

CSI Environmental, LLC
Environmental and Remediation Specialists

August 3, 2016

Patricia Pierre
United States Environmental Protection Agency Region 2
290 Broadway, 19th Floor West
New York, New York 10007

Re: Site-Specific Cumene Solubility and Chemical Saturation Values (C-Sat)
Summary Letter
EPA ID. CERCLA Docket No. 02-2009-2034
Hercules Incorporated, Gibbstown, New Jersey

Dear Ms. Pierre:

On behalf of Hercules Incorporated (Hercules), a wholly owned subsidiary of Ashland Inc., CSI Environmental, LLC (CSI) is pleased to submit this letter report summarizing the results derived for Site-specific cumene solubility and chemical saturation (C-Sat) values at the Former Hercules Higgins Plant, Gibbstown, New Jersey (the Site). CSI and Hercules determined that it would be beneficial to characterize cumene's site-specific behavior to support ongoing investigations. The first step entailed determination of the site-specific, soil specific estimate for cumene saturation using site-specific leaching methods adapted for the Gibbstown Site. CSI used a modified version of the New Jersey Department of the Environment (NJDEP) Guidance Document for the Use of the Soil Water Partition Equation as detailed later in this letter. For simplicity, we will refer to the site-specific, soil specific estimate for cumene saturation as the "site-specific cumene solubility" (or 'solubility' for short) throughout this document even though we acknowledge a technical distinction with NJDEP's definition of solubility. The primary goal in taking this approach is to obtain representative estimates of cumene concentrations in groundwater that is in contact with cumene saturated soil and NAPL droplets. Thus, this effort is also intended to assist in evaluating the likely range in cumene concentrations in Site groundwater and in refining estimates of cumene mass at the former chemical manufacturing Site. It is not our intent to use these site-specific cumene calculations to determine alternative remediation standards or for use in consideration of regulatory guidelines.

Once the site-specific solubility for cumene was calculated, site-specific chemical soil saturation values (C-sat) for cumene were then derived. The site-specific C-sat values represent the maximum bulk soil concentration for cumene. An additional objective for developing these site-specific values is to refine estimates of cumene mass. Separate-phase cumene droplets will form at concentrations equal to or greater than the calculated C-Sat value as the soils' cumene adsorption capacity has been exceeded.

Site-Specific Cumene Solubility Calculation

Extensive reference information for cumene is not readily available and published values express a wide range for cumene solubility that varies by as much as an order of

magnitude. As a result, the decision was reached to determine site-specific cumene solubility data to obtain more precise results that will have extensive applicability to ongoing treatability studies as well as Remedial Investigation – Feasibility Study (RI/FS) reporting. Site-specific cumene solubility data also will enable more accurate estimation of cumene mass in the subsurface which will help in prioritizing remedial strategies.

In order to determine representative site-specific values for cumene solubility, two distinct soil sampling locations were selected where significant cumene concentrations were previously identified. The two soil samples were collected at the same depths but from different soil matrix characteristics: one sample was obtained from fine grained sediments (e.g. silt) while the second sample was obtained from coarse grained sediments (e.g. sand and gravel). This approach ensured that a representative range of site-specific cumene solubility data would be obtained that incorporate soil matrices variations present at the Site.

Site-specific solubility estimates for cumene were determined to be most accurately achieved by defining solubility as the quantity of cumene that could be leached from representative soil types to onsite, uncontaminated groundwater. The leachate/solubility bench studies were conducted using onsite groundwater as the leachate medium. Groundwater for the bench study was obtained from a monitoring well with no detectable cumene concentration. As a leachate medium, it was felt that groundwater from this source would be representative of site-specific chemical and physical properties (e.g. pH, turbidity, Oxidation-Reduction Potential (ORP), etc.). Sediment samples from Clonmell Creek were not subjected to independent leachate analyses and determination of specific cumene solubility. Instead, the cumene solubility determined using the fine sediment soil matrix was selected as being representative of cumene solubility for Clonmell Creek sediment.

Collection of soil and groundwater samples was conducted in accordance with procedures outlined in the Focused Investigation Work Plan, FIWP prepared by CSI in 2009. Approximately 150 grams (g) of contaminated soil was collected from two locations shown on Figure 1. The soil matrix at CPT-44 predominantly consisted of coarse gravel while the CPT-28 contains primarily fine, silty sand. Concurrent to soil sampling, approximately (3) liters of groundwater were collected from MW-11 and used for solubility bench testing procedures applicable to each soil sample set.

Prior to executing the extraction/leachate bench testing procedures, both soil samples were separately homogenized so that each soil sample would have a consistent particle distribution. To limit contaminant volatilization, the soil samples were maintained at a maximum of 4° C to minimize aeration of volatile organic compounds (VOC) during the homogenization process discussed above and also during the sample dividing process discussed below. Each of the soil samples was divided into three subsamples. The subsamples constituted three replicate samples for solubility determinations. The three chilled subsamples were weighed and approximately 25 g of each subsample was transferred into respective zero headspace extractor (ZHE) vessels.

Each ZHE vessel was prepared for soil extraction/solubility partitioning by pressurizing the vessels to a maximum of 50 pounds per square inch (psi) using an inert gas. Any pore water released during the pressurization phase was collected, logged, and stored at a maximum temperature of 4° C for subsequent analyses. The pore water analytical report has

been included at Appendix A. With the ZHE vessel in an upright position, extraction fluid (i.e. uncontaminated groundwater from well MW-11) was pumped into each ZHE vessel while simultaneously releasing pressure from the vessel. Each ZHE vessel contained approximately 500 ml of volume and was placed on a rotary extraction apparatus for agitation for 18 +/- 2 hr. Ambient temperature during the extraction process was maintained at approximately 23°C (+/-2o C).

Following the extraction/agitation period, the extraction fluid was filtered via the glass fiber filter of the ZHE device and stored at a maximum temperature of 4° C with minimum headspace until analyzed for cumene and selected VOCs. Similarly, the solid phase from each ZHE vessel was removed and stored at a maximum temperature of 4° C until analyzed for cumene and selected VOCs.

The original soil and groundwater samples were analyzed for various parameters including VOCs, total recoverable phenols, ORP, and pH. The liquid leachates and post-leachate soils were measured for most of the same parameters as the original soil and groundwater samples. The differences in the results between the original groundwater sample from MW-11 and the various liquid leachate samples are a significant aspect to this solubility study.

Site-specific solubility values determined for cumene based on the procedures described in this letter report and defined as stated above were within the published values for cumene solubility but appeared to be soil matrix specific. Cumene solubility was 107 milligrams per liter (mg/l) when leached from fine-grained silty – sand type soil. Cumene solubility decreased to 42.6 mg/l for coarser soil matrix typology consisting of coarse sand with gravel sediments. Thus, the anticipated cumene solubility range for subsurface soil at the Site ranges from 42.6 mg/l (coarse grained soil matrix) to 107 mg/l for finer-grained soil matrices (predominantly silty sediments). Hence, a site-specific cumene solubility of 107 mg/l was used for Clonmell Creek sediment due to its silty, organic rich nature.

Site-Specific C-sat Calculation

The C-Sat value represents that maximum bulk soil concentration at the Site for cumene before separate phase cumene droplets form. In essence, C-Sat represents the ‘saturated’ bulk cumene concentration at the Site for a given soil matrix. C-Sat can be calculated using a combination of soil-specific and published values. Site-specific cumene solubility values as defined above were used to calculate the cumene C-Sat value. Specifically, cumene C-Sat values for the Site were calculated using a modification of the NJDEP soil saturation equation as described in the NJDEP Guidance Document for the Use of the Soil Water Partition Equation as follows:

$$C\text{-sat} = S/Pb (KocFocPb + Ow + H'Oa)$$

Where:

C-sat = Soil Saturation for Cumene

S = Solubility of cumene defined as the quantity of cumene leached from a given site-specific soil matrix into representative, uncontaminated Site groundwater

Pb = Dry Soil Bulk Density (Published)

Koc = Soil Organic Carbon/Water Partitioning Coefficient (Published)

Foc = Fraction Organic Carbon in Soil (Site-Specific)

Ow = Water-Filled Soil Porosity (Published)

Oa = Air-Filled Soil Porosity (Published)

H' = Dimensionless Henry's Law Constant (Published)

This equation is explained in full detail in Appendix B. C-Sat values, similar to the cumene solubility values described above, were found to vary widely and were soil matrices specific. The C-Sat value derived from the finer soil matrix was 149.37 milligrams per kilogram (mg/kg) while the C-Sat value from the coarse gravel soil matrix was calculated to be 98.11 mg/kg. Thus, the finer the soil type, the higher the site-specific cumene C-Sat value. Stated otherwise, finer grained soil matrices at the Site are capable of 'holding' or retaining more cumene before the soil column becomes saturated with cumene and separate phase droplets form. A summary of site-specific solubility and C-Sat values derived from the studies described in this letter report is provided as follows:

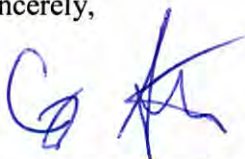
Table 1 – Site-Specific Range of Solubility and C-Sat of Cumene

	Fine Soil	Coarse Soil
Site-Specific Cumene Solubility	107 mg/L	42.6 mg/L
Site-Specific Cumene C-sat	149.37 mg/kg	98.11mg/kg

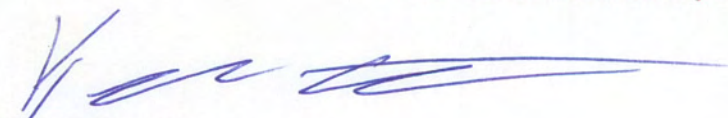
In summary, it is believed that defining cumene solubility for the Site, as detailed above, and as calculated using the modified C-Sat soil saturation equation, also as described above, has resulted in a site-specific, soil-specific estimate of cumene saturation. These site-specific estimates of cumene saturation have been subsequently used in a related task to revise previous estimates of cumene mass at the Gibbstown Site. In the related project, C-Sat values for specific soil types at the Site were used to estimate residual cumene NAPL (non-aqueous phase liquid) concentrations. Subsequently, the revised estimate of total cumene mass across the Site was determined by combining previous estimates of cumene mass in soil and groundwater with estimates of cumene NAPL as calculated from solubility studies as described above.

Please do not hesitate to call John Hoffman of Ashland at (302) 995-3233 or me at (443) 688-6453 should you have any questions or require additional information.

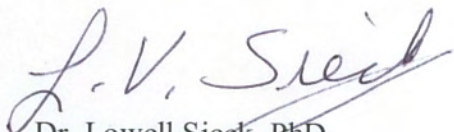
Sincerely,



Craig S. Stevens, PG
Principal

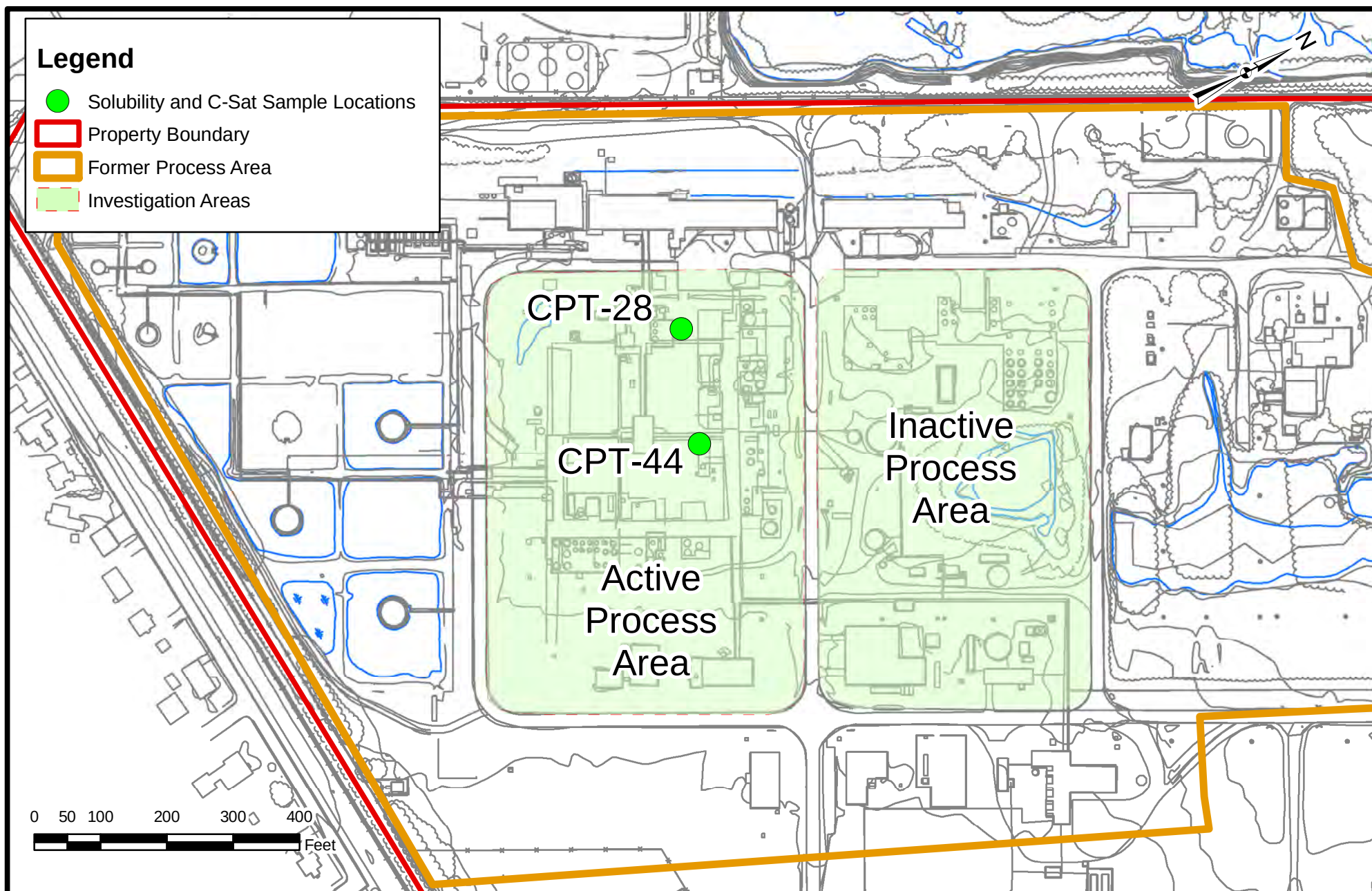


Kevin Costello
Sr. Project Scientist



Dr. Lowell Sieck, PhD
Sr. Project Chemist

cc: John Hoffman; Ashland Chemical Company
Erica Bergman; NJDEP



CSI Environmental, LLC
401 Headquarter Drive, Suite 203
Millersville, MD 21108
443-688-6453

Locations of Solubility and C-Sat Study Samples
Former Higgins Plant, Gibbstown, NJ
Hercules Incorporated
Gibbstown, New Jersey

Figure
1

APPENDIX A

PORE WATER LABORATORY REPORT

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: 680-91684-2

TestAmerica Sample Delivery Group: HGB082

Client Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

For:

Ashland Inc.

