
DATE	TIME	RECEIVED FOR BATCO BY:				DATE/TIME		
<input type="checkbox"/> REQUEST BATCO TO DISPOSE OF ALL SAMPLE REMAINDERS IF SAMPLE IS DETERMINED TO BE HAZARDOUS, A MINIMUM ADDITIONAL CHARGE OF \$30.00 PER SAMPLE WILL BE ASSESSED.								
(Signature)								
REVISION NO 1.2 03/22/01								

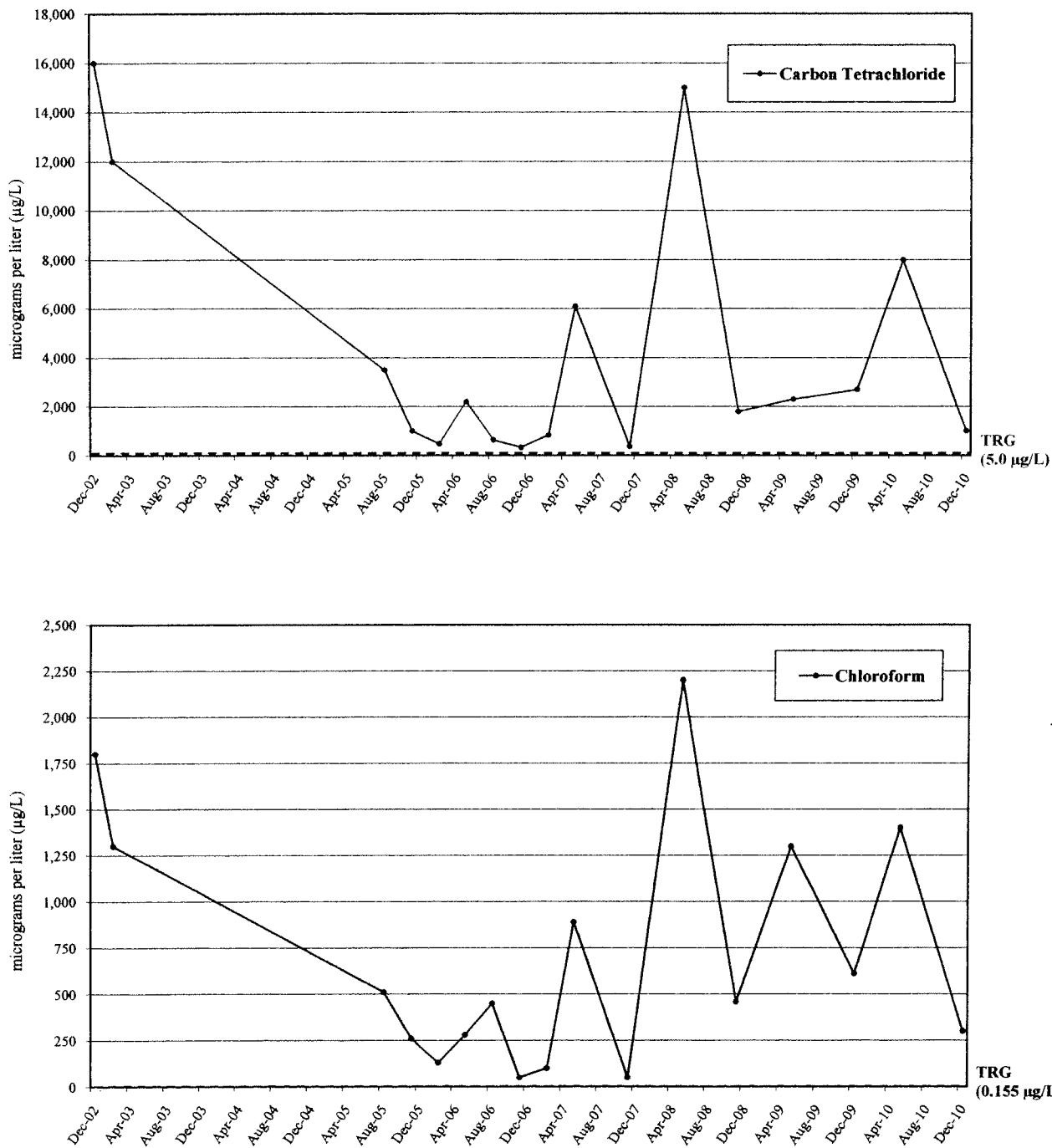
**APPENDIX C**  
**CONCENTRATION TREND GRAPHS**

**VOC CONCENTRATION TRENDS AT MW-08**  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*



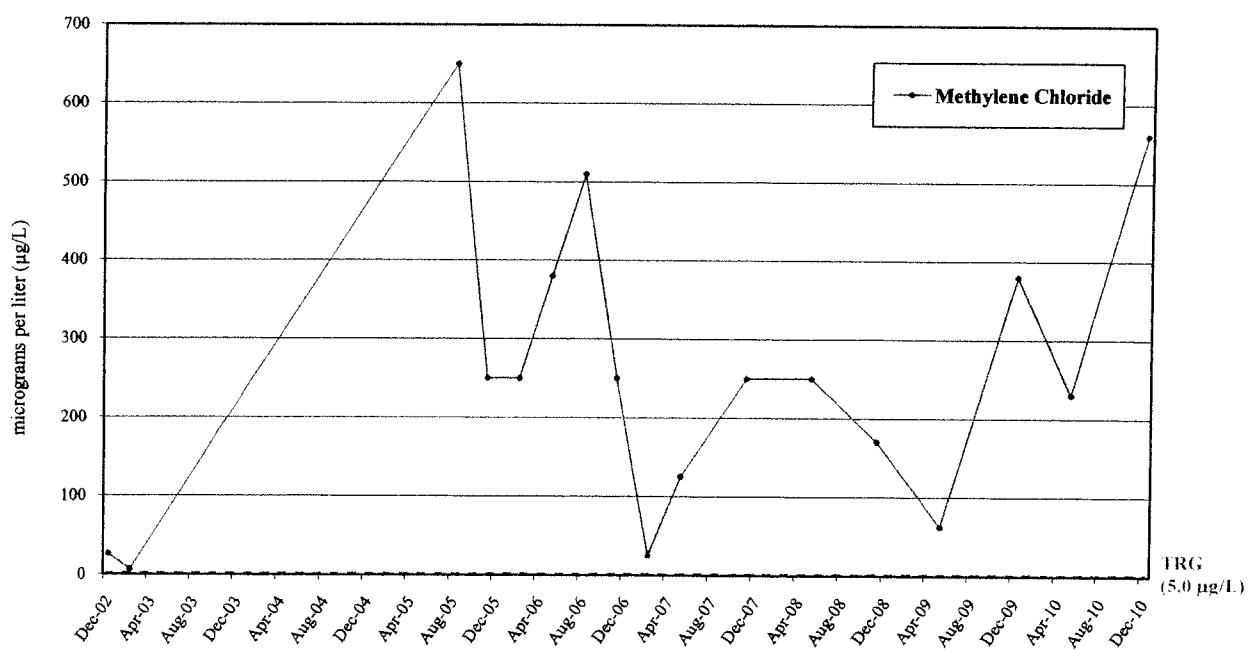
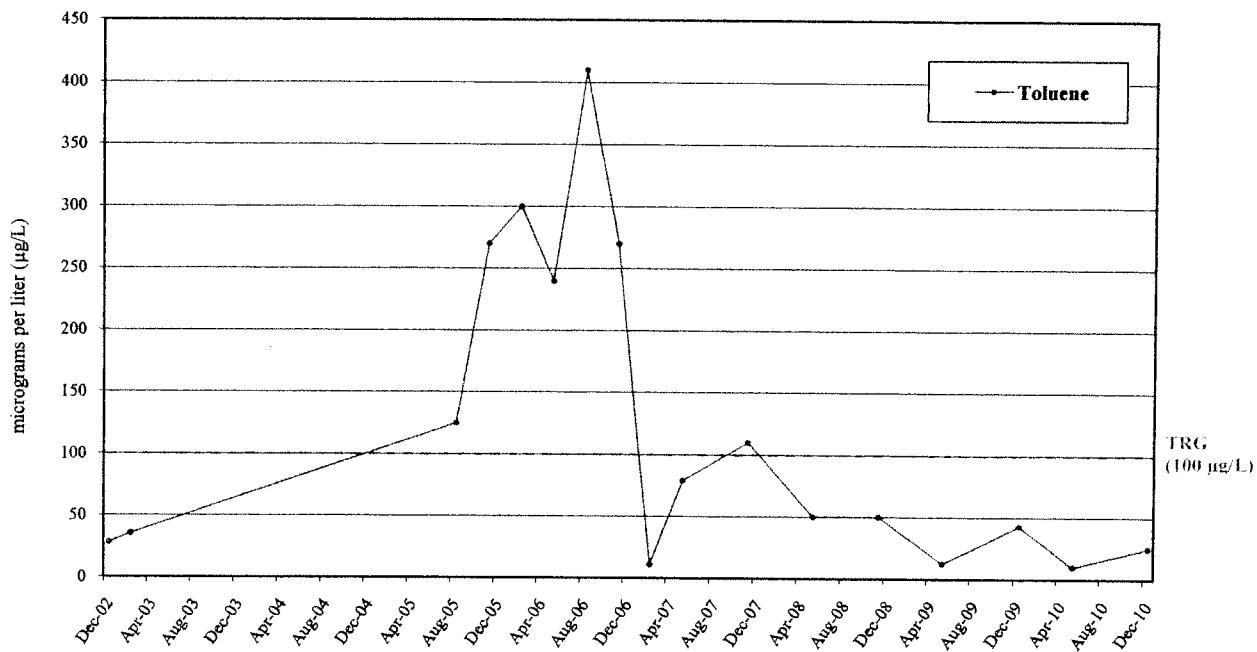
## VOC CONCENTRATION TRENDS AT MW-08

