

## ANALYTICAL REPORT

Job Number: 180-69061-1

Job Description: Harley Davidson

For:

Groundwater Sciences Corporation  
2601 Market Place Street, Suite 310  
Harrisburg, PA 17110-9307

Attention: Christopher O'Neil



Approved for release.  
Carrie L. Gamber  
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8/22/2017 7:43 AM

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08/22/2017

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

## 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.
^c	CCV Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.

## 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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)



## CASE NARRATIVE

**Client: Groundwater Sciences Corporation**

**Project: Harley Davidson**

**Report Number: 180-69061-1**

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 08/08/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.3 C.

There is no relinquished by time on the COC.

One out of three voa vials for the following sample was received broken: HD-MW-109S-0/1-0 (180-69061-26). Sufficient sample volume remained for analysis.

The following sample was received with headspace in two out of three voa vials: HD-MW-165-0/1-0 (180-69061-8). This sample was canceled and will be re-sampled and submitted under a new log in.

The following volatile sample was analyzed with significant headspace in three out of three voa vials: HD-MW-22-0/1-0 (180-69061-21). Significant headspace is defined as a bubble greater than 6 mm in diameter. This sample was canceled and will be re-sampled and submitted under a new log in.

The following volatile sample was analyzed with significant headspace in two out of two voa vials: HD-QC1-0/1-2 (180-69061-15). Significant headspace is defined as a bubble greater than 6 mm in diameter. This sample is the TRIP BLANK and after discussion with the client was analyzed and reported with this narrative note.

### **VOLATILES**

Reanalysis of the following sample was performed outside of the analytical holding time due to laboratory error: HD-MW-64D-0/1-0 (180-69061-22). The re-analysis was performed within two times the holding time. All data has been reported.

The following samples was diluted to bring the concentration of target analytes within the calibration range: HD-MW-161-0/1-0 (180-69061-23), HD-QC1-0/1-1 (180-69061-27), HD-MW-162-0/1-0 (180-69061-28), HD-MW-64S-0/1-0 (180-69061-20), HD-MW-64D-0/1-0 (180-69061-22), HD-MW-164-0/1-0 (180-69061-3), HD-MW-110-0/1-0 (180-69061-25), HD-MW-110-0/1-0 (180-69061-25[MS]) and HD-MW-110-0/1-0 (180-69061-25[MSD]). Elevated reporting limits (RLs) are provided.

1,2-Dibromoethane (EDB), Chlorobenzene and Styrene failed the recovery criteria low for the MS of sample HD-MW-110-0/1-0 (180-69061-25) in batch 180-219487. Several analytes failed the recovery criteria low for the MSD of sample HD-MW-110-0/1-0 (180-69061-25) in batch 180-219487.

The continuing calibration verification (CCV) analyzed in batch 180-219487 was outside the method criteria for the following analytes: 1,4-Dioxane and Carbon tetrachloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-219617 was outside the method criteria for the following analytes: 1,4-Dioxane, Acetone and Carbon disulfide. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-219759 was outside the method criteria for the following analytes: Acetone, Bromomethane and Vinyl acetate. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-220320 was outside the method criteria for the following analytes: 2-Butanone (MEK), 4-Methyl-2-pentanone (MIBK), 2-Hexanone and Acetone. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

## Client Sample ID: HD-MW-109D-0/1-0

## Lab Sample ID: 180-69061-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.8	J	5.0	3.1	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	2.2		1.0	0.20	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-175-0/1-0

## Lab Sample ID: 180-69061-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11		5.0	3.1	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-164-0/1-0

## Lab Sample ID: 180-69061-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	2.2	J	5.0	1.2	ug/L	5		8260C	Total/NA

## Client Sample ID: HD-MW-169-0/1-0

## Lab Sample ID: 180-69061-4

No Detections.

## Client Sample ID: HD-MW-170-0/1-0

## Lab Sample ID: 180-69061-5

No Detections.

## Client Sample ID: HD-MW-174-0/1-0

## Lab Sample ID: 180-69061-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.57	J	1.0	0.24	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-167-0/1-0

## Lab Sample ID: 180-69061-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.7		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	5.3		1.0	0.24	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-166-0/1-0

## Lab Sample ID: 180-69061-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.2		1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	1.3		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.94	J	1.0	0.24	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-168-0/1-0

## Lab Sample ID: 180-69061-10

No Detections.