Ashland Hercules Research Center

500 Hercules Rd Bldg 8139

Wilmington, Delaware 19808

Attn: John Hoffman

Kathryn Smith

Authorized for release by:

7/18/2013 2:41:44 PM

Kathryn Smith, Project Manager II

kathy.smith@testamericainc.com

LINKS

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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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Job ID: 680-91684-2

Laboratory: TestAmerica Savannah

Narrative

CASE NARRATIVE

Client: Ashland Inc.

Project: Gibbstown Clonmell Crk Suppl. (PP)

Report Number: 680-91684-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 06/25/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt were -27.2° C and 2.4° C.

Except:

The container label for the following samples) did not match the information listed on the Chain-of-Custody: RB-1 (680-91684-38). per the client D.Ferris, the COC is correct, ID is RB-1.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples PP-6A (680-91684-22), PP-6B (680-91684-23), PP-5A (680-91684-24), PP-5B (680-91684-25), PP-4A (680-91684-26), PP-4B (680-91684-27), PP-3A (680-91684-28), PP-3B (680-91684-29), PP-2A (680-91684-30), PP-2B (680-91684-31), PP-1A (680-91684-32), PP-1B (680-91684-33), PP-100A (680-91684-34), PP-100B (680-91684-35), EB-1 (680-91684-36), Trip Blank Lot # 052713) (680-91684-37) and RB-1 (680-91684-38) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 07/02/2013 and 07/03/2013.

Samples PP-4B (680-91684-27)[5X], PP-100A (680-91684-34)[2X] and PP-100B (680-91684-35)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: Ashland Inc.

Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2

SDG: HGB082

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-91684-22	PP-6A	Water	06/24/13 10:00	06/25/13 09:30
680-91684-23	PP-6B	Water	06/24/13 10:05	06/25/13 09:30
680-91684-24	PP-5A	Water	06/24/13 10:25	06/25/13 09:30
680-91684-25	PP-5B	Water	06/24/13 10:30	06/25/13 09:30
680-91684-26	PP-4A	Water	06/24/13 10:45	06/25/13 09:30
680-91684-27	PP-4B	Water	06/24/13 10:50	06/25/13 09:30
680-91684-28	PP-3A	Water	06/24/13 10:55	06/25/13 09:30
680-91684-29	PP-3B	Water	06/24/13 11:00	06/25/13 09:30
680-91684-30	PP-2A	Water	06/24/13 11:30	06/25/13 09:30
680-91684-31	PP-2B	Water	06/24/13 11:35	06/25/13 09:30
680-91684-32	PP-1A	Water	06/24/13 11:55	06/25/13 09:30
680-91684-33	PP-1B	Water	06/24/13 12:00	06/25/13 09:30
680-91684-34	PP-100A	Water	06/24/13 00:00	06/25/13 09:30
680-91684-35	PP-100B	Water	06/24/13 00:00	06/25/13 09:30
680-91684-36	EB-1	Water	06/24/13 09:55	06/25/13 09:30
680-91684-37	Trip Blank Lot # 052713)	Water	06/24/13 00:00	06/25/13 09:30
680-91684-38	RB-1	Water	06/24/13 12:15	06/25/13 09:30

Method Summary

Client: Ashland Inc.

Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2

SDG: HGB082

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

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.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

GC/MS VOA TICs

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-6A

Lab Sample ID: 680-91684-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	180		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	1.7	J	10	1.0	ug/L	1		8260B	Total/NA
Methyl acetate	1.7		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	4.6		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-6B

Lab Sample ID: 680-91684-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	230		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	1.5	J	10	1.0	ug/L	1		8260B	Total/NA
Carbon disulfide	0.63	J	2.0	0.60	ug/L	1		8260B	Total/NA
Methyl acetate	2.0		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	3.2		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-5A

Lab Sample ID: 680-91684-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	110		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	7.9	J	10	1.0	ug/L	1		8260B	Total/NA
Methyl acetate	1.1		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	5.5		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-5B

Lab Sample ID: 680-91684-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	310		25	5.0	ug/L	1		8260B	Total/NA
Benzene	0.38	J	1.0	0.25	ug/L	1		8260B	Total/NA
2-Butanone	1.9	J	10	1.0	ug/L	1		8260B	Total/NA
Isopropylbenzene	150		1.0	0.10	ug/L	1		8260B	Total/NA
Methyl acetate	4.0		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	11		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-4A

Lab Sample ID: 680-91684-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	210		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	1.3	J	10	1.0	ug/L	1		8260B	Total/NA
Chloroform	0.20	J	1.0	0.14	ug/L	1		8260B	Total/NA
Ethylbenzene	0.11	J	1.0	0.11	ug/L	1		8260B	Total/NA
Isopropylbenzene	61		1.0	0.10	ug/L	1		8260B	Total/NA
Toluene	0.34	J	1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-4B

Lab Sample ID: 680-91684-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	170		130	25	ug/L	5		8260B	Total/NA
Benzene	5.4		5.0	1.3	ug/L	5		8260B	Total/NA
Ethylbenzene	2.5	J	5.0	0.55	ug/L	5		8260B	Total/NA
Isopropylbenzene	210		5.0	0.50	ug/L	5		8260B	Total/NA
Toluene	2.2	J	5.0	1.7	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah

Detection Summary

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-3A

Lab Sample ID: 680-91684-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	170		25	5.0	ug/L	1		8260B	Total/NA
Methyl acetate	2.2		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	8.1		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-3B

Lab Sample ID: 680-91684-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	310		25	5.0	ug/L	1		8260B	Total/NA
Benzene	2.0		1.0	0.25	ug/L	1		8260B	Total/NA
2-Butanone	1.3	J	10	1.0	ug/L	1		8260B	Total/NA
Isopropylbenzene	49		1.0	0.10	ug/L	1		8260B	Total/NA
Methyl acetate	3.8		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	3.3		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-2A

Lab Sample ID: 680-91684-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	210		25	5.0	ug/L	1		8260B	Total/NA
Bromoform	0.54	J	1.0	0.50	ug/L	1		8260B	Total/NA
2-Butanone	2.4	J	10	1.0	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.12	J	1.0	0.10	ug/L	1		8260B	Total/NA
Methyl acetate	3.7		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	7.9		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-2B

Lab Sample ID: 680-91684-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	190		25	5.0	ug/L	1		8260B	Total/NA
Chloroform	0.19	J	1.0	0.14	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.19	J	1.0	0.10	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.11	J	1.0	0.10	ug/L	1		8260B	Total/NA
Toluene	3.0		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-1A

Lab Sample ID: 680-91684-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	250		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	3.5	J	10	1.0	ug/L	1		8260B	Total/NA
Carbon disulfide	0.68	J	2.0	0.60	ug/L	1		8260B	Total/NA
Cyclohexane	0.31	J	1.0	0.25	ug/L	1		8260B	Total/NA
Toluene	4.1		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: PP-1B

Lab Sample ID: 680-91684-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	290		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	1.9	J	10	1.0	ug/L	1		8260B	Total/NA
Methyl acetate	2.4		1.0	0.19	ug/L	1		8260B	Total/NA
Toluene	4.6		1.0	0.33	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah

Detection Summary

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100A

Lab Sample ID: 680-91684-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	270		25	5.0	ug/L	1		8260B	Total/NA
Benzene	2.4		1.0	0.25	ug/L	1		8260B	Total/NA
2-Butanone	1.7	J	10	1.0	ug/L	1		8260B	Total/NA
Ethylbenzene	1.1		1.0	0.11	ug/L	1		8260B	Total/NA
Isopropylbenzene	220	E	1.0	0.10	ug/L	1		8260B	Total/NA
Toluene	2.6		1.0	0.33	ug/L	1		8260B	Total/NA
Xylenes, Total	0.63	J	2.0	0.20	ug/L	1		8260B	Total/NA
Acetone - DL	310		50	10	ug/L	2		8260B	Total/NA
Benzene - DL	2.9		2.0	0.50	ug/L	2		8260B	Total/NA
2-Butanone - DL	2.1	J	20	2.0	ug/L	2		8260B	Total/NA
Ethylbenzene - DL	1.2	J	2.0	0.22	ug/L	2		8260B	Total/NA
Isopropylbenzene - DL	250		2.0	0.20	ug/L	2		8260B	Total/NA
Toluene - DL	3.1		2.0	0.66	ug/L	2		8260B	Total/NA
Xylenes, Total - DL	0.67	J	4.0	0.40	ug/L	2		8260B	Total/NA

Client Sample ID: PP-100B

Lab Sample ID: 680-91684-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	620		50	10	ug/L	2		8260B	Total/NA
Benzene	3.3		2.0	0.50	ug/L	2		8260B	Total/NA
Ethylbenzene	2.3		2.0	0.22	ug/L	2		8260B	Total/NA
Isopropylbenzene	220		2.0	0.20	ug/L	2		8260B	Total/NA
Methyl acetate	5.9		2.0	0.38	ug/L	2		8260B	Total/NA
Tetrachloroethene	0.65	J	2.0	0.30	ug/L	2		8260B	Total/NA
Toluene	9.4		2.0	0.66	ug/L	2		8260B	Total/NA
Trichloroethene	0.69	J	2.0	0.26	ug/L	2		8260B	Total/NA
Xylenes, Total	0.79	J	4.0	0.40	ug/L	2		8260B	Total/NA

Client Sample ID: EB-1

Lab Sample ID: 680-91684-36

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	190		25	5.0	ug/L	1		8260B	Total/NA
2-Butanone	1.2	J	10	1.0	ug/L	1		8260B	Total/NA
Carbon disulfide	0.63	J	2.0	0.60	ug/L	1		8260B	Total/NA
Toluene	2.5		1.0	0.33	ug/L	1		8260B	Total/NA

Client Sample ID: Trip Blank Lot # 052713)

Lab Sample ID: 680-91684-37

No Detections.

Client Sample ID: RB-1

Lab Sample ID: 680-91684-38

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-6A

Lab Sample ID: 680-91684-22

Date Collected: 06/24/13 10:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	180		25	5.0	ug/L			07/02/13 16:18	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 16:18	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:18	1
2-Butanone	1.7	J	10	1.0	ug/L			07/02/13 16:18	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 16:18	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 16:18	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:18	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 16:18	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 16:18	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:18	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 16:18	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 16:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 16:18	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:18	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 16:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 16:18	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 16:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 16:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 16:18	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 16:18	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 16:18	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 16:18	1
Methyl acetate	1.7		1.0	0.19	ug/L			07/02/13 16:18	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 16:18	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 16:18	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 16:18	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 16:18	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 16:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 16:18	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:18	1
Toluene	4.6		1.0	0.33	ug/L			07/02/13 16:18	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 16:18	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 16:18	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:18	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 16:18	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 16:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:18	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-6A

Lab Sample ID: 680-91684-22

Date Collected: 06/24/13 10:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:18	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 16:18</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>101</i>		<i>70 - 130</i>					<i>07/02/13 16:18</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 16:18</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 16:18</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-6B

Lab Sample ID: 680-91684-23

Date Collected: 06/24/13 10:05

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	230		25	5.0	ug/L			07/02/13 16:48	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 16:48	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:48	1
2-Butanone	1.5	J	10	1.0	ug/L			07/02/13 16:48	1
Carbon disulfide	0.63	J	2.0	0.60	ug/L			07/02/13 16:48	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 16:48	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:48	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 16:48	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 16:48	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:48	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 16:48	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 16:48	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 16:48	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:48	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 16:48	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 16:48	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 16:48	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 16:48	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 16:48	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 16:48	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 16:48	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 16:48	1
Methyl acetate	2.0		1.0	0.19	ug/L			07/02/13 16:48	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 16:48	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 16:48	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 16:48	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 16:48	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 16:48	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 16:48	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:48	1
Toluene	3.2		1.0	0.33	ug/L			07/02/13 16:48	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:48	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 16:48	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 16:48	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:48	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 16:48	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 16:48	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:48	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-6B