Hercules Incorporated  
Hattiesburg, Mississippi

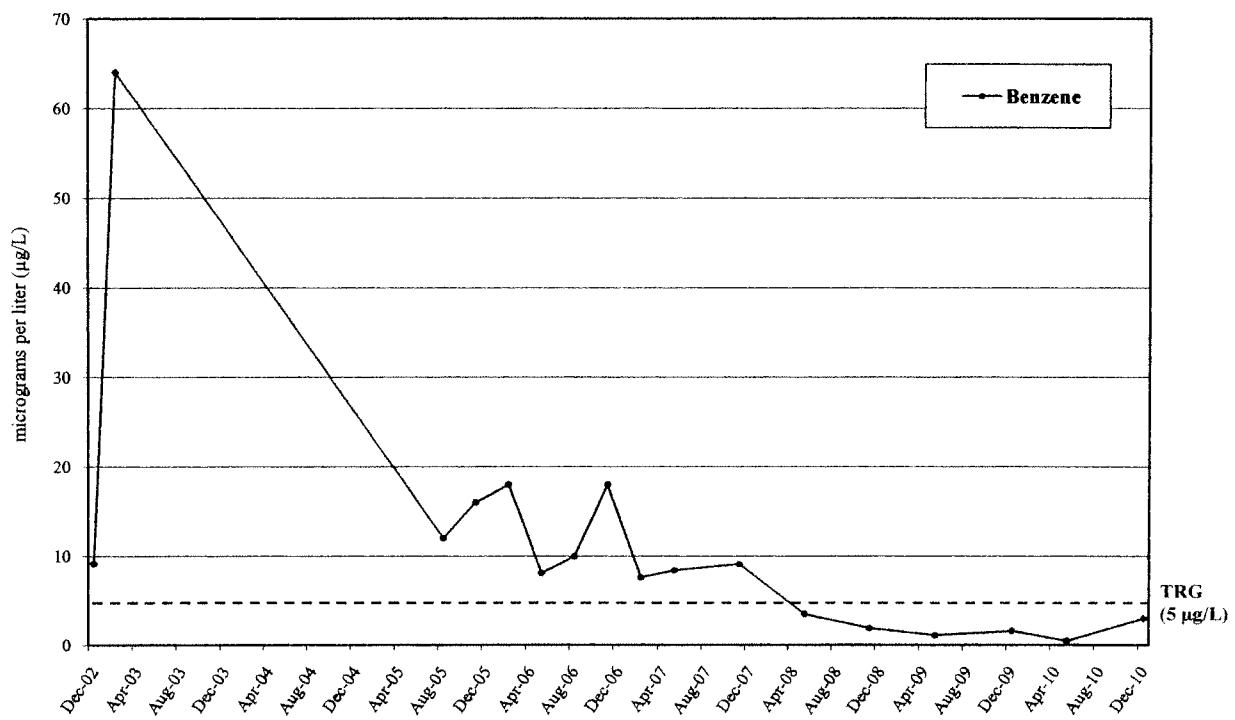


## VOC CONCENTRATION TRENDS AT MW-08

