

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING


## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404  
Tel: (912)354-7858

TestAmerica Job ID: 680-70758-2  
Client Project/Site: Hercules Hattiesburg APIX 7/26/11

For:  
Ashland Inc.  
Ashland Hercules Research Center  
500 Hercules Rd Bldg 8139  
Wilmington, Delaware 19808

Attn: Timothy Hassett



Authorized for release by:  
08/10/2011 06:12:29 PM

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### LINKS

Review your project  
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Have a Question?



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[www.testamericainc.com](http://www.testamericainc.com)

*Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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# Case Narrative

Client: Ashland Inc.  
Project/Site: Hercules Hattiesburg APIX 7/26/11

TestAmerica Job ID: 680-70758-2

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**Job ID: 680-70758-2**

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**Laboratory: TestAmerica Savannah**

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**Narrative**

**Job Narrative**  
**680-70758-2**

**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.

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# Sample Summary

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-70758-8	ASH-MW21-072611	Water	07/26/11 15:03	07/27/11 09:20

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# Method Summary

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

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Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV

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**Protocol References:**

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

**Laboratory References:**

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858



# Definitions/Glossary

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

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# Client Sample Results

Client: Ashland Inc.  
 Project/Site: Hercules Hattiesburg APIX 7/26/11

TestAmerica Job ID: 680-70758-2

**Client Sample ID: ASH-MW21-072611**

**Lab Sample ID: 680-70758-8**

**Date Collected: 07/26/11 15:03**

**Matrix: Water**

**Date Received: 07/27/11 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1300		1300		ug/L			07/30/11 07:05	50
Acetonitrile	<2000		2000		ug/L			07/30/11 07:05	50
Acrolein	<1000		1000		ug/L			07/30/11 07:05	50
Acrylonitrile	<1000		1000		ug/L			07/30/11 07:05	50
<b>Benzene</b>	<b>3200</b>		50		ug/L			07/30/11 07:05	50
Dichlorobromomethane	<50		50		ug/L			07/30/11 07:05	50
Bromoform	<50		50		ug/L			07/30/11 07:05	50
Bromomethane	<50		50		ug/L			07/30/11 07:05	50
2-Butanone (MEK)	<500		500		ug/L			07/30/11 07:05	50
Carbon disulfide	<100		100		ug/L			07/30/11 07:05	50
Carbon tetrachloride	<50		50		ug/L			07/30/11 07:05	50
<b>Chlorobenzene</b>	<b>150</b>		50		ug/L			07/30/11 07:05	50
2-Chloro-1,3-butadiene	<50		50		ug/L			07/30/11 07:05	50
Chloroethane	<50		50		ug/L			07/30/11 07:05	50
<b>Chloroform</b>	<b>4300</b>		50		ug/L			07/30/11 07:05	50
Chloromethane	<50		50		ug/L			07/30/11 07:05	50
3-Chloro-1-propene	<50		50		ug/L			07/30/11 07:05	50
Chlorodibromomethane	<50		50		ug/L			07/30/11 07:05	50
1,2-Dibromo-3-Chloropropane	<50		50		ug/L			07/30/11 07:05	50
Ethylene Dibromide	<50		50		ug/L			07/30/11 07:05	50
Dibromomethane	<50		50		ug/L			07/30/11 07:05	50
trans-1,4-Dichloro-2-butene	<100		100		ug/L			07/30/11 07:05	50
Dichlorodifluoromethane	<50		50		ug/L			07/30/11 07:05	50
1,1-Dichloroethane	<50		50		ug/L			07/30/11 07:05	50
1,2-Dichloroethane	<50		50		ug/L			07/30/11 07:05	50
cis-1,2-Dichloroethene	<50		50		ug/L			07/30/11 07:05	50
trans-1,2-Dichloroethene	<50		50		ug/L			07/30/11 07:05	50
1,1-Dichloroethene	<50		50		ug/L			07/30/11 07:05	50
1,2-Dichloropropane	<50		50		ug/L			07/30/11 07:05	50
cis-1,3-Dichloropropene	<50		50		ug/L			07/30/11 07:05	50
trans-1,3-Dichloropropene	<50		50		ug/L			07/30/11 07:05	50
Ethylbenzene	<50		50		ug/L			07/30/11 07:05	50
Ethyl methacrylate	<50		50		ug/L			07/30/11 07:05	50
2-Hexanone	<500		500		ug/L			07/30/11 07:05	50
Iodomethane	<250		250		ug/L			07/30/11 07:05	50
Isobutyl alcohol	<2000		2000		ug/L			07/30/11 07:05	50
Methacrylonitrile	<1000		1000		ug/L			07/30/11 07:05	50
Methylene Chloride	<250		250		ug/L			07/30/11 07:05	50
Methyl methacrylate	<50		50		ug/L			07/30/11 07:05	50
4-Methyl-2-pentanone (MIBK)	<500		500		ug/L			07/30/11 07:05	50
Pentachloroethane	<250		250		ug/L			07/30/11 07:05	50
Propionitrile	<1000		1000		ug/L			07/30/11 07:05	50
Styrene	<50		50		ug/L			07/30/11 07:05	50
1,1,1,2-Tetrachloroethane	<50		50		ug/L			07/30/11 07:05	50
1,1,2,2-Tetrachloroethane	<50		50		ug/L			07/30/11 07:05	50
Tetrachloroethene	<50		50		ug/L			07/30/11 07:05	50
<b>Toluene</b>	<b>2600</b>		50		ug/L			07/30/11 07:05	50
1,1,1-Trichloroethane	<50		50		ug/L			07/30/11 07:05	50
1,1,2-Trichloroethane	<50		50		ug/L			07/30/11 07:05	50
Trichloroethene	<50		50		ug/L			07/30/11 07:05	50