Lab Sample ID: 680-91684-23

Date Collected: 06/24/13 10:05

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:48	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 16:48</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>100</i>		<i>70 - 130</i>					<i>07/02/13 16:48</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>106</i>		<i>70 - 130</i>					<i>07/02/13 16:48</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 16:48</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-5A

Lab Sample ID: 680-91684-24

Date Collected: 06/24/13 10:25

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	110		25	5.0	ug/L			07/02/13 17:17	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 17:17	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 17:17	1
2-Butanone	7.9	J	10	1.0	ug/L			07/02/13 17:17	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 17:17	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 17:17	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 17:17	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 17:17	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 17:17	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 17:17	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 17:17	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 17:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 17:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 17:17	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 17:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 17:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 17:17	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 17:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 17:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 17:17	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 17:17	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 17:17	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 17:17	1
Methyl acetate	1.1		1.0	0.19	ug/L			07/02/13 17:17	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 17:17	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 17:17	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 17:17	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 17:17	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 17:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 17:17	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 17:17	1
Toluene	5.5		1.0	0.33	ug/L			07/02/13 17:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 17:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 17:17	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 17:17	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 17:17	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 17:17	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 17:17	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 17:17	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-5A

Lab Sample ID: 680-91684-24

Date Collected: 06/24/13 10:25

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 17:17	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 17:17</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>102</i>		<i>70 - 130</i>					<i>07/02/13 17:17</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>104</i>		<i>70 - 130</i>					<i>07/02/13 17:17</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 17:17</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-5B

Lab Sample ID: 680-91684-25

Date Collected: 06/24/13 10:30

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	310		25	5.0	ug/L			07/02/13 17:47	1
Benzene	0.38	J	1.0	0.25	ug/L			07/02/13 17:47	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 17:47	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 17:47	1
2-Butanone	1.9	J	10	1.0	ug/L			07/02/13 17:47	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 17:47	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 17:47	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 17:47	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 17:47	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 17:47	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 17:47	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 17:47	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 17:47	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 17:47	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 17:47	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 17:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 17:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 17:47	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 17:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 17:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 17:47	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 17:47	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 17:47	1
Isopropylbenzene	150		1.0	0.10	ug/L			07/02/13 17:47	1
Methyl acetate	4.0		1.0	0.19	ug/L			07/02/13 17:47	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 17:47	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 17:47	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 17:47	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 17:47	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 17:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 17:47	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 17:47	1
Toluene	11		1.0	0.33	ug/L			07/02/13 17:47	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 17:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 17:47	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 17:47	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 17:47	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 17:47	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 17:47	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 17:47	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-5B

Lab Sample ID: 680-91684-25

Date Collected: 06/24/13 10:30

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 17:47	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 17:47</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>104</i>		<i>70 - 130</i>					<i>07/02/13 17:47</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 17:47</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 17:47</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-4A

Lab Sample ID: 680-91684-26

Date Collected: 06/24/13 10:45

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	210		25	5.0	ug/L			07/02/13 18:17	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 18:17	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 18:17	1
2-Butanone	1.3	J	10	1.0	ug/L			07/02/13 18:17	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 18:17	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 18:17	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 18:17	1
Chloroform	0.20	J	1.0	0.14	ug/L			07/02/13 18:17	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 18:17	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 18:17	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 18:17	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 18:17	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 18:17	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 18:17	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 18:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 18:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 18:17	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 18:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 18:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 18:17	1
Ethylbenzene	0.11	J	1.0	0.11	ug/L			07/02/13 18:17	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 18:17	1
Isopropylbenzene	61		1.0	0.10	ug/L			07/02/13 18:17	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 18:17	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 18:17	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 18:17	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 18:17	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 18:17	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 18:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 18:17	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 18:17	1
Toluene	0.34	J	1.0	0.33	ug/L			07/02/13 18:17	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 18:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 18:17	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 18:17	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 18:17	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 18:17	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 18:17	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 18:17	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-4A

Lab Sample ID: 680-91684-26

Date Collected: 06/24/13 10:45

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 18:17	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 18:17</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>104</i>		<i>70 - 130</i>					<i>07/02/13 18:17</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 18:17</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 18:17</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-4B

Lab Sample ID: 680-91684-27

Date Collected: 06/24/13 10:50

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	170		130	25	ug/L			07/02/13 15:31	5
Benzene	5.4		5.0	1.3	ug/L			07/02/13 15:31	5
Bromodichloromethane	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
Bromoform	5.0	U	5.0	2.5	ug/L			07/02/13 15:31	5
Bromomethane	25	U	25	10	ug/L			07/02/13 15:31	5
2-Butanone	50	U	50	5.0	ug/L			07/02/13 15:31	5
Carbon disulfide	10	U	10	3.0	ug/L			07/02/13 15:31	5
Carbon tetrachloride	5.0	U	5.0	2.5	ug/L			07/02/13 15:31	5
Chlorobenzene	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
Chloroethane	25	U	25	10	ug/L			07/02/13 15:31	5
Chloroform	5.0	U	5.0	0.70	ug/L			07/02/13 15:31	5
Chloromethane	5.0	U	5.0	1.7	ug/L			07/02/13 15:31	5
Cyclohexane	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
Dibromochloromethane	5.0	U	5.0	0.50	ug/L			07/02/13 15:31	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.2	ug/L			07/02/13 15:31	5
1,2-Dibromoethane	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
1,2-Dichlorobenzene	5.0	U	5.0	1.1	ug/L			07/02/13 15:31	5
1,3-Dichlorobenzene	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
1,4-Dichlorobenzene	5.0	U	5.0	1.4	ug/L			07/02/13 15:31	5
Dichlorodifluoromethane	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
1,1-Dichloroethane	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
1,2-Dichloroethane	5.0	U	5.0	0.50	ug/L			07/02/13 15:31	5
1,1-Dichloroethene	5.0	U	5.0	0.55	ug/L			07/02/13 15:31	5
cis-1,2-Dichloroethene	5.0	U	5.0	0.75	ug/L			07/02/13 15:31	5
trans-1,2-Dichloroethene	5.0	U	5.0	1.0	ug/L			07/02/13 15:31	5
1,2-Dichloropropane	5.0	U	5.0	0.65	ug/L			07/02/13 15:31	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.55	ug/L			07/02/13 15:31	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.1	ug/L			07/02/13 15:31	5
Ethylbenzene	2.5	J	5.0	0.55	ug/L			07/02/13 15:31	5
2-Hexanone	50	U	50	5.0	ug/L			07/02/13 15:31	5
Isopropylbenzene	210		5.0	0.50	ug/L			07/02/13 15:31	5
Methyl acetate	5.0	U	5.0	0.95	ug/L			07/02/13 15:31	5
Methylcyclohexane	5.0	U	5.0	0.50	ug/L			07/02/13 15:31	5
Methylene Chloride	25	U	25	5.0	ug/L			07/02/13 15:31	5
4-Methyl-2-pentanone	50	U	50	5.0	ug/L			07/02/13 15:31	5
Methyl tert-butyl ether	50	U	50	1.0	ug/L			07/02/13 15:31	5
Styrene	5.0	U	5.0	0.55	ug/L			07/02/13 15:31	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	0.90	ug/L			07/02/13 15:31	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L			07/02/13 15:31	5
Toluene	2.2	J	5.0	1.7	ug/L			07/02/13 15:31	5
1,2,4-Trichlorobenzene	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
1,1,1-Trichloroethane	5.0	U	5.0	2.5	ug/L			07/02/13 15:31	5
1,1,2-Trichloroethane	5.0	U	5.0	0.65	ug/L			07/02/13 15:31	5
Trichloroethene	5.0	U	5.0	0.65	ug/L			07/02/13 15:31	5
Trichlorofluoromethane	5.0	U	5.0	1.3	ug/L			07/02/13 15:31	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	2.5	ug/L			07/02/13 15:31	5
Vinyl chloride	5.0	U	5.0	0.90	ug/L			07/02/13 15:31	5
Xylenes, Total	10	U	10	1.0	ug/L			07/02/13 15:31	5
1,2,4-Trimethylbenzene	5.0	U	5.0	1.7	ug/L			07/02/13 15:31	5

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-4B

Lab Sample ID: 680-91684-27

Date Collected: 06/24/13 10:50

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	5.0	U	5.0	1.7	ug/L			07/02/13 15:31	5
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>5.0</i>	<i>U</i>	<i>ug/L</i>		<i>0.00</i>	<i>98-83-9</i>		<i>07/02/13 15:31</i>	<i>5</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>98</i>		<i>70 - 130</i>					<i>07/02/13 15:31</i>	<i>5</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 15:31</i>	<i>5</i>
<i>Dibromofluoromethane</i>	<i>95</i>		<i>70 - 130</i>					<i>07/02/13 15:31</i>	<i>5</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-3A

Lab Sample ID: 680-91684-28

Date Collected: 06/24/13 10:55

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	170		25	5.0	ug/L			07/02/13 18:46	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 18:46	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 18:46	1
2-Butanone	10	U	10	1.0	ug/L			07/02/13 18:46	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 18:46	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 18:46	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 18:46	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 18:46	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 18:46	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 18:46	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 18:46	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 18:46	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 18:46	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 18:46	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 18:46	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 18:46	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 18:46	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 18:46	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 18:46	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 18:46	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 18:46	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 18:46	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 18:46	1
Methyl acetate	2.2		1.0	0.19	ug/L			07/02/13 18:46	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 18:46	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 18:46	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 18:46	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 18:46	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 18:46	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 18:46	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 18:46	1
Toluene	8.1		1.0	0.33	ug/L			07/02/13 18:46	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 18:46	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 18:46	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 18:46	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 18:46	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 18:46	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 18:46	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 18:46	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-3A

Lab Sample ID: 680-91684-28

Date Collected: 06/24/13 10:55

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 18:46	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 18:46</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>101</i>		<i>70 - 130</i>					<i>07/02/13 18:46</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>104</i>		<i>70 - 130</i>					<i>07/02/13 18:46</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 18:46</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-3B

Lab Sample ID: 680-91684-29

Date Collected: 06/24/13 11:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	310		25	5.0	ug/L			07/02/13 19:16	1
Benzene	2.0		1.0	0.25	ug/L			07/02/13 19:16	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 19:16	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 19:16	1
2-Butanone	1.3	J	10	1.0	ug/L			07/02/13 19:16	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 19:16	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 19:16	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 19:16	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 19:16	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 19:16	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 19:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 19:16	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 19:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 19:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 19:16	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 19:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 19:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 19:16	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 19:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 19:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 19:16	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 19:16	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 19:16	1
Isopropylbenzene	49		1.0	0.10	ug/L			07/02/13 19:16	1
Methyl acetate	3.8		1.0	0.19	ug/L			07/02/13 19:16	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 19:16	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 19:16	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 19:16	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 19:16	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 19:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 19:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 19:16	1
Toluene	3.3		1.0	0.33	ug/L			07/02/13 19:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 19:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 19:16	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 19:16	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 19:16	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 19:16	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 19:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 19:16	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-3B

Lab Sample ID: 680-91684-29

Date Collected: 06/24/13 11:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 19:16	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 19:16</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 19:16</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>106</i>		<i>70 - 130</i>					<i>07/02/13 19:16</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 19:16</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-2A

Lab Sample ID: 680-91684-30

Date Collected: 06/24/13 11:30

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	210		25	5.0	ug/L			07/02/13 19:45	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
Bromoform	0.54	J	1.0	0.50	ug/L			07/02/13 19:45	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 19:45	1
2-Butanone	2.4	J	10	1.0	ug/L			07/02/13 19:45	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 19:45	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 19:45	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 19:45	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 19:45	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 19:45	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 19:45	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 19:45	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 19:45	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 19:45	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 19:45	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 19:45	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 19:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 19:45	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 19:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 19:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 19:45	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 19:45	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 19:45	1
Isopropylbenzene	0.12	J	1.0	0.10	ug/L			07/02/13 19:45	1
Methyl acetate	3.7		1.0	0.19	ug/L			07/02/13 19:45	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 19:45	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 19:45	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 19:45	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 19:45	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 19:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 19:45	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 19:45	1
Toluene	7.9		1.0	0.33	ug/L			07/02/13 19:45	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 19:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 19:45	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 19:45	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 19:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 19:45	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 19:45	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 19:45	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 19:45	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-2A

Lab Sample ID: 680-91684-30

Date Collected: 06/24/13 11:30

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 19:45	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 19:45</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>104</i>		<i>70 - 130</i>					<i>07/02/13 19:45</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 19:45</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>106</i>		<i>70 - 130</i>					<i>07/02/13 19:45</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-2B

Lab Sample ID: 680-91684-31

Date Collected: 06/24/13 11:35

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	190		25	5.0	ug/L			07/02/13 18:16	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 18:16	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 18:16	1
2-Butanone	10	U	10	1.0	ug/L			07/02/13 18:16	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 18:16	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 18:16	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 18:16	1
Chloroform	0.19	J	1.0	0.14	ug/L			07/02/13 18:16	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 18:16	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 18:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 18:16	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 18:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 18:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
1,2-Dichloroethane	0.19	J	1.0	0.10	ug/L			07/02/13 18:16	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 18:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 18:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 18:16	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 18:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 18:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 18:16	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 18:16	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 18:16	1
Isopropylbenzene	0.11	J	1.0	0.10	ug/L			07/02/13 18:16	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 18:16	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 18:16	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 18:16	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 18:16	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 18:16	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 18:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 18:16	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 18:16	1
Toluene	3.0		1.0	0.33	ug/L			07/02/13 18:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 18:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 18:16	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 18:16	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 18:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 18:16	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 18:16	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 18:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 18:16	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-2B