*Hercules Incorporated  
Hattiesburg, Mississippi*

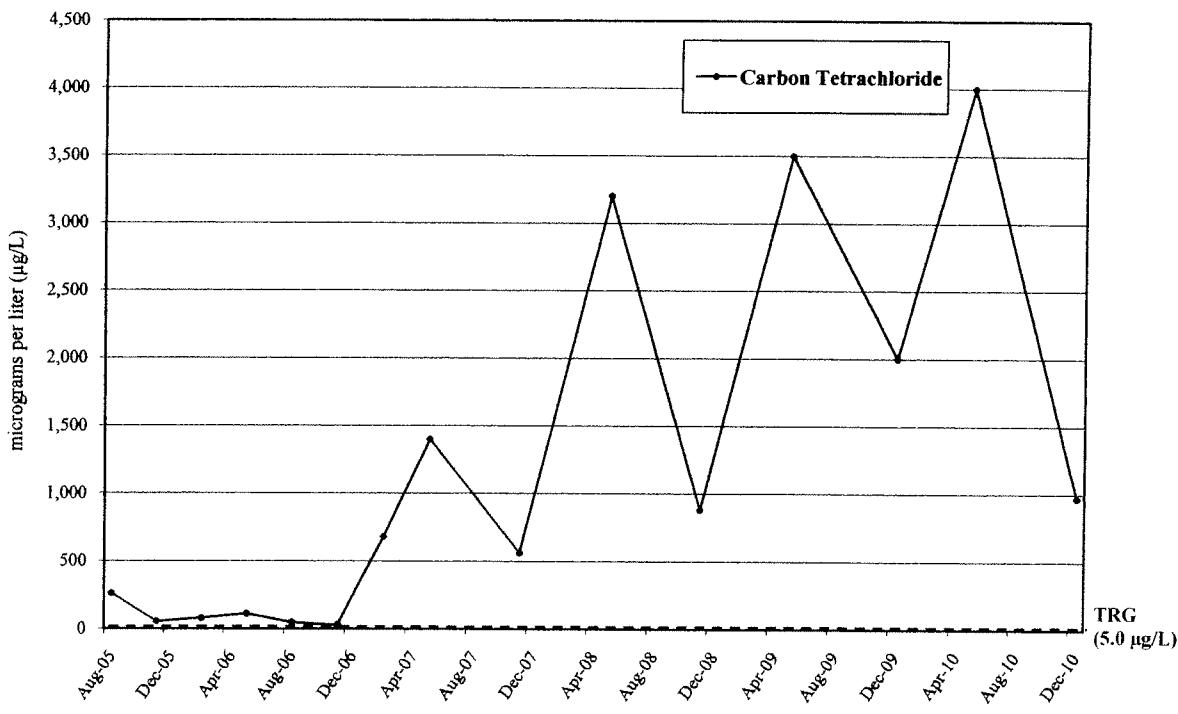
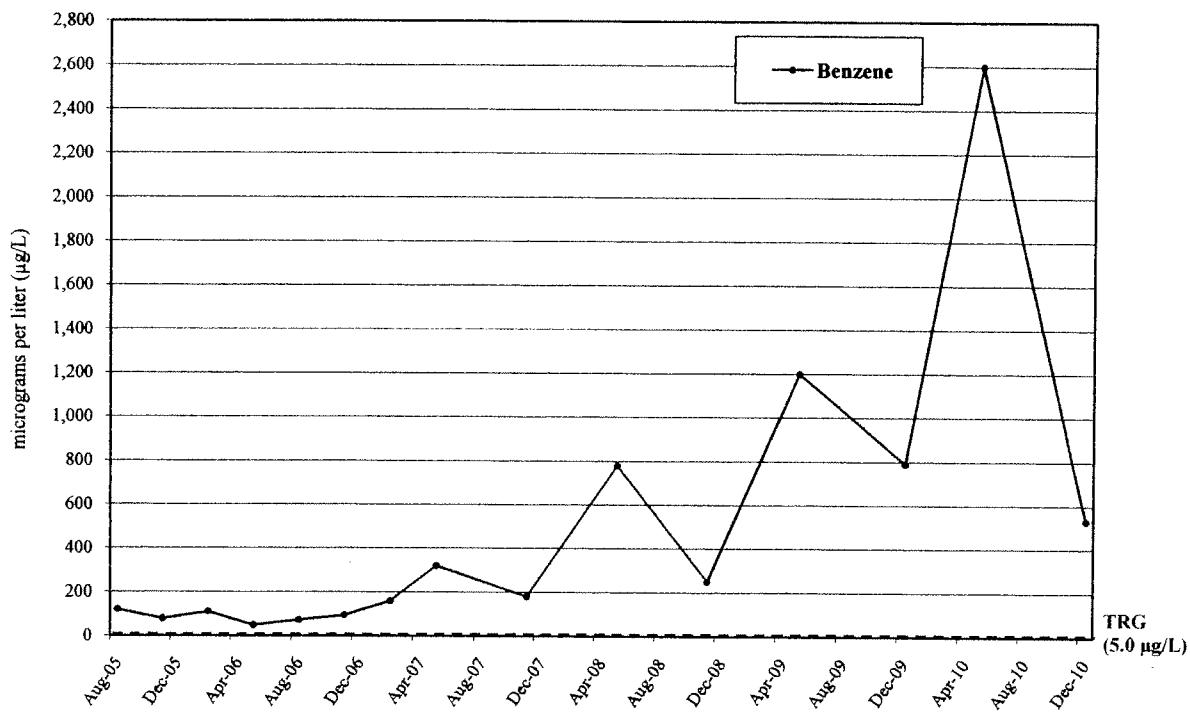