## Client Sample ID: HD-MW-141A-0/1-0

## Lab Sample ID: 180-69061-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.3		1.0	0.30	ug/L	1		8260C	Total/NA
Trichloroethene	1.2		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	5.0		1.0	0.24	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

## Client Sample ID: HD-MW-171-0/1-0

## Lab Sample ID: 180-69061-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.24	J	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.2		1.0	0.24	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-QC1-0/1-4

## Lab Sample ID: 180-69061-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.9	J ^c	5.0	3.1	ug/L	1		8260C	Total/NA
Toluene	0.17	J	1.0	0.16	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-QC1-0/1-3

## Lab Sample ID: 180-69061-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.8	J ^c	5.0	3.1	ug/L	1		8260C	Total/NA
Toluene	0.19	J	1.0	0.16	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-QC1-0/1-2

## Lab Sample ID: 180-69061-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.8	^c	5.0	3.1	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-172-0/1-0

## Lab Sample ID: 180-69061-16

No Detections.

## Client Sample ID: HD-MW-173-0/1-0

## Lab Sample ID: 180-69061-17

No Detections.

## Client Sample ID: HD-MW-108D-0/1-0

## Lab Sample ID: 180-69061-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.38	J	1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	0.69	J	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.4		1.0	0.24	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-108S-0/1-0

## Lab Sample ID: 180-69061-19

No Detections.

## Client Sample ID: HD-MW-64S-0/1-0

## Lab Sample ID: 180-69061-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	11		5.0	0.99	ug/L	5		8260C	Total/NA
Tetrachloroethene	39		5.0	1.2	ug/L	5		8260C	Total/NA

## Client Sample ID: HD-MW-64D-0/1-0

## Lab Sample ID: 180-69061-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.27	J H	1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	3.9	H	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	330	E H	1.0	0.24	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

## Client Sample ID: HD-MW-64D-0/1-0 (Continued)

Lab Sample ID: 180-69061-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene - DL	3.4	J	10	2.0	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	300		10	2.4	ug/L	10		8260C	Total/NA

## Client Sample ID: HD-MW-161-0/1-0

Lab Sample ID: 180-69061-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.3		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	200	E	1.0	0.24	ug/L	1		8260C	Total/NA
Tetrachloroethene - DL	170		20	4.9	ug/L	20		8260C	Total/NA

## Client Sample ID: HD-MW-163-0/1-0

Lab Sample ID: 180-69061-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.62	J	1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	0.83	J	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	37		1.0	0.24	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-110-0/1-0

Lab Sample ID: 180-69061-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	44	F1	5.0	1.2	ug/L	5		8260C	Total/NA

## Client Sample ID: HD-MW-109S-0/1-0

Lab Sample ID: 180-69061-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.3		1.0	0.20	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-QC1-0/1-1

Lab Sample ID: 180-69061-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.60	J	1.0	0.27	ug/L	1		8260C	Total/NA
Trichloroethene	0.97	J	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	52	E	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform - DL	0.54	J	2.0	0.53	ug/L	2		8260C	Total/NA
Trichloroethene - DL	0.57	J	2.0	0.40	ug/L	2		8260C	Total/NA
Tetrachloroethene - DL	33		2.0	0.49	ug/L	2		8260C	Total/NA

## Client Sample ID: HD-MW-162-0/1-0

Lab Sample ID: 180-69061-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	51		20	4.0	ug/L	20		8260C	Total/NA
Tetrachloroethene	330		20	4.9	ug/L	20		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pittsburgh