# Client Sample Results

Client: Ashland Inc.  
 Project/Site: Hercules Hattiesburg APIX 7/26/11

TestAmerica Job ID: 680-70758-2

**Client Sample ID: ASH-MW21-072611**

**Lab Sample ID: 680-70758-8**

**Date Collected: 07/26/11 15:03**

**Matrix: Water**

**Date Received: 07/27/11 09:20**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<50		50		ug/L			07/30/11 07:05	50
1,2,3-Trichloropropane	<50		50		ug/L			07/30/11 07:05	50
Vinyl acetate	<100		100		ug/L			07/30/11 07:05	50
Vinyl chloride	<50		50		ug/L			07/30/11 07:05	50
Xylenes, Total	<100		100		ug/L			07/30/11 07:05	50

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		70 - 130		07/30/11 07:05	50
Dibromofluoromethane	107		70 - 130		07/30/11 07:05	50
Toluene-d8 (Surr)	100		70 - 130		07/30/11 07:05	50

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# Surrogate Summary

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

**Matrix: Water**

**Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB (70-130)	DBFM (70-130)	TOL (70-130)
680-70758-8	ASH-MW21-072611	92	107	100
LCS 680-210543/4	Lab Control Sample	104	108	101
LCSD 680-210543/5	Lab Control Sample Dup	102	103	101
MB 680-210543/7	Method Blank	93	107	100

**Surrogate Legend**

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)