VOC CONCENTRATION TRENDS AT MW-09  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*

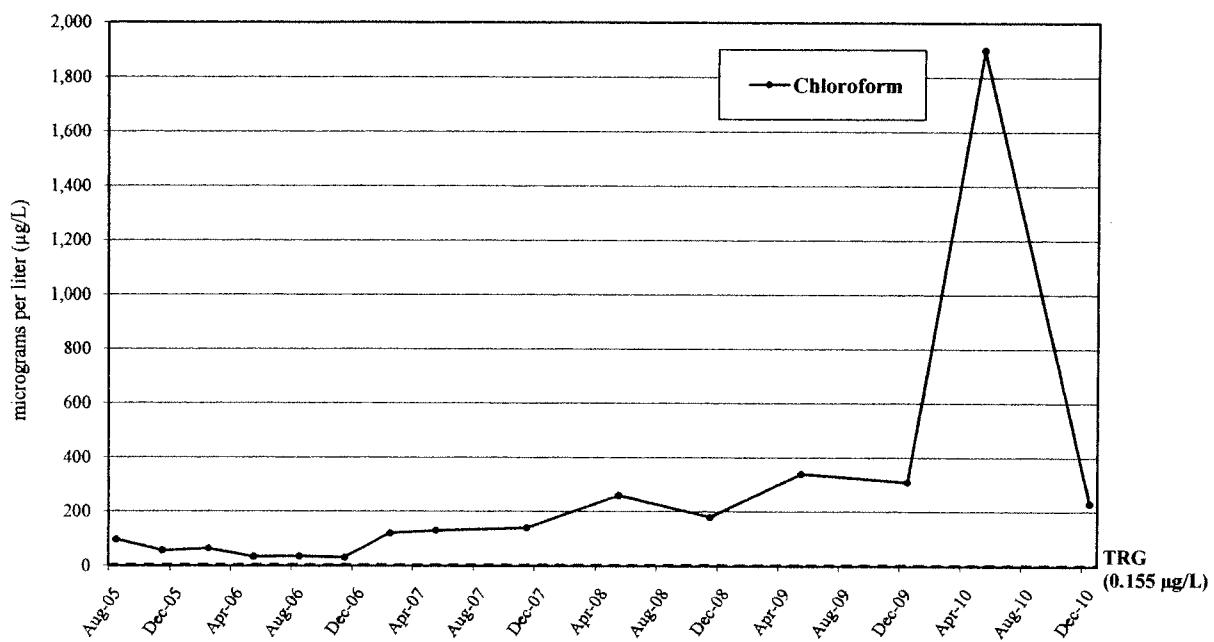


## VOC CONCENTRATION TRENDS AT MW-13

*Hercules Incorporated  