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-109D-0/1-0**

**Date Collected: 08/02/17 10:55**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 05:40	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 05:40	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 05:40	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 05:40	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 05:40	1
<b>Acetone</b>	<b>4.8</b>	<b>J</b>	5.0	3.1	ug/L			08/09/17 05:40	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 05:40	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 05:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 05:40	1
<b>Methyl tert-butyl ether</b>	<b>2.2</b>		1.0	0.20	ug/L			08/09/17 05:40	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 05:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 05:40	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 05:40	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 05:40	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 05:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 05:40	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 05:40	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 05:40	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 05:40	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 05:40	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 05:40	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 05:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 05:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 05:40	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 05:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 05:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 05:40	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/09/17 05:40	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 05:40	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 05:40	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 05:40	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 05:40	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 05:40	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 05:40	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 05:40	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 05:40	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 05:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 05:40	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 05:40	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 05:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		65 - 121		08/09/17 05:40	1
Toluene-d8 (Surr)	89		73 - 120		08/09/17 05:40	1
4-Bromofluorobenzene (Surr)	106		80 - 120		08/09/17 05:40	1
Dibromofluoromethane (Surr)	93		73 - 120		08/09/17 05:40	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-175-0/1-0**

**Date Collected: 08/04/17 10:00**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 06:04	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 06:04	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 06:04	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 06:04	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 06:04	1
<b>Acetone</b>	<b>11</b>		5.0	3.1	ug/L			08/09/17 06:04	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 06:04	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 06:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 06:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 06:04	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 06:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 06:04	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 06:04	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 06:04	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 06:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 06:04	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 06:04	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 06:04	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 06:04	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 06:04	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 06:04	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 06:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 06:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 06:04	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 06:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 06:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 06:04	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/09/17 06:04	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 06:04	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 06:04	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 06:04	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 06:04	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 06:04	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 06:04	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 06:04	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 06:04	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 06:04	1
1,1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 06:04	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 06:04	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/09/17 06:04	1
Toluene-d8 (Surr)	87		73 - 120		08/09/17 06:04	1
4-Bromofluorobenzene (Surr)	109		80 - 120		08/09/17 06:04	1
Dibromofluoromethane (Surr)	97		73 - 120		08/09/17 06:04	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-164-0/1-0**

**Date Collected: 08/04/17 09:40**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.9	ug/L			08/09/17 06:28	5
Vinyl chloride	5.0	U	5.0	0.84	ug/L			08/09/17 06:28	5
Bromomethane	5.0	U	5.0	2.9	ug/L			08/09/17 06:28	5
Chloroethane	5.0	U	5.0	2.9	ug/L			08/09/17 06:28	5
1,1-Dichloroethene	5.0	U	5.0	1.6	ug/L			08/09/17 06:28	5
Acetone	25	U	25	16	ug/L			08/09/17 06:28	5
Carbon disulfide	5.0	U ^c	5.0	2.6	ug/L			08/09/17 06:28	5
Methylene Chloride	5.0	U	5.0	4.7	ug/L			08/09/17 06:28	5
trans-1,2-Dichloroethene	5.0	U	5.0	1.0	ug/L			08/09/17 06:28	5
Methyl tert-butyl ether	5.0	U	5.0	0.98	ug/L			08/09/17 06:28	5
1,1-Dichloroethane	5.0	U	5.0	1.7	ug/L			08/09/17 06:28	5
cis-1,2-Dichloroethene	5.0	U	5.0	1.5	ug/L			08/09/17 06:28	5
Bromochloromethane	5.0	U	5.0	1.8	ug/L			08/09/17 06:28	5
2-Butanone (MEK)	25	U	25	13	ug/L			08/09/17 06:28	5
Chloroform	5.0	U	5.0	1.3	ug/L			08/09/17 06:28	5
1,1,1-Trichloroethane	5.0	U	5.0	1.4	ug/L			08/09/17 06:28	5
Carbon tetrachloride	5.0	U	5.0	2.8	ug/L			08/09/17 06:28	5
Benzene	5.0	U	5.0	0.91	ug/L			08/09/17 06:28	5
1,2-Dichloroethane	5.0	U	5.0	1.2	ug/L			08/09/17 06:28	5
Trichloroethene	5.0	U	5.0	0.99	ug/L			08/09/17 06:28	5
1,2-Dichloropropane	5.0	U	5.0	1.7	ug/L			08/09/17 06:28	5
Bromodichloromethane	5.0	U	5.0	2.9	ug/L			08/09/17 06:28	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.6	ug/L			08/09/17 06:28	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			08/09/17 06:28	5
Toluene	5.0	U	5.0	0.78	ug/L			08/09/17 06:28	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.1	ug/L			08/09/17 06:28	5
1,1,2-Trichloroethane	5.0	U	5.0	1.5	ug/L			08/09/17 06:28	5
<b>Tetrachloroethene</b>	<b>2.2</b>	<b>J</b>	5.0	1.2	ug/L			08/09/17 06:28	5
2-Hexanone	25	U	25	10	ug/L			08/09/17 06:28	5
Dibromochloromethane	5.0	U	5.0	2.2	ug/L			08/09/17 06:28	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	2.6	ug/L			08/09/17 06:28	5
Chlorobenzene	5.0	U	5.0	0.73	ug/L			08/09/17 06:28	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.5	ug/L			08/09/17 06:28	5
Ethylbenzene	5.0	U	5.0	1.3	ug/L			08/09/17 06:28	5
Xylenes, Total	10	U	10	1.4	ug/L			08/09/17 06:28	5
Styrene	5.0	U	5.0	1.1	ug/L			08/09/17 06:28	5
Bromoform	5.0	U	5.0	3.8	ug/L			08/09/17 06:28	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.9	ug/L			08/09/17 06:28	5
Acrylonitrile	100	U	100	17	ug/L			08/09/17 06:28	5
1,4-Dioxane	1000	U	1000	78	ug/L			08/09/17 06:28	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/09/17 06:28	5
Toluene-d8 (Surr)	89		73 - 120		08/09/17 06:28	5
4-Bromofluorobenzene (Surr)	104		80 - 120		08/09/17 06:28	5
Dibromofluoromethane (Surr)	97		73 - 120		08/09/17 06:28	5