Lab Sample ID: 680-91684-31

Date Collected: 06/24/13 11:35

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 18:16	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>		<i>0.00</i>	<i>98-83-9</i>		<i>07/02/13 18:16</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>99</i>		<i>70 - 130</i>					<i>07/02/13 18:16</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>106</i>		<i>70 - 130</i>					<i>07/02/13 18:16</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>97</i>		<i>70 - 130</i>					<i>07/02/13 18:16</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-1A

Lab Sample ID: 680-91684-32

Date Collected: 06/24/13 11:55

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	250		25	5.0	ug/L			07/02/13 16:37	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 16:37	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:37	1
2-Butanone	3.5	J	10	1.0	ug/L			07/02/13 16:37	1
Carbon disulfide	0.68	J	2.0	0.60	ug/L			07/02/13 16:37	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 16:37	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:37	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 16:37	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 16:37	1
Cyclohexane	0.31	J	1.0	0.25	ug/L			07/02/13 16:37	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 16:37	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 16:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 16:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:37	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 16:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 16:37	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 16:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 16:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 16:37	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 16:37	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 16:37	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 16:37	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 16:37	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 16:37	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 16:37	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 16:37	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 16:37	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 16:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 16:37	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:37	1
Toluene	4.1		1.0	0.33	ug/L			07/02/13 16:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 16:37	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 16:37	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:37	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 16:37	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 16:37	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:37	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-1A

Lab Sample ID: 680-91684-32

Date Collected: 06/24/13 11:55

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:37	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>		<i>0.00</i>	<i>98-83-9</i>		<i>07/02/13 16:37</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>94</i>		<i>70 - 130</i>					<i>07/02/13 16:37</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>104</i>		<i>70 - 130</i>					<i>07/02/13 16:37</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>100</i>		<i>70 - 130</i>					<i>07/02/13 16:37</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-1B

Lab Sample ID: 680-91684-33

Date Collected: 06/24/13 12:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	290		25	5.0	ug/L			07/02/13 16:59	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 16:59	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:59	1
2-Butanone	1.9	J	10	1.0	ug/L			07/02/13 16:59	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 16:59	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 16:59	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 16:59	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 16:59	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 16:59	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:59	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 16:59	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 16:59	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 16:59	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 16:59	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 16:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 16:59	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 16:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 16:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 16:59	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 16:59	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 16:59	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 16:59	1
Methyl acetate	2.4		1.0	0.19	ug/L			07/02/13 16:59	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 16:59	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 16:59	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 16:59	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 16:59	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 16:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 16:59	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 16:59	1
Toluene	4.6		1.0	0.33	ug/L			07/02/13 16:59	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 16:59	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 16:59	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 16:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 16:59	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 16:59	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 16:59	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:59	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-1B

Lab Sample ID: 680-91684-33

Date Collected: 06/24/13 12:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 16:59	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>		<i>0.00</i>	<i>98-83-9</i>		<i>07/02/13 16:59</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>98</i>		<i>70 - 130</i>					<i>07/02/13 16:59</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>107</i>		<i>70 - 130</i>					<i>07/02/13 16:59</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>98</i>		<i>70 - 130</i>					<i>07/02/13 16:59</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100A

Lab Sample ID: 680-91684-34

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	270		25	5.0	ug/L			07/02/13 17:20	1
Benzene	2.4		1.0	0.25	ug/L			07/02/13 17:20	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 17:20	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 17:20	1
2-Butanone	1.7	J	10	1.0	ug/L			07/02/13 17:20	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 17:20	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 17:20	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 17:20	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 17:20	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 17:20	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 17:20	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 17:20	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 17:20	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 17:20	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 17:20	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 17:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 17:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 17:20	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 17:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 17:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 17:20	1
Ethylbenzene	1.1		1.0	0.11	ug/L			07/02/13 17:20	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 17:20	1
Isopropylbenzene	220	E	1.0	0.10	ug/L			07/02/13 17:20	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 17:20	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 17:20	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 17:20	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 17:20	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 17:20	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 17:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 17:20	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 17:20	1
Toluene	2.6		1.0	0.33	ug/L			07/02/13 17:20	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 17:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 17:20	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 17:20	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 17:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 17:20	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 17:20	1
Xylenes, Total	0.63	J	2.0	0.20	ug/L			07/02/13 17:20	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 17:20	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100A

Lab Sample ID: 680-91684-34

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 17:20	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>	<i>-</i>	<i>0.00</i>	<i>98-83-9</i>		<i>07/02/13 17:20</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>99</i>		<i>70 - 130</i>					<i>07/02/13 17:20</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>106</i>		<i>70 - 130</i>					<i>07/02/13 17:20</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>96</i>		<i>70 - 130</i>					<i>07/02/13 17:20</i>	<i>1</i>

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	310		50	10	ug/L			07/03/13 16:17	2
Benzene	2.9		2.0	0.50	ug/L			07/03/13 16:17	2
Bromodichloromethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
Bromoform	2.0	U	2.0	1.0	ug/L			07/03/13 16:17	2
Bromomethane	10	U	10	4.0	ug/L			07/03/13 16:17	2
2-Butanone	2.1	J	20	2.0	ug/L			07/03/13 16:17	2
Carbon disulfide	4.0	U	4.0	1.2	ug/L			07/03/13 16:17	2
Carbon tetrachloride	2.0	U	2.0	1.0	ug/L			07/03/13 16:17	2
Chlorobenzene	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
Chloroethane	10	U	10	4.0	ug/L			07/03/13 16:17	2
Chloroform	2.0	U	2.0	0.28	ug/L			07/03/13 16:17	2
Chloromethane	2.0	U	2.0	0.66	ug/L			07/03/13 16:17	2
Cyclohexane	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
Dibromochloromethane	2.0	U	2.0	0.20	ug/L			07/03/13 16:17	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.88	ug/L			07/03/13 16:17	2
1,2-Dibromoethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
1,2-Dichlorobenzene	2.0	U	2.0	0.42	ug/L			07/03/13 16:17	2
1,3-Dichlorobenzene	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
1,4-Dichlorobenzene	2.0	U	2.0	0.56	ug/L			07/03/13 16:17	2
Dichlorodifluoromethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
1,1-Dichloroethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
1,2-Dichloroethane	2.0	U	2.0	0.20	ug/L			07/03/13 16:17	2
1,1-Dichloroethene	2.0	U	2.0	0.22	ug/L			07/03/13 16:17	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.30	ug/L			07/03/13 16:17	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.40	ug/L			07/03/13 16:17	2
1,2-Dichloropropane	2.0	U	2.0	0.26	ug/L			07/03/13 16:17	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.22	ug/L			07/03/13 16:17	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.42	ug/L			07/03/13 16:17	2
Ethylbenzene	1.2	J	2.0	0.22	ug/L			07/03/13 16:17	2
2-Hexanone	20	U	20	2.0	ug/L			07/03/13 16:17	2
Isopropylbenzene	250		2.0	0.20	ug/L			07/03/13 16:17	2
Methyl acetate	2.0	U	2.0	0.38	ug/L			07/03/13 16:17	2
Methylcyclohexane	2.0	U	2.0	0.20	ug/L			07/03/13 16:17	2
Methylene Chloride	10	U	10	2.0	ug/L			07/03/13 16:17	2
4-Methyl-2-pentanone	20	U	20	2.0	ug/L			07/03/13 16:17	2
Methyl tert-butyl ether	20	U	20	0.40	ug/L			07/03/13 16:17	2
Styrene	2.0	U	2.0	0.22	ug/L			07/03/13 16:17	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.36	ug/L			07/03/13 16:17	2

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100A

Lab Sample ID: 680-91684-34

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	2.0	U	2.0	0.30	ug/L			07/03/13 16:17	2
Toluene	3.1		2.0	0.66	ug/L			07/03/13 16:17	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
1,1,1-Trichloroethane	2.0	U	2.0	1.0	ug/L			07/03/13 16:17	2
1,1,2-Trichloroethane	2.0	U	2.0	0.26	ug/L			07/03/13 16:17	2
Trichloroethene	2.0	U	2.0	0.26	ug/L			07/03/13 16:17	2
Trichlorofluoromethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:17	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	1.0	ug/L			07/03/13 16:17	2
Vinyl chloride	2.0	U	2.0	0.36	ug/L			07/03/13 16:17	2
Xylenes, Total	0.67	J	4.0	0.40	ug/L			07/03/13 16:17	2
1,2,4-Trimethylbenzene	2.0	U	2.0	0.66	ug/L			07/03/13 16:17	2
1,3,5-Trimethylbenzene	2.0	U	2.0	0.66	ug/L			07/03/13 16:17	2

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
<i>a</i> -Methylstyrene TIC	2.0	U	ug/L		0.00	98-83-9		07/03/13 16:17	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		70 - 130		07/03/13 16:17	2
Toluene-d8 (Surr)	105		70 - 130		07/03/13 16:17	2
Dibromofluoromethane	95		70 - 130		07/03/13 16:17	2

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100B

Lab Sample ID: 680-91684-35

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	620		50	10	ug/L			07/03/13 16:38	2
Benzene	3.3		2.0	0.50	ug/L			07/03/13 16:38	2
Bromodichloromethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
Bromoform	2.0	U	2.0	1.0	ug/L			07/03/13 16:38	2
Bromomethane	10	U	10	4.0	ug/L			07/03/13 16:38	2
2-Butanone	20	U	20	2.0	ug/L			07/03/13 16:38	2
Carbon disulfide	4.0	U	4.0	1.2	ug/L			07/03/13 16:38	2
Carbon tetrachloride	2.0	U	2.0	1.0	ug/L			07/03/13 16:38	2
Chlorobenzene	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
Chloroethane	10	U	10	4.0	ug/L			07/03/13 16:38	2
Chloroform	2.0	U	2.0	0.28	ug/L			07/03/13 16:38	2
Chloromethane	2.0	U	2.0	0.66	ug/L			07/03/13 16:38	2
Cyclohexane	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
Dibromochloromethane	2.0	U	2.0	0.20	ug/L			07/03/13 16:38	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.88	ug/L			07/03/13 16:38	2
1,2-Dibromoethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
1,2-Dichlorobenzene	2.0	U	2.0	0.42	ug/L			07/03/13 16:38	2
1,3-Dichlorobenzene	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
1,4-Dichlorobenzene	2.0	U	2.0	0.56	ug/L			07/03/13 16:38	2
Dichlorodifluoromethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
1,1-Dichloroethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
1,2-Dichloroethane	2.0	U	2.0	0.20	ug/L			07/03/13 16:38	2
1,1-Dichloroethene	2.0	U	2.0	0.22	ug/L			07/03/13 16:38	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.30	ug/L			07/03/13 16:38	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.40	ug/L			07/03/13 16:38	2
1,2-Dichloropropane	2.0	U	2.0	0.26	ug/L			07/03/13 16:38	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.22	ug/L			07/03/13 16:38	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.42	ug/L			07/03/13 16:38	2
Ethylbenzene	2.3		2.0	0.22	ug/L			07/03/13 16:38	2
2-Hexanone	20	U	20	2.0	ug/L			07/03/13 16:38	2
Isopropylbenzene	220		2.0	0.20	ug/L			07/03/13 16:38	2
Methyl acetate	5.9		2.0	0.38	ug/L			07/03/13 16:38	2
Methylcyclohexane	2.0	U	2.0	0.20	ug/L			07/03/13 16:38	2
Methylene Chloride	10	U	10	2.0	ug/L			07/03/13 16:38	2
4-Methyl-2-pentanone	20	U	20	2.0	ug/L			07/03/13 16:38	2
Methyl tert-butyl ether	20	U	20	0.40	ug/L			07/03/13 16:38	2
Styrene	2.0	U	2.0	0.22	ug/L			07/03/13 16:38	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.36	ug/L			07/03/13 16:38	2
Tetrachloroethene	0.65	J	2.0	0.30	ug/L			07/03/13 16:38	2
Toluene	9.4		2.0	0.66	ug/L			07/03/13 16:38	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
1,1,1-Trichloroethane	2.0	U	2.0	1.0	ug/L			07/03/13 16:38	2
1,1,2-Trichloroethane	2.0	U	2.0	0.26	ug/L			07/03/13 16:38	2
Trichloroethene	0.69	J	2.0	0.26	ug/L			07/03/13 16:38	2
Trichlorofluoromethane	2.0	U	2.0	0.50	ug/L			07/03/13 16:38	2
1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	U	2.0	1.0	ug/L			07/03/13 16:38	2
Vinyl chloride	2.0	U	2.0	0.36	ug/L			07/03/13 16:38	2
Xylenes, Total	0.79	J	4.0	0.40	ug/L			07/03/13 16:38	2
1,2,4-Trimethylbenzene	2.0	U	2.0	0.66	ug/L			07/03/13 16:38	2

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100B

Lab Sample ID: 680-91684-35

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	2.0	U	2.0	0.66	ug/L			07/03/13 16:38	2
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>2.0</i>	<i>U</i>	<i>ug/L</i>		<i>0.00</i>	<i>98-83-9</i>		<i>07/03/13 16:38</i>	<i>2</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>102</i>		<i>70 - 130</i>					<i>07/03/13 16:38</i>	<i>2</i>
<i>Toluene-d8 (Surr)</i>	<i>106</i>		<i>70 - 130</i>					<i>07/03/13 16:38</i>	<i>2</i>
<i>Dibromofluoromethane</i>	<i>93</i>		<i>70 - 130</i>					<i>07/03/13 16:38</i>	<i>2</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: EB-1