Hattiesburg, Mississippi*

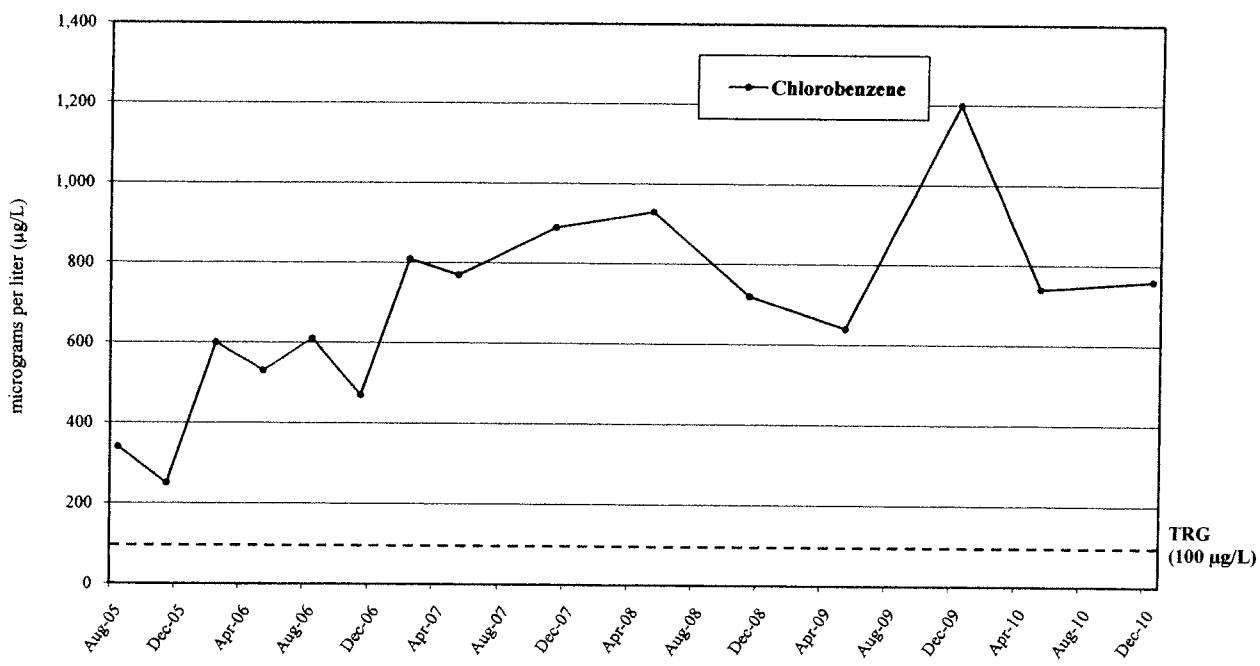
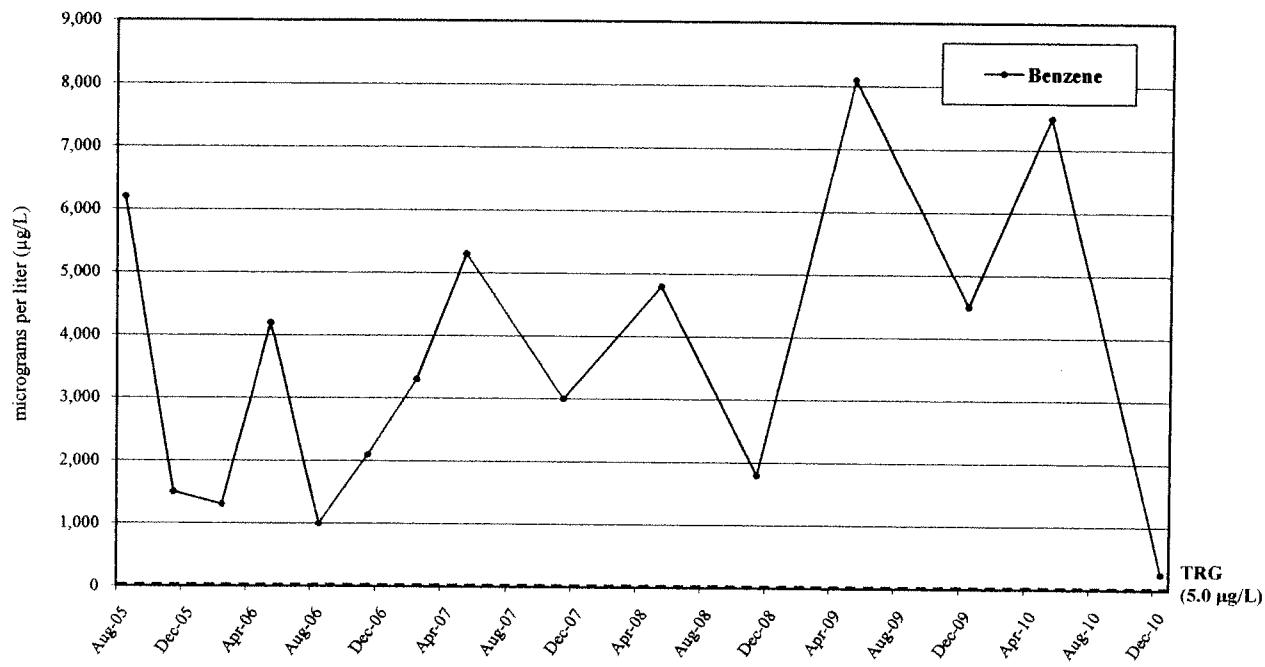


VOC CONCENTRATION TRENDS AT MW-13  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*