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-169-0/1-0**

**Date Collected: 08/04/17 11:45**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 06:52	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 06:52	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 06:52	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 06:52	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 06:52	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 06:52	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 06:52	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 06:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 06:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 06:52	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 06:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 06:52	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 06:52	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 06:52	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 06:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 06:52	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 06:52	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 06:52	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 06:52	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 06:52	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 06:52	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 06:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 06:52	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 06:52	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 06:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 06:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 06:52	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/09/17 06:52	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 06:52	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 06:52	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 06:52	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 06:52	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 06:52	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 06:52	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 06:52	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 06:52	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 06:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 06:52	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 06:52	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 06:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		65 - 121		08/09/17 06:52	1
Toluene-d8 (Surr)	86		73 - 120		08/09/17 06:52	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/09/17 06:52	1
Dibromofluoromethane (Surr)	97		73 - 120		08/09/17 06:52	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-170-0/1-0**

**Date Collected: 08/04/17 09:45**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 07:15	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 07:15	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 07:15	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 07:15	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 07:15	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 07:15	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 07:15	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 07:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 07:15	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 07:15	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 07:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 07:15	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 07:15	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 07:15	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 07:15	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 07:15	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 07:15	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 07:15	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 07:15	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 07:15	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 07:15	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 07:15	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 07:15	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 07:15	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 07:15	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 07:15	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 07:15	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/09/17 07:15	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 07:15	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 07:15	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 07:15	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 07:15	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 07:15	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 07:15	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 07:15	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 07:15	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 07:15	1
1,1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 07:15	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 07:15	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 07:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/09/17 07:15	1
Toluene-d8 (Surr)	88		73 - 120		08/09/17 07:15	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/09/17 07:15	1
Dibromofluoromethane (Surr)	98		73 - 120		08/09/17 07:15	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-174-0/1-0**

**Date Collected: 08/04/17 10:10**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 08:03	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 08:03	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 08:03	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 08:03	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 08:03	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 08:03	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 08:03	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 08:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 08:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 08:03	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 08:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 08:03	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 08:03	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 08:03	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 08:03	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 08:03	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 08:03	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 08:03	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 08:03	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 08:03	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 08:03	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 08:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 08:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 08:03	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 08:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 08:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 08:03	1
<b>Tetrachloroethene</b>	<b>0.57</b>	<b>J</b>	1.0	0.24	ug/L			08/09/17 08:03	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 08:03	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 08:03	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 08:03	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 08:03	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 08:03	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 08:03	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 08:03	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 08:03	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 08:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 08:03	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 08:03	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 08:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		65 - 121		08/09/17 08:03	1
Toluene-d8 (Surr)	86		73 - 120		08/09/17 08:03	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/09/17 08:03	1
Dibromofluoromethane (Surr)	101		73 - 120		08/09/17 08:03	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-167-0/1-0**