Lab Sample ID: 680-91684-36

Date Collected: 06/24/13 09:55

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	190		25	5.0	ug/L			07/02/13 14:50	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 14:50	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 14:50	1
2-Butanone	1.2	J	10	1.0	ug/L			07/02/13 14:50	1
Carbon disulfide	0.63	J	2.0	0.60	ug/L			07/02/13 14:50	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 14:50	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 14:50	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 14:50	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 14:50	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 14:50	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 14:50	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 14:50	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 14:50	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 14:50	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 14:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 14:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 14:50	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 14:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 14:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 14:50	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 14:50	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 14:50	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 14:50	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 14:50	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 14:50	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 14:50	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 14:50	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 14:50	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 14:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 14:50	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 14:50	1
Toluene	2.5		1.0	0.33	ug/L			07/02/13 14:50	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 14:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 14:50	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 14:50	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 14:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 14:50	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 14:50	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 14:50	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 14:50	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: EB-1

Lab Sample ID: 680-91684-36

Date Collected: 06/24/13 09:55

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 14:50	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 14:50</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>100</i>		<i>70 - 130</i>					<i>07/02/13 14:50</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 14:50</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>107</i>		<i>70 - 130</i>					<i>07/02/13 14:50</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: Trip Blank Lot # 052713)

Lab Sample ID: 680-91684-37

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	5.0	ug/L			07/02/13 15:49	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 15:49	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 15:49	1
2-Butanone	10	U	10	1.0	ug/L			07/02/13 15:49	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 15:49	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 15:49	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 15:49	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 15:49	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 15:49	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 15:49	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 15:49	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 15:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 15:49	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 15:49	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 15:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 15:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 15:49	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 15:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 15:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 15:49	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 15:49	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 15:49	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 15:49	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 15:49	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 15:49	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 15:49	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 15:49	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 15:49	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 15:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 15:49	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 15:49	1
Toluene	1.0	U	1.0	0.33	ug/L			07/02/13 15:49	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 15:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 15:49	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 15:49	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 15:49	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 15:49	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 15:49	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 15:49	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: Trip Blank Lot # 052713)

Lab Sample ID: 680-91684-37

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 15:49	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 15:49</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>100</i>		<i>70 - 130</i>					<i>07/02/13 15:49</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 15:49</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 15:49</i>	<i>1</i>

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: RB-1

Lab Sample ID: 680-91684-38

Date Collected: 06/24/13 12:15

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	5.0	ug/L			07/02/13 15:19	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 15:19	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 15:19	1
2-Butanone	10	U	10	1.0	ug/L			07/02/13 15:19	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 15:19	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 15:19	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 15:19	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 15:19	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 15:19	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 15:19	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 15:19	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 15:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 15:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 15:19	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 15:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 15:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 15:19	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 15:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 15:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 15:19	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 15:19	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 15:19	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 15:19	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 15:19	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 15:19	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 15:19	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 15:19	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 15:19	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 15:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 15:19	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 15:19	1
Toluene	1.0	U	1.0	0.33	ug/L			07/02/13 15:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 15:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 15:19	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 15:19	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 15:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 15:19	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 15:19	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 15:19	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 15:19	1

TestAmerica Savannah

Client Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: RB-1

Lab Sample ID: 680-91684-38

Date Collected: 06/24/13 12:15

Matrix: Water

Date Received: 06/25/13 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 15:19	1
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	<i>1.0</i>	<i>U</i>	<i>ug/L</i>			<i>98-83-9</i>		<i>07/02/13 15:19</i>	<i>1</i>
<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	<i>101</i>		<i>70 - 130</i>					<i>07/02/13 15:19</i>	<i>1</i>
<i>Toluene-d8 (Surr)</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 15:19</i>	<i>1</i>
<i>Dibromofluoromethane</i>	<i>105</i>		<i>70 - 130</i>					<i>07/02/13 15:19</i>	<i>1</i>

Surrogate Summary

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (70-130)	TOL (70-130)	DBFM (70-130)
680-91684-22	PP-6A	101	105	105
680-91684-23	PP-6B	100	106	105
680-91684-24	PP-5A	102	104	105
680-91684-25	PP-5B	104	105	105
680-91684-26	PP-4A	104	105	105
680-91684-27	PP-4B	98	105	95
680-91684-28	PP-3A	101	104	105
680-91684-29	PP-3B	105	106	105
680-91684-30	PP-2A	104	105	106
680-91684-31	PP-2B	99	106	97
680-91684-32	PP-1A	94	104	100
680-91684-33	PP-1B	98	107	98
680-91684-34	PP-100A	99	106	96
680-91684-34 - DL	PP-100A	100	105	95
680-91684-35	PP-100B	102	106	93
680-91684-36	EB-1	100	105	107
680-91684-37	Trip Blank Lot # 052713)	100	105	105
680-91684-38	RB-1	101	105	105
LCS 680-282848/4	Lab Control Sample	110	103	105
LCS 680-282933/4	Lab Control Sample	95	102	103
LCS 680-283201/8	Lab Control Sample	99	101	95
LCSD 680-282848/5	Lab Control Sample Dup	110	103	102
LCSD 680-282933/5	Lab Control Sample Dup	97	103	103
LCSD 680-283201/9	Lab Control Sample Dup	96	103	95
MB 680-282848/8	Method Blank	105	105	108
MB 680-282933/7	Method Blank	96	105	102
MB 680-283201/11	Method Blank	98	104	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

TOL = Toluene-d8 (Surr)

DBFM = Dibromofluoromethane

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: MB 680-282848/8

Matrix: Water

Analysis Batch: 282848

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	5.0	ug/L			07/02/13 12:22	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 12:22	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 12:22	1
2-Butanone	10	U	10	1.0	ug/L			07/02/13 12:22	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 12:22	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 12:22	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 12:22	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 12:22	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 12:22	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 12:22	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 12:22	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 12:22	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 12:22	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 12:22	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 12:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 12:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 12:22	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 12:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 12:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 12:22	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 12:22	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 12:22	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 12:22	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 12:22	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 12:22	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 12:22	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 12:22	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 12:22	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 12:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 12:22	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 12:22	1
Toluene	1.0	U	1.0	0.33	ug/L			07/02/13 12:22	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 12:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 12:22	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 12:22	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 12:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 12:22	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 12:22	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 12:22	1

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: MB 680-282848/8

Matrix: Water

Analysis Batch: 282848

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 12:22	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 12:22	1
Tentatively Identified Compound	Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
a-Methylstyrene TIC	1.0	U	ug/L			98-83-9		07/02/13 12:22	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		70 - 130					07/02/13 12:22	1
Toluene-d8 (Surr)	105		70 - 130					07/02/13 12:22	1
Dibromofluoromethane	108		70 - 130					07/02/13 12:22	1

Lab Sample ID: LCS 680-282848/4

Matrix: Water

Analysis Batch: 282848

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	83.5		ug/L		84	39 - 162
Benzene	50.0	48.8		ug/L		98	74 - 123
Bromodichloromethane	50.0	43.4		ug/L		87	72 - 129
Bromoform	50.0	53.9		ug/L		108	60 - 134
Bromomethane	50.0	51.9		ug/L		104	10 - 171
2-Butanone	100	90.5		ug/L		91	55 - 142
Carbon disulfide	50.0	44.9		ug/L		90	63 - 142
Carbon tetrachloride	50.0	50.2		ug/L		100	70 - 131
Chlorobenzene	50.0	51.9		ug/L		104	79 - 120
Chloroethane	50.0	39.4		ug/L		79	47 - 148
Chloroform	50.0	52.1		ug/L		104	76 - 128
Chloromethane	50.0	40.9		ug/L		82	47 - 151
Cyclohexane	50.0	45.1		ug/L		90	68 - 137
Dibromochloromethane	50.0	52.6		ug/L		105	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	52.0		ug/L		104	57 - 126
1,2-Dibromoethane	50.0	50.4		ug/L		101	75 - 127
1,2-Dichlorobenzene	50.0	54.1		ug/L		108	77 - 124
1,3-Dichlorobenzene	50.0	54.6		ug/L		109	79 - 123
1,4-Dichlorobenzene	50.0	55.0		ug/L		110	76 - 124
Dichlorodifluoromethane	50.0	42.6		ug/L		85	41 - 165
1,1-Dichloroethane	50.0	44.1		ug/L		88	69 - 132
1,2-Dichloroethane	50.0	45.1		ug/L		90	75 - 120
1,1-Dichloroethene	50.0	47.8		ug/L		96	73 - 134
cis-1,2-Dichloroethene	50.0	52.8		ug/L		106	78 - 127
trans-1,2-Dichloroethene	50.0	53.7		ug/L		107	78 - 130
1,2-Dichloropropane	50.0	50.1		ug/L		100	71 - 126
cis-1,3-Dichloropropene	50.0	51.2		ug/L		102	73 - 128
trans-1,3-Dichloropropene	50.0	51.4		ug/L		103	72 - 127
Ethylbenzene	50.0	48.8		ug/L		98	78 - 125
2-Hexanone	100	102		ug/L		102	52 - 149
Isopropylbenzene	50.0	46.9		ug/L		94	72 - 129

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: LCS 680-282848/4

Matrix: Water

Analysis Batch: 282848

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl acetate	50.0	40.2		ug/L		80	26 - 182
Methylcyclohexane	50.0	46.8		ug/L		94	72 - 133
Methylene Chloride	50.0	49.7		ug/L		99	79 - 124
4-Methyl-2-pentanone	100	96.9		ug/L		97	51 - 143
Methyl tert-butyl ether	100	103		ug/L		103	76 - 126
Styrene	50.0	49.7		ug/L		99	75 - 129
1,1,2,2-Tetrachloroethane	50.0	49.2		ug/L		98	71 - 127
Tetrachloroethene	50.0	43.9		ug/L		88	77 - 128
Toluene	50.0	52.6		ug/L		105	77 - 125
1,2,4-Trichlorobenzene	50.0	45.2		ug/L		90	67 - 134
1,1,1-Trichloroethane	50.0	40.1		ug/L		80	76 - 126
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	69 - 127
Trichloroethene	50.0	49.9		ug/L		100	80 - 120
Trichlorofluoromethane	50.0	42.5		ug/L		85	66 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	45.8		ug/L		92	72 - 139
Vinyl chloride	50.0	44.3		ug/L		89	58 - 141
Xylenes, Total	150	149		ug/L		99	80 - 124
1,2,4-Trimethylbenzene	50.0	50.4		ug/L		101	72 - 129
1,3,5-Trimethylbenzene	50.0	50.5		ug/L		101	72 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	110		70 - 130
Toluene-d8 (Surr)	103		70 - 130
Dibromofluoromethane	105		70 - 130

Lab Sample ID: LCSD 680-282848/5

Matrix: Water

Analysis Batch: 282848

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	85.1		ug/L		85	39 - 162	2	50
Benzene	50.0	48.7		ug/L		97	74 - 123	0	30
Bromodichloromethane	50.0	43.4		ug/L		87	72 - 129	0	30
Bromoform	50.0	54.1		ug/L		108	60 - 134	0	30
Bromomethane	50.0	40.0		ug/L		80	10 - 171	26	50
2-Butanone	100	92.3		ug/L		92	55 - 142	2	30
Carbon disulfide	50.0	41.4		ug/L		83	63 - 142	8	30
Carbon tetrachloride	50.0	47.9		ug/L		96	70 - 131	5	30
Chlorobenzene	50.0	52.4		ug/L		105	79 - 120	1	30
Chloroethane	50.0	37.1		ug/L		74	47 - 148	6	40
Chloroform	50.0	50.1		ug/L		100	76 - 128	4	30
Chloromethane	50.0	38.2		ug/L		76	47 - 151	7	30
Cyclohexane	50.0	43.3		ug/L		87	68 - 137	4	30
Dibromochloromethane	50.0	53.8		ug/L		108	63 - 134	2	50
1,2-Dibromo-3-Chloropropane	50.0	53.7		ug/L		107	57 - 126	3	50
1,2-Dibromoethane	50.0	52.5		ug/L		105	75 - 127	4	30
1,2-Dichlorobenzene	50.0	55.2		ug/L		110	77 - 124	2	30