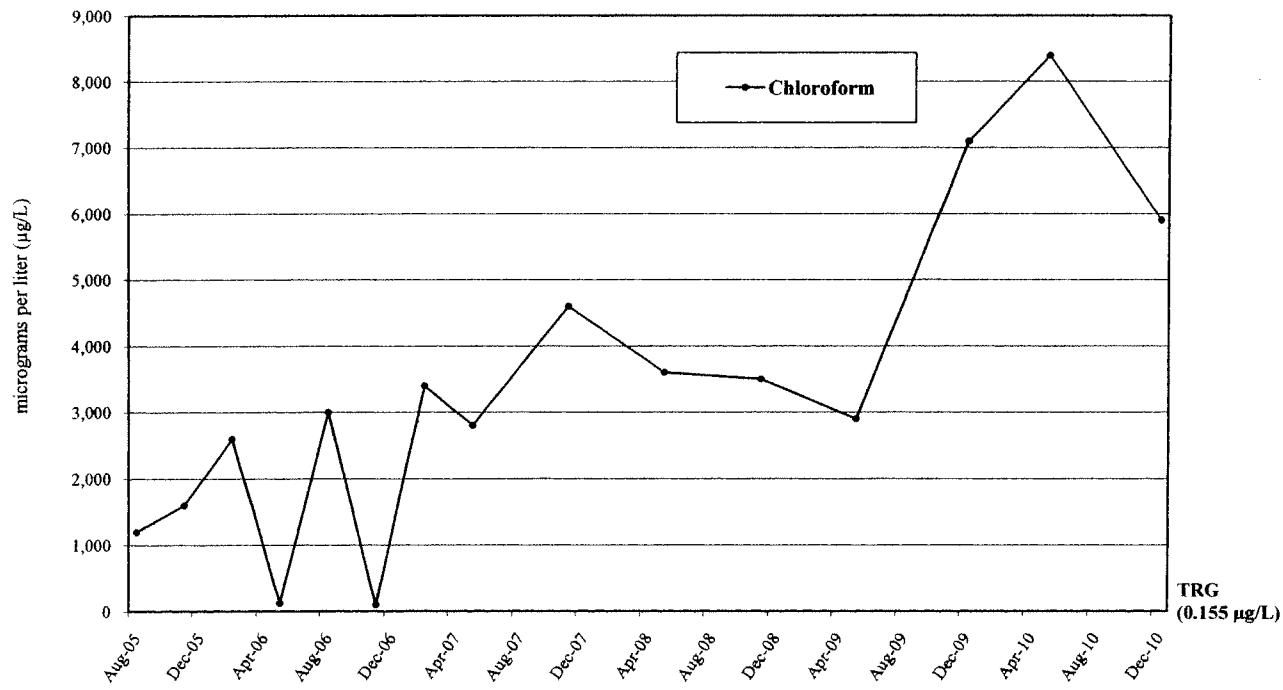
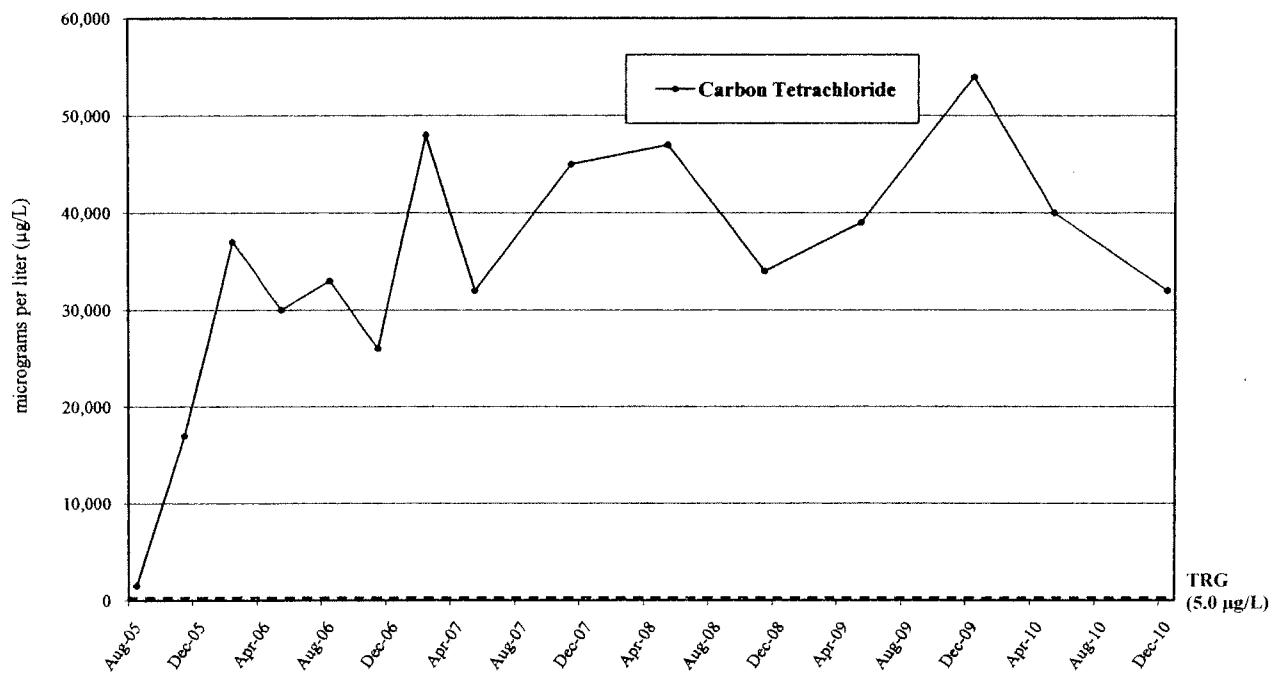