# QC Sample Results

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

## Method: 8260B - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 680-210543/7**

**Matrix: Water**

**Analysis Batch: 210543**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<25		25		ug/L			07/30/11 00:43	1
Acetonitrile	<40		40		ug/L			07/30/11 00:43	1
Acrolein	<20		20		ug/L			07/30/11 00:43	1
Acrylonitrile	<20		20		ug/L			07/30/11 00:43	1
Benzene	<1.0		1.0		ug/L			07/30/11 00:43	1
Dichlorobromomethane	<1.0		1.0		ug/L			07/30/11 00:43	1
Bromoform	<1.0		1.0		ug/L			07/30/11 00:43	1
Bromomethane	<1.0		1.0		ug/L			07/30/11 00:43	1
2-Butanone (MEK)	<10		10		ug/L			07/30/11 00:43	1
Carbon disulfide	<2.0		2.0		ug/L			07/30/11 00:43	1
Carbon tetrachloride	<1.0		1.0		ug/L			07/30/11 00:43	1
Chlorobenzene	<1.0		1.0		ug/L			07/30/11 00:43	1
2-Chloro-1,3-butadiene	<1.0		1.0		ug/L			07/30/11 00:43	1
Chloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1
Chloroform	<1.0		1.0		ug/L			07/30/11 00:43	1
Chloromethane	<1.0		1.0		ug/L			07/30/11 00:43	1
3-Chloro-1-propene	<1.0		1.0		ug/L			07/30/11 00:43	1
Chlorodibromomethane	<1.0		1.0		ug/L			07/30/11 00:43	1
1,2-Dibromo-3-Chloropropane	<1.0		1.0		ug/L			07/30/11 00:43	1
Ethylene Dibromide	<1.0		1.0		ug/L			07/30/11 00:43	1
Dibromomethane	<1.0		1.0		ug/L			07/30/11 00:43	1
trans-1,4-Dichloro-2-butene	<2.0		2.0		ug/L			07/30/11 00:43	1
Dichlorodifluoromethane	<1.0		1.0		ug/L			07/30/11 00:43	1
1,1-Dichloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1
1,2-Dichloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1
cis-1,2-Dichloroethene	<1.0		1.0		ug/L			07/30/11 00:43	1
trans-1,2-Dichloroethene	<1.0		1.0		ug/L			07/30/11 00:43	1
1,1-Dichloroethene	<1.0		1.0		ug/L			07/30/11 00:43	1
1,2-Dichloropropane	<1.0		1.0		ug/L			07/30/11 00:43	1
cis-1,3-Dichloropropene	<1.0		1.0		ug/L			07/30/11 00:43	1
trans-1,3-Dichloropropene	<1.0		1.0		ug/L			07/30/11 00:43	1
Ethylbenzene	<1.0		1.0		ug/L			07/30/11 00:43	1
Ethyl methacrylate	<1.0		1.0		ug/L			07/30/11 00:43	1
2-Hexanone	<10		10		ug/L			07/30/11 00:43	1
Iodomethane	<5.0		5.0		ug/L			07/30/11 00:43	1
Isobutyl alcohol	<40		40		ug/L			07/30/11 00:43	1
Methacrylonitrile	<20		20		ug/L			07/30/11 00:43	1
Methylene Chloride	<5.0		5.0		ug/L			07/30/11 00:43	1
Methyl methacrylate	<1.0		1.0		ug/L			07/30/11 00:43	1
4-Methyl-2-pentanone (MIBK)	<10		10		ug/L			07/30/11 00:43	1
Pentachloroethane	<5.0		5.0		ug/L			07/30/11 00:43	1
Propionitrile	<20		20		ug/L			07/30/11 00:43	1
Styrene	<1.0		1.0		ug/L			07/30/11 00:43	1
1,1,1,2-Tetrachloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1
1,1,2,2-Tetrachloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1
Tetrachloroethene	<1.0		1.0		ug/L			07/30/11 00:43	1
Toluene	<1.0		1.0		ug/L			07/30/11 00:43	1
1,1,1-Trichloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1
1,1,2-Trichloroethane	<1.0		1.0		ug/L			07/30/11 00:43	1