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: LCSD 680-282848/5

Matrix: Water

Analysis Batch: 282848

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	50.0	54.8		ug/L		110	79 - 123	0	30
1,4-Dichlorobenzene	50.0	55.6		ug/L		111	76 - 124	1	30
Dichlorodifluoromethane	50.0	41.4		ug/L		83	41 - 165	3	50
1,1-Dichloroethane	50.0	42.0		ug/L		84	69 - 132	5	30
1,2-Dichloroethane	50.0	47.5		ug/L		95	75 - 120	5	30
1,1-Dichloroethene	50.0	44.2		ug/L		88	73 - 134	8	30
cis-1,2-Dichloroethene	50.0	50.4		ug/L		101	78 - 127	5	30
trans-1,2-Dichloroethene	50.0	50.5		ug/L		101	78 - 130	6	30
1,2-Dichloropropane	50.0	50.2		ug/L		100	71 - 126	0	30
cis-1,3-Dichloropropene	50.0	52.5		ug/L		105	73 - 128	3	30
trans-1,3-Dichloropropene	50.0	52.9		ug/L		106	72 - 127	3	50
Ethylbenzene	50.0	47.6		ug/L		95	78 - 125	3	30
2-Hexanone	100	108		ug/L		108	52 - 149	6	30
Isopropylbenzene	50.0	45.6		ug/L		91	72 - 129	3	30
Methyl acetate	50.0	41.3		ug/L		83	26 - 182	3	30
Methylcyclohexane	50.0	44.4		ug/L		89	72 - 133	5	30
Methylene Chloride	50.0	48.5		ug/L		97	79 - 124	3	30
4-Methyl-2-pentanone	100	104		ug/L		104	51 - 143	7	30
Methyl tert-butyl ether	100	104		ug/L		104	76 - 126	1	30
Styrene	50.0	49.8		ug/L		100	75 - 129	0	30
1,1,2,2-Tetrachloroethane	50.0	51.0		ug/L		102	71 - 127	4	30
Tetrachloroethene	50.0	42.1		ug/L		84	77 - 128	4	30
Toluene	50.0	52.4		ug/L		105	77 - 125	0	30
1,2,4-Trichlorobenzene	50.0	45.9		ug/L		92	67 - 134	2	30
1,1,1-Trichloroethane	50.0	39.1		ug/L		78	76 - 126	3	30
1,1,2-Trichloroethane	50.0	51.4		ug/L		103	69 - 127	4	30
Trichloroethene	50.0	49.7		ug/L		99	80 - 120	0	30
Trichlorofluoromethane	50.0	38.6		ug/L		77	66 - 144	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	42.0		ug/L		84	72 - 139	9	30
Vinyl chloride	50.0	40.6		ug/L		81	58 - 141	9	30
Xylenes, Total	150	147		ug/L		98	80 - 124	1	30
1,2,4-Trimethylbenzene	50.0	50.8		ug/L		102	72 - 129	1	50
1,3,5-Trimethylbenzene	50.0	49.6		ug/L		99	72 - 130	2	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	110		70 - 130
Toluene-d8 (Surr)	103		70 - 130
Dibromofluoromethane	102		70 - 130

Lab Sample ID: MB 680-282933/7

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	5.0	ug/L			07/02/13 10:53	1
Benzene	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: MB 680-282933/7

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	1.0	U	1.0	0.50	ug/L			07/02/13 10:53	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/02/13 10:53	1
2-Butanone	10	U	10	1.0	ug/L			07/02/13 10:53	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/02/13 10:53	1
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/02/13 10:53	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/02/13 10:53	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/02/13 10:53	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/02/13 10:53	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/02/13 10:53	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/02/13 10:53	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/02/13 10:53	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/02/13 10:53	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/02/13 10:53	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/02/13 10:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 10:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/02/13 10:53	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/02/13 10:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/02/13 10:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/02/13 10:53	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/02/13 10:53	1
2-Hexanone	10	U	10	1.0	ug/L			07/02/13 10:53	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/02/13 10:53	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/02/13 10:53	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/02/13 10:53	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/02/13 10:53	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/02/13 10:53	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/02/13 10:53	1
Styrene	1.0	U	1.0	0.11	ug/L			07/02/13 10:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/02/13 10:53	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/02/13 10:53	1
Toluene	1.0	U	1.0	0.33	ug/L			07/02/13 10:53	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/02/13 10:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/02/13 10:53	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/02/13 10:53	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/02/13 10:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/02/13 10:53	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/02/13 10:53	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/02/13 10:53	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 10:53	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/02/13 10:53	1

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: MB 680-282933/7

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Tentatively Identified Compound</i>	<i>MB</i> <i>Est. Result</i>	<i>MB</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>a-Methylstyrene TIC</i>	1.0	U	ug/L		0.00	98-83-9		07/02/13 10:53	1

<i>Surrogate</i>	<i>MB</i> <i>%Recovery</i>	<i>MB</i> <i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>4-Bromofluorobenzene</i>	96		70 - 130		07/02/13 10:53	1
<i>Toluene-d8 (Surr)</i>	105		70 - 130		07/02/13 10:53	1
<i>Dibromofluoromethane</i>	102		70 - 130		07/02/13 10:53	1

Lab Sample ID: LCS 680-282933/4

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike</i> <i>Added</i>	<i>LCS</i> <i>Result</i>	<i>LCS</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>
Acetone	100	101		ug/L		101	39 - 162
Benzene	50.0	49.7		ug/L		99	74 - 123
Bromodichloromethane	50.0	49.2		ug/L		98	72 - 129
Bromoform	50.0	41.6		ug/L		83	60 - 134
Bromomethane	50.0	25.9		ug/L		52	10 - 171
2-Butanone	100	105		ug/L		105	55 - 142
Carbon disulfide	50.0	46.5		ug/L		93	63 - 142
Carbon tetrachloride	50.0	51.0		ug/L		102	70 - 131
Chlorobenzene	50.0	51.4		ug/L		103	79 - 120
Chloroethane	50.0	47.2		ug/L		94	47 - 148
Chloroform	50.0	49.7		ug/L		99	76 - 128
Chloromethane	50.0	48.0		ug/L		96	47 - 151
Cyclohexane	50.0	53.6		ug/L		107	68 - 137
Dibromochloromethane	50.0	37.4		ug/L		75	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	35.6		ug/L		71	57 - 126
1,2-Dibromoethane	50.0	49.8		ug/L		100	75 - 127
1,2-Dichlorobenzene	50.0	47.0		ug/L		94	77 - 124
1,3-Dichlorobenzene	50.0	47.7		ug/L		95	79 - 123
1,4-Dichlorobenzene	50.0	47.4		ug/L		95	76 - 124
Dichlorodifluoromethane	50.0	44.4		ug/L		89	41 - 165
1,1-Dichloroethane	50.0	46.8		ug/L		94	69 - 132
1,2-Dichloroethane	50.0	48.5		ug/L		97	75 - 120
1,1-Dichloroethene	50.0	48.9		ug/L		98	73 - 134
cis-1,2-Dichloroethene	50.0	48.7		ug/L		97	78 - 127
trans-1,2-Dichloroethene	50.0	48.5		ug/L		97	78 - 130
1,2-Dichloropropane	50.0	44.0		ug/L		88	71 - 126
cis-1,3-Dichloropropene	50.0	43.3		ug/L		87	73 - 128
trans-1,3-Dichloropropene	50.0	42.8		ug/L		86	72 - 127
Ethylbenzene	50.0	50.0		ug/L		100	78 - 125
2-Hexanone	100	89.9		ug/L		90	52 - 149
Isopropylbenzene	50.0	53.2		ug/L		106	72 - 129
Methyl acetate	50.0	48.1		ug/L		96	26 - 182
Methylcyclohexane	50.0	48.4		ug/L		97	72 - 133
Methylene Chloride	50.0	51.1		ug/L		102	79 - 124
4-Methyl-2-pentanone	100	98.2		ug/L		98	51 - 143

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: LCS 680-282933/4

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	100	91.1		ug/L		91	76 - 126
Styrene	50.0	49.0		ug/L		98	75 - 129
1,1,2,2-Tetrachloroethane	50.0	47.2		ug/L		94	71 - 127
Tetrachloroethene	50.0	48.3		ug/L		97	77 - 128
Toluene	50.0	51.3		ug/L		103	77 - 125
1,2,4-Trichlorobenzene	50.0	38.2		ug/L		76	67 - 134
1,1,1-Trichloroethane	50.0	46.4		ug/L		93	76 - 126
1,1,2-Trichloroethane	50.0	53.1		ug/L		106	69 - 127
Trichloroethene	50.0	47.2		ug/L		94	80 - 120
Trichlorofluoromethane	50.0	47.8		ug/L		96	66 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.9		ug/L		98	72 - 139
Vinyl chloride	50.0	47.8		ug/L		96	58 - 141
Xylenes, Total	150	148		ug/L		99	80 - 124
1,2,4-Trimethylbenzene	50.0	47.0		ug/L		94	72 - 129
1,3,5-Trimethylbenzene	50.0	46.1		ug/L		92	72 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	95		70 - 130
Toluene-d8 (Surr)	102		70 - 130
Dibromofluoromethane	103		70 - 130

Lab Sample ID: LCSD 680-282933/5

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	107		ug/L		107	39 - 162	6	50
Benzene	50.0	49.0		ug/L		98	74 - 123	1	30
Bromodichloromethane	50.0	48.6		ug/L		97	72 - 129	1	30
Bromoform	50.0	41.8		ug/L		84	60 - 134	0	30
Bromomethane	50.0	36.0		ug/L		72	10 - 171	32	50
2-Butanone	100	106		ug/L		106	55 - 142	2	30
Carbon disulfide	50.0	47.1		ug/L		94	63 - 142	1	30
Carbon tetrachloride	50.0	51.6		ug/L		103	70 - 131	1	30
Chlorobenzene	50.0	51.2		ug/L		102	79 - 120	0	30
Chloroethane	50.0	45.7		ug/L		91	47 - 148	3	40
Chloroform	50.0	49.6		ug/L		99	76 - 128	0	30
Chloromethane	50.0	50.2		ug/L		100	47 - 151	4	30
Cyclohexane	50.0	53.7		ug/L		107	68 - 137	0	30
Dibromochloromethane	50.0	37.1		ug/L		74	63 - 134	1	50
1,2-Dibromo-3-Chloropropane	50.0	36.2		ug/L		72	57 - 126	2	50
1,2-Dibromoethane	50.0	49.6		ug/L		99	75 - 127	0	30
1,2-Dichlorobenzene	50.0	47.0		ug/L		94	77 - 124	0	30
1,3-Dichlorobenzene	50.0	47.7		ug/L		95	79 - 123	0	30
1,4-Dichlorobenzene	50.0	47.5		ug/L		95	76 - 124	0	30
Dichlorodifluoromethane	50.0	44.9		ug/L		90	41 - 165	1	50
1,1-Dichloroethane	50.0	46.9		ug/L		94	69 - 132	0	30

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: LCSD 680-282933/5

Matrix: Water

Analysis Batch: 282933

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	50.0	47.9		ug/L		96	75 - 120	1	30
1,1-Dichloroethene	50.0	49.1		ug/L		98	73 - 134	0	30
cis-1,2-Dichloroethene	50.0	48.5		ug/L		97	78 - 127	0	30
trans-1,2-Dichloroethene	50.0	47.3		ug/L		95	78 - 130	3	30
1,2-Dichloropropane	50.0	43.3		ug/L		87	71 - 126	1	30
cis-1,3-Dichloropropene	50.0	43.4		ug/L		87	73 - 128	0	30
trans-1,3-Dichloropropene	50.0	42.6		ug/L		85	72 - 127	0	50
Ethylbenzene	50.0	50.6		ug/L		101	78 - 125	1	30
2-Hexanone	100	90.8		ug/L		91	52 - 149	1	30
Isopropylbenzene	50.0	54.1		ug/L		108	72 - 129	2	30
Methyl acetate	50.0	49.4		ug/L		99	26 - 182	3	30
Methylcyclohexane	50.0	48.5		ug/L		97	72 - 133	0	30
Methylene Chloride	50.0	51.2		ug/L		102	79 - 124	0	30
4-Methyl-2-pentanone	100	97.0		ug/L		97	51 - 143	1	30
Methyl tert-butyl ether	100	89.9		ug/L		90	76 - 126	1	30
Styrene	50.0	49.5		ug/L		99	75 - 129	1	30
1,1,2,2-Tetrachloroethane	50.0	47.5		ug/L		95	71 - 127	1	30
Tetrachloroethene	50.0	49.5		ug/L		99	77 - 128	2	30
Toluene	50.0	51.1		ug/L		102	77 - 125	0	30
1,2,4-Trichlorobenzene	50.0	38.9		ug/L		78	67 - 134	2	30
1,1,1-Trichloroethane	50.0	46.5		ug/L		93	76 - 126	0	30
1,1,2-Trichloroethane	50.0	52.8		ug/L		106	69 - 127	1	30
Trichloroethene	50.0	46.6		ug/L		93	80 - 120	1	30
Trichlorofluoromethane	50.0	48.2		ug/L		96	66 - 144	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.9		ug/L		100	72 - 139	2	30
Vinyl chloride	50.0	48.9		ug/L		98	58 - 141	2	30
Xylenes, Total	150	150		ug/L		100	80 - 124	1	30
1,2,4-Trimethylbenzene	50.0	47.4		ug/L		95	72 - 129	1	50
1,3,5-Trimethylbenzene	50.0	46.1		ug/L		92	72 - 130	0	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	97		70 - 130
Toluene-d8 (Surr)	103		70 - 130
Dibromofluoromethane	103		70 - 130

Lab Sample ID: MB 680-283201/11

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	25	U	25	5.0	ug/L			07/03/13 14:49	1
Benzene	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
Bromodichloromethane	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
Bromoform	1.0	U	1.0	0.50	ug/L			07/03/13 14:49	1
Bromomethane	5.0	U	5.0	2.0	ug/L			07/03/13 14:49	1
2-Butanone	10	U	10	1.0	ug/L			07/03/13 14:49	1
Carbon disulfide	2.0	U	2.0	0.60	ug/L			07/03/13 14:49	1