## VOC CONCENTRATION TRENDS AT MW-17

*Hercules Incorporated  
Hattiesburg, Mississippi*

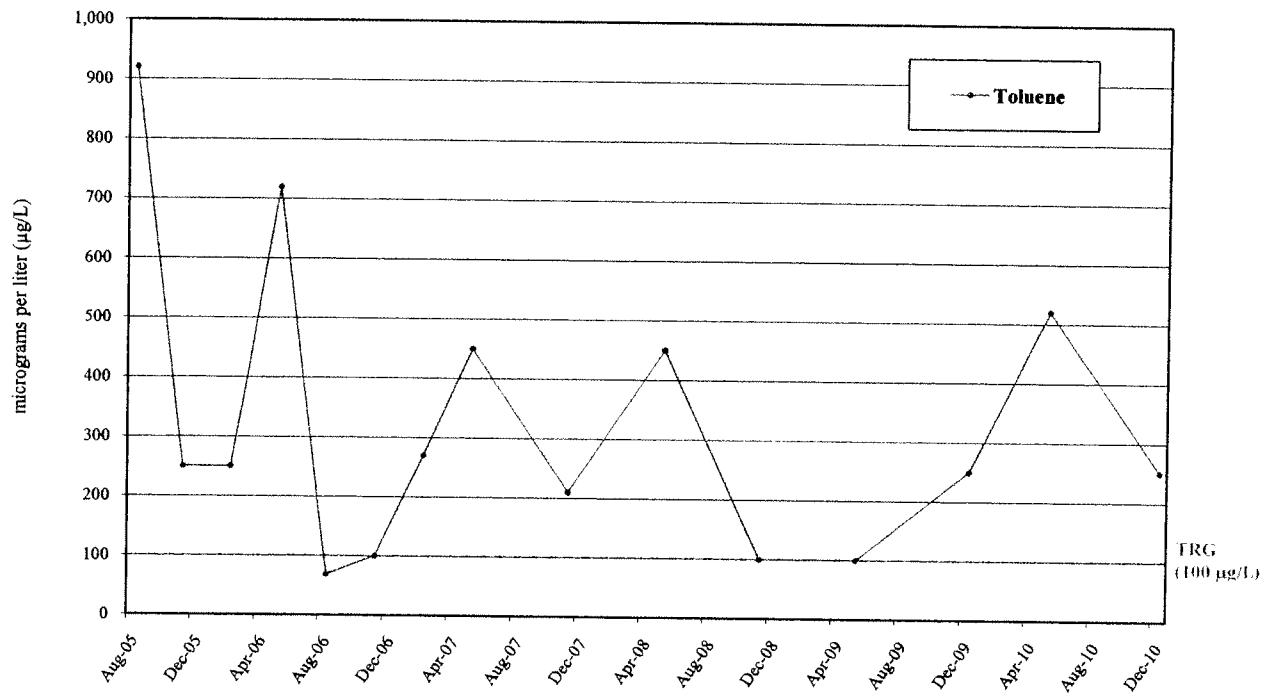


**VOC CONCENTRATION TRENDS AT MW-17**  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*



## VOC CONCENTRATION TRENDS AT MW-17

*Hercules Incorporated  
Hattiesburg, Mississippi*



**VOC CONCENTRATION TRENDS AT MW-19**  
*Hercules Incorporated*  
*Hattiesburg, Mississippi*