# QC Sample Results

Client: Ashland Inc.  
Project/Site: Hercules Hattiesburg APIX 7/26/11

TestAmerica Job ID: 680-70758-2

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 680-210543/7**

**Matrix: Water**

**Analysis Batch: 210543**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Trichloroethene	<1.0		1.0		ug/L			07/30/11 00:43	1
Trichlorofluoromethane	<1.0		1.0		ug/L			07/30/11 00:43	1
1,2,3-Trichloropropane	<1.0		1.0		ug/L			07/30/11 00:43	1
Vinyl acetate	<2.0		2.0		ug/L			07/30/11 00:43	1
Vinyl chloride	<1.0		1.0		ug/L			07/30/11 00:43	1
Xylenes, Total	<2.0		2.0		ug/L			07/30/11 00:43	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
4-Bromofluorobenzene	93		70 - 130		07/30/11 00:43	1
Dibromofluoromethane	107		70 - 130		07/30/11 00:43	1
Toluene-d8 (Surr)	100		70 - 130		07/30/11 00:43	1

**Lab Sample ID: LCS 680-210543/4**

**Matrix: Water**

**Analysis Batch: 210543**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec Limits
Benzene	50.0	50.0		ug/L		100	70 - 130
Dichlorobromomethane	50.0	46.3		ug/L		93	70 - 130
Bromoform	50.0	38.1		ug/L		76	70 - 130
Bromomethane	50.0	25.4		ug/L		51	23 - 165
2-Butanone (MEK)	100	111		ug/L		111	49 - 172
Carbon disulfide	50.0	48.0		ug/L		96	54 - 132
Carbon tetrachloride	50.0	41.3		ug/L		83	70 - 130
Chlorobenzene	50.0	52.5		ug/L		105	70 - 130
Chloroethane	50.0	50.0		ug/L		100	56 - 152
Chloroform	50.0	52.0		ug/L		104	70 - 130
Chloromethane	50.0	50.7		ug/L		101	70 - 130
Chlorodibromomethane	50.0	43.3		ug/L		87	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	41.0		ug/L		82	70 - 130
Ethylene Dibromide	50.0	49.6		ug/L		99	70 - 130
Dibromomethane	50.0	51.6		ug/L		103	70 - 130
Dichlorodifluoromethane	50.0	49.9		ug/L		100	44 - 146
1,1-Dichloroethane	50.0	49.8		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	50.7		ug/L		101	70 - 130
cis-1,2-Dichloroethene	50.0	51.7		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	51.5		ug/L		103	70 - 130
1,1-Dichloroethene	50.0	52.0		ug/L		104	66 - 131
1,2-Dichloropropane	50.0	49.4		ug/L		99	70 - 130
cis-1,3-Dichloropropene	50.0	45.8		ug/L		92	70 - 130
trans-1,3-Dichloropropene	50.0	43.9		ug/L		88	70 - 130
Ethylbenzene	50.0	51.1		ug/L		102	70 - 130
2-Hexanone	100	114		ug/L		114	42 - 185
Methylene Chloride	50.0	53.2		ug/L		106	67 - 130
4-Methyl-2-pentanone (MIBK)	100	94.4		ug/L		94	70 - 130
Styrene	50.0	54.3		ug/L		109	70 - 130
1,1,1,2-Tetrachloroethane	50.0	46.0		ug/L		92	70 - 130
1,1,1,2,2-Tetrachloroethane	50.0	51.3		ug/L		103	70 - 130

# QC Sample Results

Client: Ashland Inc.  
Project/Site: Hercules Hattiesburg APIX 7/26/11

TestAmerica Job ID: 680-70758-2

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 680-210543/4**

**Matrix: Water**

**Analysis Batch: 210543**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	
							Limits	
Tetrachloroethene	50.0	54.7		ug/L		109	70 - 130	
Toluene	50.0	48.5		ug/L		97	70 - 130	
1,1,1-Trichloroethane	50.0	47.9		ug/L		96	70 - 130	
1,1,2-Trichloroethane	50.0	48.9		ug/L		98	70 - 130	
Trichloroethene	50.0	53.2		ug/L		106	70 - 130	
Trichlorofluoromethane	50.0	52.1		ug/L		104	55 - 156	
1,2,3-Trichloropropane	50.0	53.4		ug/L		107	70 - 130	
Vinyl acetate	100	95.3		ug/L		95	60 - 176	
Vinyl chloride	50.0	50.8		ug/L		102	67 - 134	
Xylenes, Total	150	159		ug/L		106	70 - 130	