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: MB 680-283201/11

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	1.0	0.50	ug/L			07/03/13 14:49	1
Chlorobenzene	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
Chloroethane	5.0	U	5.0	2.0	ug/L			07/03/13 14:49	1
Chloroform	1.0	U	1.0	0.14	ug/L			07/03/13 14:49	1
Chloromethane	1.0	U	1.0	0.33	ug/L			07/03/13 14:49	1
Cyclohexane	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
Dibromochloromethane	1.0	U	1.0	0.10	ug/L			07/03/13 14:49	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.44	ug/L			07/03/13 14:49	1
1,2-Dibromoethane	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
1,2-Dichlorobenzene	1.0	U	1.0	0.21	ug/L			07/03/13 14:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.28	ug/L			07/03/13 14:49	1
Dichlorodifluoromethane	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
1,1-Dichloroethane	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
1,2-Dichloroethane	1.0	U	1.0	0.10	ug/L			07/03/13 14:49	1
1,1-Dichloroethene	1.0	U	1.0	0.11	ug/L			07/03/13 14:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.15	ug/L			07/03/13 14:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			07/03/13 14:49	1
1,2-Dichloropropane	1.0	U	1.0	0.13	ug/L			07/03/13 14:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.11	ug/L			07/03/13 14:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.21	ug/L			07/03/13 14:49	1
Ethylbenzene	1.0	U	1.0	0.11	ug/L			07/03/13 14:49	1
2-Hexanone	10	U	10	1.0	ug/L			07/03/13 14:49	1
Isopropylbenzene	1.0	U	1.0	0.10	ug/L			07/03/13 14:49	1
Methyl acetate	1.0	U	1.0	0.19	ug/L			07/03/13 14:49	1
Methylcyclohexane	1.0	U	1.0	0.10	ug/L			07/03/13 14:49	1
Methylene Chloride	5.0	U	5.0	1.0	ug/L			07/03/13 14:49	1
4-Methyl-2-pentanone	10	U	10	1.0	ug/L			07/03/13 14:49	1
Methyl tert-butyl ether	10	U	10	0.20	ug/L			07/03/13 14:49	1
Styrene	1.0	U	1.0	0.11	ug/L			07/03/13 14:49	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.18	ug/L			07/03/13 14:49	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			07/03/13 14:49	1
Toluene	1.0	U	1.0	0.33	ug/L			07/03/13 14:49	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.50	ug/L			07/03/13 14:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.13	ug/L			07/03/13 14:49	1
Trichloroethene	1.0	U	1.0	0.13	ug/L			07/03/13 14:49	1
Trichlorofluoromethane	1.0	U	1.0	0.25	ug/L			07/03/13 14:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.50	ug/L			07/03/13 14:49	1
Vinyl chloride	1.0	U	1.0	0.18	ug/L			07/03/13 14:49	1
Xylenes, Total	2.0	U	2.0	0.20	ug/L			07/03/13 14:49	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/03/13 14:49	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.33	ug/L			07/03/13 14:49	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
a-Methylstyrene TIC	1.0	U	ug/L		0.00	98-83-9		07/03/13 14:49	1

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: MB 680-283201/11

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		70 - 130		07/03/13 14:49	1
Toluene-d8 (Surr)	104		70 - 130		07/03/13 14:49	1
Dibromofluoromethane	105		70 - 130		07/03/13 14:49	1

Lab Sample ID: LCS 680-283201/8

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	100	105		ug/L		105	39 - 162
Benzene	50.0	48.8		ug/L		98	74 - 123
Bromodichloromethane	50.0	51.0		ug/L		102	72 - 129
Bromoform	50.0	49.2		ug/L		98	60 - 134
Bromomethane	50.0	15.2		ug/L		30	10 - 171
2-Butanone	100	132		ug/L		132	55 - 142
Carbon disulfide	50.0	37.7		ug/L		75	63 - 142
Carbon tetrachloride	50.0	49.8		ug/L		100	70 - 131
Chlorobenzene	50.0	51.9		ug/L		104	79 - 120
Chloroethane	50.0	32.4		ug/L		65	47 - 148
Chloroform	50.0	45.8		ug/L		92	76 - 128
Chloromethane	50.0	35.3		ug/L		71	47 - 151
Cyclohexane	50.0	49.5		ug/L		99	68 - 137
Dibromochloromethane	50.0	40.3		ug/L		81	63 - 134
1,2-Dibromo-3-Chloropropane	50.0	47.6		ug/L		95	57 - 126
1,2-Dibromoethane	50.0	55.2		ug/L		110	75 - 127
1,2-Dichlorobenzene	50.0	55.0		ug/L		110	77 - 124
1,3-Dichlorobenzene	50.0	53.5		ug/L		107	79 - 123
1,4-Dichlorobenzene	50.0	53.2		ug/L		106	76 - 124
Dichlorodifluoromethane	50.0	32.4		ug/L		65	41 - 165
1,1-Dichloroethane	50.0	42.1		ug/L		84	69 - 132
1,2-Dichloroethane	50.0	50.8		ug/L		102	75 - 120
1,1-Dichloroethene	50.0	38.2		ug/L		76	73 - 134
cis-1,2-Dichloroethene	50.0	43.2		ug/L		86	78 - 127
trans-1,2-Dichloroethene	50.0	44.1		ug/L		88	78 - 130
1,2-Dichloropropane	50.0	44.6		ug/L		89	71 - 126
cis-1,3-Dichloropropene	50.0	44.5		ug/L		89	73 - 128
trans-1,3-Dichloropropene	50.0	44.7		ug/L		89	72 - 127
Ethylbenzene	50.0	50.7		ug/L		101	78 - 125
2-Hexanone	100	117		ug/L		117	52 - 149
Isopropylbenzene	50.0	55.8		ug/L		112	72 - 129
Methyl acetate	50.0	55.4		ug/L		111	26 - 182
Methylcyclohexane	50.0	51.2		ug/L		102	72 - 133
Methylene Chloride	50.0	41.4		ug/L		83	79 - 124
4-Methyl-2-pentanone	100	126		ug/L		126	51 - 143
Methyl tert-butyl ether	100	89.6		ug/L		90	76 - 126
Styrene	50.0	50.5		ug/L		101	75 - 129
1,1,2,2-Tetrachloroethane	50.0	59.4		ug/L		119	71 - 127
Tetrachloroethene	50.0	48.5		ug/L		97	77 - 128

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: LCS 680-283201/8

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	50.0	50.6		ug/L		101	77 - 125
1,2,4-Trichlorobenzene	50.0	66.0		ug/L		132	67 - 134
1,1,1-Trichloroethane	50.0	45.8		ug/L		92	76 - 126
1,1,2-Trichloroethane	50.0	56.3		ug/L		113	69 - 127
Trichloroethene	50.0	45.9		ug/L		92	80 - 120
Trichlorofluoromethane	50.0	36.6		ug/L		73	66 - 144
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	41.4		ug/L		83	72 - 139
Vinyl chloride	50.0	36.1		ug/L		72	58 - 141
Xylenes, Total	150	152		ug/L		101	80 - 124
1,2,4-Trimethylbenzene	50.0	52.9		ug/L		106	72 - 129
1,3,5-Trimethylbenzene	50.0	52.0		ug/L		104	72 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130
Dibromofluoromethane	95		70 - 130

Lab Sample ID: LCSD 680-283201/9

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	100	115		ug/L		115	39 - 162	8	50
Benzene	50.0	50.7		ug/L		101	74 - 123	4	30
Bromodichloromethane	50.0	51.1		ug/L		102	72 - 129	0	30
Bromoform	50.0	47.2		ug/L		94	60 - 134	4	30
Bromomethane	50.0	16.4		ug/L		33	10 - 171	7	50
2-Butanone	100	133		ug/L		133	55 - 142	1	30
Carbon disulfide	50.0	39.7		ug/L		79	63 - 142	5	30
Carbon tetrachloride	50.0	51.3		ug/L		103	70 - 131	3	30
Chlorobenzene	50.0	49.9		ug/L		100	79 - 120	4	30
Chloroethane	50.0	35.3		ug/L		71	47 - 148	9	40
Chloroform	50.0	45.8		ug/L		92	76 - 128	0	30
Chloromethane	50.0	38.8		ug/L		78	47 - 151	10	30
Cyclohexane	50.0	53.4		ug/L		107	68 - 137	8	30
Dibromochloromethane	50.0	38.2		ug/L		76	63 - 134	5	50
1,2-Dibromo-3-Chloropropane	50.0	44.0		ug/L		88	57 - 126	8	50
1,2-Dibromoethane	50.0	55.4		ug/L		111	75 - 127	0	30
1,2-Dichlorobenzene	50.0	52.3		ug/L		105	77 - 124	5	30
1,3-Dichlorobenzene	50.0	52.0		ug/L		104	79 - 123	3	30
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	76 - 124	5	30
Dichlorodifluoromethane	50.0	33.3		ug/L		67	41 - 165	3	50
1,1-Dichloroethane	50.0	48.6		ug/L		97	69 - 132	14	30
1,2-Dichloroethane	50.0	53.5		ug/L		107	75 - 120	5	30
1,1-Dichloroethene	50.0	38.3		ug/L		77	73 - 134	0	30
cis-1,2-Dichloroethene	50.0	44.2		ug/L		88	78 - 127	2	30
trans-1,2-Dichloroethene	50.0	43.3		ug/L		87	78 - 130	2	30

TestAmerica Savannah

QC Sample Results

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

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

Lab Sample ID: LCSD 680-283201/9

Matrix: Water

Analysis Batch: 283201

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	50.0	44.4		ug/L		89	71 - 126	0	30
cis-1,3-Dichloropropene	50.0	43.1		ug/L		86	73 - 128	3	30
trans-1,3-Dichloropropene	50.0	44.2		ug/L		88	72 - 127	1	50
Ethylbenzene	50.0	49.4		ug/L		99	78 - 125	3	30
2-Hexanone	100	116		ug/L		116	52 - 149	1	30
Isopropylbenzene	50.0	56.6		ug/L		113	72 - 129	1	30
Methyl acetate	50.0	68.6		ug/L		137	26 - 182	21	30
Methylcyclohexane	50.0	53.7		ug/L		107	72 - 133	5	30
Methylene Chloride	50.0	41.9		ug/L		84	79 - 124	1	30
4-Methyl-2-pentanone	100	126		ug/L		126	51 - 143	0	30
Methyl tert-butyl ether	100	93.0		ug/L		93	76 - 126	4	30
Styrene	50.0	47.9		ug/L		96	75 - 129	5	30
1,1,2,2-Tetrachloroethane	50.0	59.1		ug/L		118	71 - 127	1	30
Tetrachloroethene	50.0	52.2		ug/L		104	77 - 128	7	30
Toluene	50.0	50.8		ug/L		102	77 - 125	0	30
1,2,4-Trichlorobenzene	50.0	62.3		ug/L		125	67 - 134	6	30
1,1,1-Trichloroethane	50.0	52.1		ug/L		104	76 - 126	13	30
1,1,2-Trichloroethane	50.0	56.1		ug/L		112	69 - 127	0	30
Trichloroethene	50.0	48.2		ug/L		96	80 - 120	5	30
Trichlorofluoromethane	50.0	38.7		ug/L		77	66 - 144	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	44.5		ug/L		89	72 - 139	7	30
Vinyl chloride	50.0	38.9		ug/L		78	58 - 141	7	30
Xylenes, Total	150	148		ug/L		99	80 - 124	3	30
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	72 - 129	4	50
1,3,5-Trimethylbenzene	50.0	49.8		ug/L		100	72 - 130	4	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	96		70 - 130
Toluene-d8 (Surr)	103		70 - 130
Dibromofluoromethane	95		70 - 130

QC Association Summary

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

GC/MS VOA

Analysis Batch: 282848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91684-22	PP-6A	Total/NA	Water	8260B	
680-91684-23	PP-6B	Total/NA	Water	8260B	
680-91684-24	PP-5A	Total/NA	Water	8260B	
680-91684-25	PP-5B	Total/NA	Water	8260B	
680-91684-26	PP-4A	Total/NA	Water	8260B	
680-91684-28	PP-3A	Total/NA	Water	8260B	
680-91684-29	PP-3B	Total/NA	Water	8260B	
680-91684-30	PP-2A	Total/NA	Water	8260B	
680-91684-36	EB-1	Total/NA	Water	8260B	
680-91684-37	Trip Blank Lot # 052713)	Total/NA	Water	8260B	
680-91684-38	RB-1	Total/NA	Water	8260B	
LCS 680-282848/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-282848/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-282848/8	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 282933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91684-27	PP-4B	Total/NA	Water	8260B	
680-91684-31	PP-2B	Total/NA	Water	8260B	
680-91684-32	PP-1A	Total/NA	Water	8260B	
680-91684-33	PP-1B	Total/NA	Water	8260B	
680-91684-34	PP-100A	Total/NA	Water	8260B	
LCS 680-282933/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-282933/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-282933/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 283201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-91684-34 - DL	PP-100A	Total/NA	Water	8260B	
680-91684-35	PP-100B	Total/NA	Water	8260B	
LCS 680-283201/8	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-283201/9	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 680-283201/11	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-6A

Date Collected: 06/24/13 10:00

Date Received: 06/25/13 09:30

Lab Sample ID: 680-91684-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 16:18	JD1	TAL SAV

Client Sample ID: PP-6B

Date Collected: 06/24/13 10:05

Date Received: 06/25/13 09:30

Lab Sample ID: 680-91684-23

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 16:48	JD1	TAL SAV

Client Sample ID: PP-5A

Date Collected: 06/24/13 10:25

Date Received: 06/25/13 09:30

Lab Sample ID: 680-91684-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 17:17	JD1	TAL SAV

Client Sample ID: PP-5B

Date Collected: 06/24/13 10:30

Date Received: 06/25/13 09:30

Lab Sample ID: 680-91684-25

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 17:47	JD1	TAL SAV

Client Sample ID: PP-4A

Date Collected: 06/24/13 10:45

Date Received: 06/25/13 09:30

Lab Sample ID: 680-91684-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 18:17	JD1	TAL SAV