Surrogate	LCS LCS		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	104		70 - 130
Dibromofluoromethane	108		70 - 130
Toluene-d8 (Surr)	101		70 - 130

**Lab Sample ID: LCSD 680-210543/5**

**Matrix: Water**

**Analysis Batch: 210543**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec.		RPD	
							Limits	RPD	RPD	Limit
Acetone	100	131		ug/L		131	26 - 180	1	50	
Benzene	50.0	48.4		ug/L		97	70 - 130	3	30	
Dichlorobromomethane	50.0	46.6		ug/L		93	70 - 130	1	30	
Bromoform	50.0	38.7		ug/L		77	70 - 130	2	30	
Bromomethane	50.0	24.5		ug/L		49	23 - 165	4	50	
2-Butanone (MEK)	100	111		ug/L		111	49 - 172	0	30	
Carbon disulfide	50.0	44.8		ug/L		90	54 - 132	7	30	
Carbon tetrachloride	50.0	40.2		ug/L		80	70 - 130	3	30	
Chlorobenzene	50.0	51.2		ug/L		102	70 - 130	3	30	
Chloroethane	50.0	38.6		ug/L		77	56 - 152	26	40	
Chloroform	50.0	49.8		ug/L		100	70 - 130	4	30	
Chloromethane	50.0	48.1		ug/L		96	70 - 130	5	30	
Chlorodibromomethane	50.0	42.6		ug/L		85	70 - 130	2	50	
1,2-Dibromo-3-Chloropropane	50.0	39.3		ug/L		79	70 - 130	4	50	
Ethylene Dibromide	50.0	52.4		ug/L		105	70 - 130	6	30	
Dibromomethane	50.0	52.1		ug/L		104	70 - 130	1	30	
Dichlorodifluoromethane	50.0	46.8		ug/L		94	44 - 146	6	50	
1,1-Dichloroethane	50.0	46.8		ug/L		94	70 - 130	6	30	
1,2-Dichloroethane	50.0	50.8		ug/L		102	70 - 130	0	30	
cis-1,2-Dichloroethene	50.0	49.7		ug/L		99	70 - 130	4	30	
trans-1,2-Dichloroethene	50.0	48.8		ug/L		98	70 - 130	5	30	
1,1-Dichloroethene	50.0	49.4		ug/L		99	66 - 131	5	30	
1,2-Dichloropropane	50.0	48.7		ug/L		97	70 - 130	2	30	
cis-1,3-Dichloropropene	50.0	46.5		ug/L		93	70 - 130	2	30	
trans-1,3-Dichloropropene	50.0	45.5		ug/L		91	70 - 130	4	50	
Ethylbenzene	50.0	48.0		ug/L		96	70 - 130	6	30	
2-Hexanone	100	112		ug/L		112	42 - 185	2	30	
Methylene Chloride	50.0	50.8		ug/L		102	67 - 130	5	30	

# QC Sample Results

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 680-210543/5

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 210543

Analyte	Spike	LCSD	LCSD	Unit	D	% Rec	% Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		
4-Methyl-2-pentanone (MIBK)	100	98.5		ug/L		98	70 - 130	4	30
Styrene	50.0	53.6		ug/L		107	70 - 130	1	30
1,1,1,2-Tetrachloroethane	50.0	44.8		ug/L		90	70 - 130	3	30
1,1,1,2-Tetrachloroethane	50.0	50.9		ug/L		102	70 - 130	1	30
Tetrachloroethene	50.0	51.6		ug/L		103	70 - 130	6	30
Toluene	50.0	49.1		ug/L		98	70 - 130	1	30
1,1,1-Trichloroethane	50.0	46.7		ug/L		93	70 - 130	3	30
1,1,2-Trichloroethane	50.0	51.6		ug/L		103	70 - 130	6	30
Trichloroethene	50.0	50.5		ug/L		101	70 - 130	5	30
Trichlorofluoromethane	50.0	48.3		ug/L		97	55 - 156	8	30
1,2,3-Trichloropropane	50.0	53.3		ug/L		107	70 - 130	0	30
Vinyl acetate	100	94.3		ug/L		94	60 - 176	1	30
Vinyl chloride	50.0	47.8		ug/L		96	67 - 134	6	30
Xylenes, Total	150	153		ug/L		102	70 - 130	4	30

Surrogate	LCSD	LCSD	Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	102		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8 (Surr)	101		70 - 130

# QC Association Summary

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

## GC/MS VOA

### Analysis Batch: 210543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-210543/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-210543/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-210543/7	Method Blank	Total/NA	Water	8260B	
680-70758-8	ASH-MW21-072611	Total/NA	Water	8260B	

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# Lab Chronicle

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

**Client Sample ID: ASH-MW21-072611**

**Lab Sample ID: 680-70758-8**

**Date Collected: 07/26/11 15:03**

**Matrix: Water**

**Date Received: 07/27/11 09:20**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	5 mL	5 mL	210543	07/30/11 07:05	AJMC	TAL SAV

**Laboratory References:**

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

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Serial Number

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

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

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Alternate Laboratory Name/Location

Phone:   
Fax:



THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE: Hercules Matt. Co.bers AP96M  
 TAL (LAB) PROJECT MANAGER: L. B. G. Galiz: a  
 CLIENT (SITE) PM: Tim Harrell  
 PROJECT NO: 11073  
 P.O. NUMBER:  
 CLIENT PHONE: 302-995-3456  
 CLIENT FAX: 995-3456  
 CLIENT NAME: Ashland Chemical  
 CLIENT E-MAIL: tdhassel@ashland.com  
 CLIENT ADDRESS: 500 Hercules Road  
 Wilmington DE 19808-1599

MATRIX TYPE: Aqueous (WATER)  
 Composite (C) OR GRAB (G) INDICATE  
 NONAQUEOUS LIQUID (OIL SOLVENT...)  
 SOLID OR SEMISOLID  
 Project Location (State) MS  
 Contract No.  
 Client Fax  
 Client Phone  
 Client E-Mail  
 Project No  
 P.O. Number  
 Client Name  
 Client Address  
 Client City/State/Zip

SAMPLE IDENTIFICATION		DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	REMARKS
7-26-11	0925	ASH-MW08	072611		7-26-11	1730				3 Day TAT Expedited
7-26-11	0857	ASH-DUP	072611							
7-26-11	0920	ASH-RSI	07262011							
7-26-11	1145	ASH-MW13	072611							
7-26-11	1251	ASH-MW17	072611							
7-26-11	1420	ASH-MW23	072611							
7-26-11	1503	ASH-MW21	072611							
7-26-11	NA	Trip Blank								Standard TAT
ASB										#06132011 date!
										Note: All Vac's Trip in one cooler

NUMBER OF CONTAINERS SUBMITTED		DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	REMARKS
3	1	2	2							
3	1	2	2							
3	1	2	2							
3	1	2	2							
3	1	2	2							
3	1	2	2							
3	1	2	2							
3	1	2	2							
3	1	2	2							

SAVANNAH LOG NO. 680 - LABORATORY REMARKS  
 70758 26, 2.8, 5.4, 3.8, 5.6, 2.0, 4.2, 5.6  
 Custody Seal #s (Coolers) 991113 -> 991140 sequentially 8 coolers  
 Note: Coolers #s

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## Login Sample Receipt Checklist

Client: Ashland Inc.