Client Sample ID: PP-4B

Date Collected: 06/24/13 10:50

Date Received: 06/25/13 09:30

Lab Sample ID: 680-91684-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	282933	07/02/13 15:31	JD1	TAL SAV

Lab Chronicle

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-3A

Lab Sample ID: 680-91684-28

Date Collected: 06/24/13 10:55

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 18:46	JD1	TAL SAV

Client Sample ID: PP-3B

Lab Sample ID: 680-91684-29

Date Collected: 06/24/13 11:00

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 19:16	JD1	TAL SAV

Client Sample ID: PP-2A

Lab Sample ID: 680-91684-30

Date Collected: 06/24/13 11:30

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 19:45	JD1	TAL SAV

Client Sample ID: PP-2B

Lab Sample ID: 680-91684-31

Date Collected: 06/24/13 11:35

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282933	07/02/13 18:16	JD1	TAL SAV

Client Sample ID: PP-1A

Lab Sample ID: 680-91684-32

Date Collected: 06/24/13 11:55

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282933	07/02/13 16:37	JD1	TAL SAV

Client Sample ID: PP-1B

Lab Sample ID: 680-91684-33

Date Collected: 06/24/13 12:00

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282933	07/02/13 16:59	JD1	TAL SAV

TestAmerica Savannah

Lab Chronicle

Client: Ashland Inc.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Client Sample ID: PP-100A

Lab Sample ID: 680-91684-34

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282933	07/02/13 17:20	JD1	TAL SAV
Total/NA	Analysis	8260B	DL	2	283201	07/03/13 16:17	JD1	TAL SAV

Client Sample ID: PP-100B

Lab Sample ID: 680-91684-35

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	283201	07/03/13 16:38	JD1	TAL SAV

Client Sample ID: EB-1

Lab Sample ID: 680-91684-36

Date Collected: 06/24/13 09:55

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 14:50	JD1	TAL SAV

Client Sample ID: Trip Blank Lot # 052713)

Lab Sample ID: 680-91684-37

Date Collected: 06/24/13 00:00

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 15:49	JD1	TAL SAV

Client Sample ID: RB-1

Lab Sample ID: 680-91684-38

Date Collected: 06/24/13 12:15

Matrix: Water

Date Received: 06/25/13 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	282848	07/02/13 15:19	JD1	TAL SAV

Laboratory References:

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

Serial Number 68868

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
Phone: (912) 354-7858
Fax: (912) 352-0165

☐ Alternate Laboratory Name/Location

Phone:
Fax:

PROJECT REFERENCE <i>Supermarket</i> <i>Donnell Creek Studios</i>	PROJECT NO. <i>68005897</i>	PROJECT LOCATION (STATE)	MATRIX TYPE	REQUIRED ANALYSIS										PAGE <i>1</i>	OF <i>2</i>	
TAL (LAB) PROJECT MANAGER <i>Lidia Galizia</i>	P.O. NUMBER	CONTRACT NO.	COMPOSITE (G) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT, ...) <i>VOCs +</i> <i>55713</i>	STANDARD REPORT DELIVERY ☒ DATE DUE _____ EXPEDITED REPORT DELIVERY (SURCHARGE) ☐ DATE DUE _____ NUMBER OF COOLERS SUBMITTED PER SHIPMENT:												
CLIENT (SITE) PM <i>J. Destin Forns</i>	CLIENT PHONE	CLIENT FAX														
CLIENT NAME <i>CSI Env. LLC</i>	CLIENT E-MAIL															
CLIENT ADDRESS <i>401 HQQTRS DR. Suite 203, Millersville, MD 21108</i>																
COMPANY CONTRACTING THIS WORK (if applicable)			PRESERVATIVE NUMBER OF CONTAINERS SUBMITTED													

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (G) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
DATE	TIME																	
<i>6/24/13</i>	<i>1000</i>	<i>PP-6 A</i>	☒	☒			☒	☒										
	<i>1005</i>	<i>PP-6 B</i>																
	<i>1025</i>	<i>PP-5 A</i>																
	<i>1030</i>	<i>PP-5 B</i>																
	<i>1045</i>	<i>PP-4 A</i>																
	<i>1050</i>	<i>PP-4 B</i>																
	<i>1055</i>	<i>PP-3 A</i>																
	<i>1100</i>	<i>PP-3 B</i>																
	<i>1130</i>	<i>PP-2 A</i>																
	<i>1135</i>	<i>PP-2 B</i>																
	<i>1155</i>	<i>PP-1 A</i>																
<i>✓</i>	<i>1700</i>	<i>PP-1 B</i>	☒	☒			☒	☒										

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>6/24/13</i>	TIME <i>1600</i>	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE) <i>Fed Ex</i>	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>06/25/13</i>	TIME <i>0930</i>	CUSTODY INTACT YES ☐ NO ☐	CUSTODY SEAL NO.	SAVANNAH LOG NO. <i>680-91689</i>	LABORATORY REMARKS <i>2.4°C</i>
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Serial Number 68867

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Savannah
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PROJECT REFERENCE <i>Global Air Suppl Studies</i>		PROJECT NO.	PROJECT LOCATION (STATE)	MATRIX TYPE		REQUIRED ANALYSIS										PAGE <i>2</i>	OF <i>2</i>	
TAL (LAB) PROJECT MANAGER		P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY ☐ DATE DUE _____ EXPEDITED REPORT DELIVERY (SURCHARGE) ☐ DATE DUE _____ NUMBER OF COOLERS SUBMITTED PER SHIPMENT: _____									
CLIENT (SITE) PM <i>Sam AS</i>		CLIENT PHONE	CLIENT FAX															
CLIENT NAME <i>CS</i>		CLIENT E-MAIL																
CLIENT ADDRESS																		
COMPANY CONTRACTING THIS WORK (if applicable)				PRESERVATIVE														
SAMPLE		SAMPLE IDENTIFICATION			NUMBER OF CONTAINERS SUBMITTED										REMARKS			
DATE	TIME																	
<i>6/24/13</i>	<i>0000</i>	<i>PP-100A</i>			<i>G</i>	<i>X</i>			<i>X</i>	<i>X</i>								
<i>✓</i>	<i>0000</i>	<i>PP-100B</i>																
<i>✓</i>	<i>0955</i>	<i>RB-1 EB-1</i>																
<i>Lab</i>	<i>Lab</i>	<i>Trip Blank Lot #052713</i>																
<i>6/24/13</i>	<i>1215</i>	<i>RB-1 (RB-PP GAC 06/25/13)</i>			<i>✓</i>	<i>✓</i>			<i>✓</i>	<i>✓</i>								
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RELINQUISHED BY: (SIGNATURE)		DATE	TIME			
<i>[Signature]</i>		<i>6/24/13</i>	<i>1800</i>															
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)		DATE	TIME			
<i>Fred EX</i>																		
LABORATORY USE ONLY																		
RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE	TIME	CUSTODY INTACT		CUSTODY SEAL NO.		SAVANNAH LOG NO.		LABORATORY REMARKS								
<i>[Signature]</i>		<i>06/25/13</i>	<i>0930</i>	YES ☐ NO ☐				<i>680-91689</i>		<i>2.4°C</i>								

Login Sample Receipt Checklist

Client: Ashland Inc.

Job Number: 680-91684-2

SDG Number: HGB082

Login Number: 91684

List Source: TestAmerica Savannah

List Number: 1

Creator: Conner, Keaton

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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	-27.2 C * dry ice, 2.4 C standard wet ice
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 containers received and the COC.	False	Refer to Job Narrative for details.
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	Insufficient volume received for MS/MSD.
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	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.
Project/Site: Gibbstown Clonmell Crk Suppl. (PP)

TestAmerica Job ID: 680-91684-2
SDG: HGB082

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		399.01	07-31-13
A2LA	ISO/IEC 17025		399.01	02-28-15
Arkansas DEQ	State Program	6	88-0692	02-01-14 *
California	NELAP	9	3217CA	07-31-13
Colorado	State Program	8	N/A	12-31-13
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	12-31-13
Georgia	State Program	4	N/A	06-30-14
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-13
Iowa	State Program	7	353	07-01-13 *
Kentucky	State Program	4	90084	12-31-13
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	30690	06-30-14
Louisiana	NELAP	6	LA100015	12-31-13
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-13
Massachusetts	State Program	1	M-GA006	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-14
Nebraska	State Program	7	TestAmerica-Savannah	06-30-13 *
New Jersey	NELAP	2	GA769	06-30-14
New York	NELAP	2	10842	04-01-14
North Carolina DENR	State Program	4	269	12-31-13
North Carolina DHHS	State Program	4	13701	07-31-13
Oklahoma	State Program	6	9984	08-31-13
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	01-01-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-13
USDA	Federal		SAV 3-04	04-07-14
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia	State Program	3	9950C	12-31-13
West Virginia DEP	State Program	3	94	09-30-13
Wisconsin	State Program	5	999819810	08-31-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Savannah

Appendix B

Using site-specific cumene solubility values for respective soil matrices across the Hercules Higgins site, cumene C-Sat values were calculated as follows:

$$\text{C-Sat} = S/\text{Pb} (\text{K}_{\text{oc}} * \text{F}_{\text{oc}} * \text{Pb} + \text{O}_w + \text{H}'\text{O}_a)$$

Where:

C-Sat = Soil Saturation for Cumene

S = Site-Specific Solubility of Cumene per Soil Matrix – 42.6 (coarse) - 107 (fine) mg/L - Site specific range

Pb = Dry Soil Bulk Density - 1.5 (NJDEP Default Value, 2013)

K_{oc} = Soil Organic Carbon/Water Partitioning Coefficient 697.8 L/kg (MCI – EPI Suite 2016)

F_{oc} = Fraction Organic Carbon in Soil – 0.003 (coarse) - 0.0017 (fine) g/g - Site specific average

O_w = Water-Filled Soil Porosity – 0.23 (NJDEP Default Value, 2013)

O_a = Air-Filled Soil Porosity – 0.18 (NJDEP Default Value, 2013)

H' = Dimensionless Henry's Law Constant - 0.47 (USEPA, 2015)

- Coarse

$$\text{C-Sat} = (42.6/1.5(697.8*0.00847*1.5+0.23*0.18*0.47))$$

$$\text{C-Sat} = 98.11 \text{ mg/kg}$$

- Fine

$$\text{C-Sat} = (107/1.5(697.8*0.00847*1.5+0.23*0.18*0.47))$$

$$\text{C-Sat} = 149.37 \text{ mg/kg}$$

Note: CSI believes that the K_{oc} derived using the Log K_{ow} is more appropriate to use for our Site than the K_{oc} based on the Molecular Connectivity Index or MCI (697.8 L/kg) for a variety of reasons but agrees to use the MCI value of 697.8 L/kg for this effort moving forward. As a side note of interest, we also observed that the National Institute of Health (NIH) and European Chemicals Agency (ECHA) reference cumene K_{oc} values of 820 and 884 L/kg, respectively. Using the MCI index for cumene K_{oc} lowers the range of C-Sat values to 98.11 mg/kg (fine soil) and 149.37 (coarse soil). While this represents a large difference in C-Sat values, very few Site samples have cumene concentrations that fall within this range. A query on the Site database returned 27 samples in 24 locations with concentrations between the lower ends of the C-Sat ranges (98.11 and 200.63 mg/kg). These 27 samples in 24 locations all fall within the footprint where appreciable cumene mass is generally considered to occur at the Site. Thus, CSI has revised our C-Sat calculations to incorporate the MCI K_{oc} value for cumene.

References:

New Jersey Department of Environmental Protection (NJDEP), *Development of Impact to Ground Water Soil Remediation Standards Using the Soil-Water Partition Equation*, Version 2.0, November 2013.

United States Environmental Protection Agency (USEPA), *Regional Screening Level (RSL) Chemical-specific Parameters Supporting Table*, November 2015

United States Environmental Protection Agency (USEPA), *Estimation Programs Interface Suite™ for Microsoft® Windows*, v 4.11, April 2016

Appendix B
Site Specific C-Sat Calculations
Former Hercules Higgins Plant; Gibbstown, NJ

	Coarse	Fine	Unit	Source
S = Site-Specific Solubility of Cumene per Soil Matrix	42.6	107	mg/L	Site Specific From the Site-Specific Solubility Study
Pb = Dry Soil Bulk Density	1.5	1.5	g/cm ³	NJDEP From 2013 NJDEP Guidance
K _{oc} = Soil Organic Carbon/Water Partitioning Coefficient	697.8	697.8	L/kg	EPA From EPI Suite - MCI
F _{oc} = Fraction Organic Carbon in Soil	0.003	0.0017	g/g	Site Specific Coarse from CPT-44 (17) fine from TW-4 (17.5)
O _w = Water-Filled Soil Porosity	0.23	0.23	v/v	NJDEP From 2013 NJDEP Guidance
O _a = Air-Filled Soil Porosity	0.18	0.18	v/v	NJDEP From 2013 NJDEP Guidance
H' = Dimensionless Henry's Law Constant	0.47	0.47	Unitless	EPA From EPA RBC table (November 2015)
C-Sat	98.11	149.37	mg/kg	Calculated

Notes

mg/l - milligrams per liter

g/cm³ - grams per cubic centimeter

L/kg - liters per kilogram

g/g - grams per gram

v/v - volume/volume

NJDEP - New Jersey Department of Environmental Protection

EPA - United States Environmental Protection Agency