Job Number: 680-70758-2

**Login Number: 70758**

**List Source: TestAmerica Savannah**

**List Number: 1**

**Creator: Barnett, Eddie T**

Question	Answer	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	8 coolers rec'd on ice
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	Temp range 2.0 through 5.6 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?	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.	False	Samples -2, -5 and -6 had broken Liter Amber containers associated with them.
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	Insufficient volume received for MS/MSD.
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Certification Summary

Client: Ashland Inc.

TestAmerica Job ID: 680-70758-2

Project/Site: Hercules Hattiesburg APIX 7/26/11

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Savannah	A2LA	DoD ELAP		0399-01
TestAmerica Savannah	A2LA	ISO/IEC 17025		399.01
TestAmerica Savannah	Alabama	State Program	4	41450
TestAmerica Savannah	Arkansas	Arkansas DOH	6	N/A
TestAmerica Savannah	Arkansas	State Program	6	88-0692
TestAmerica Savannah	California	NELAC	9	3217CA
TestAmerica Savannah	Colorado	State Program	8	N/A
TestAmerica Savannah	Connecticut	State Program	1	PH-0161
TestAmerica Savannah	Delaware	State Program	3	N/A
TestAmerica Savannah	Florida	NELAC	4	E87052
TestAmerica Savannah	Georgia	Georgia EPD	4	N/A
TestAmerica Savannah	Georgia	State Program	4	803
TestAmerica Savannah	Guam	State Program	9	09-005r
TestAmerica Savannah	Hawaii	State Program	9	N/A
TestAmerica Savannah	Illinois	NELAC	5	200022
TestAmerica Savannah	Indiana	State Program	5	N/A
TestAmerica Savannah	Iowa	State Program	7	353
TestAmerica Savannah	Kansas	NELAC	7	E-10322
TestAmerica Savannah	Kentucky	Kentucky UST	4	18
TestAmerica Savannah	Kentucky	State Program	4	90084
TestAmerica Savannah	Louisiana	NELAC	6	30690
TestAmerica Savannah	Louisiana	NELAC	6	LA100015
TestAmerica Savannah	Maine	State Program	1	GA00006
TestAmerica Savannah	Maryland	State Program	3	250
TestAmerica Savannah	Massachusetts	State Program	1	M-GA006
TestAmerica Savannah	Michigan	State Program	5	9925
TestAmerica Savannah	Mississippi	State Program	4	N/A
TestAmerica Savannah	Montana	State Program	8	CERT0081
TestAmerica Savannah	Nebraska	State Program	7	TestAmerica-Savannah
TestAmerica Savannah	Nevada	State Program	9	GA6
TestAmerica Savannah	New Jersey	NELAC	2	GA769
TestAmerica Savannah	New Mexico	State Program	6	N/A
TestAmerica Savannah	New York	NELAC	2	10842
TestAmerica Savannah	North Carolina	North Carolina DENR	4	269
TestAmerica Savannah	North Carolina	North Carolina PHL	4	13701
TestAmerica Savannah	Oklahoma	State Program	6	9984
TestAmerica Savannah	Pennsylvania	NELAC	3	68-00474
TestAmerica Savannah	Puerto Rico	State Program	2	GA00006
TestAmerica Savannah	Rhode Island	State Program	1	LAO00244
TestAmerica Savannah	South Carolina	State Program	4	98001
TestAmerica Savannah	Tennessee	State Program	4	TN02961
TestAmerica Savannah	Texas	NELAC	6	T104704185-08-TX
TestAmerica Savannah	USDA	USDA		SAV 3-04
TestAmerica Savannah	Vermont	State Program	1	87052
TestAmerica Savannah	Virginia	State Program	3	302
TestAmerica Savannah	Washington	State Program	10	C1794
TestAmerica Savannah	West Virginia	West Virginia DEP	3	94
TestAmerica Savannah	West Virginia	West Virginia DHHR (DW)	3	9950C
TestAmerica Savannah	Wisconsin	State Program	5	999819810
TestAmerica Savannah	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.