**Date Collected: 08/04/17 13:05**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-7**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 08:27	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 08:27	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 08:27	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 08:27	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 08:27	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 08:27	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 08:27	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 08:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 08:27	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 08:27	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 08:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 08:27	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 08:27	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 08:27	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 08:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 08:27	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 08:27	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 08:27	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 08:27	1
<b>Trichloroethene</b>	<b>1.7</b>		1.0	0.20	ug/L			08/09/17 08:27	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 08:27	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 08:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 08:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 08:27	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 08:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 08:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 08:27	1
<b>Tetrachloroethene</b>	<b>5.3</b>		1.0	0.24	ug/L			08/09/17 08:27	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 08:27	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 08:27	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 08:27	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 08:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 08:27	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 08:27	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 08:27	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 08:27	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 08:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 08:27	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 08:27	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 08:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		65 - 121		08/09/17 08:27	1
Toluene-d8 (Surr)	85		73 - 120		08/09/17 08:27	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/09/17 08:27	1
Dibromofluoromethane (Surr)	99		73 - 120		08/09/17 08:27	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-166-0/1-0**

**Date Collected: 08/04/17 13:25**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-9**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 09:16	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 09:16	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 09:16	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 09:16	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 09:16	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 09:16	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 09:16	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 09:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 09:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 09:16	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 09:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 09:16	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 09:16	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 09:16	1
<b>Chloroform</b>	<b>1.2</b>		1.0	0.27	ug/L			08/09/17 09:16	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 09:16	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 09:16	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 09:16	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 09:16	1
<b>Trichloroethene</b>	<b>1.3</b>		1.0	0.20	ug/L			08/09/17 09:16	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 09:16	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 09:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 09:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 09:16	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 09:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 09:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 09:16	1
<b>Tetrachloroethene</b>	<b>0.94</b>	<b>J</b>	1.0	0.24	ug/L			08/09/17 09:16	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 09:16	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 09:16	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 09:16	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 09:16	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 09:16	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 09:16	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 09:16	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 09:16	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 09:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 09:16	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 09:16	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 09:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		65 - 121		08/09/17 09:16	1
Toluene-d8 (Surr)	86		73 - 120		08/09/17 09:16	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/09/17 09:16	1
Dibromofluoromethane (Surr)	101		73 - 120		08/09/17 09:16	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-168-0/1-0**

**Date Collected: 08/04/17 12:45**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-10**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 09:40	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 09:40	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 09:40	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 09:40	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 09:40	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 09:40	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 09:40	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 09:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 09:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 09:40	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 09:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 09:40	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 09:40	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 09:40	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 09:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 09:40	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 09:40	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 09:40	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 09:40	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 09:40	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 09:40	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 09:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 09:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 09:40	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 09:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 09:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 09:40	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/09/17 09:40	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 09:40	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 09:40	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 09:40	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 09:40	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 09:40	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 09:40	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 09:40	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 09:40	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 09:40	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 09:40	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 09:40	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 09:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/09/17 09:40	1
Toluene-d8 (Surr)	84		73 - 120		08/09/17 09:40	1
4-Bromofluorobenzene (Surr)	100		80 - 120		08/09/17 09:40	1
Dibromofluoromethane (Surr)	98		73 - 120		08/09/17 09:40	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-141A-0/1-0**

**Date Collected: 08/04/17 14:40**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-11**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 10:28	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 10:28	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 10:28	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 10:28	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 10:28	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 10:28	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 10:28	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 10:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 10:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 10:28	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 10:28	1
<b>cis-1,2-Dichloroethene</b>	<b>2.3</b>		1.0	0.30	ug/L			08/09/17 10:28	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 10:28	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 10:28	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 10:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 10:28	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 10:28	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 10:28	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 10:28	1
<b>Trichloroethene</b>	<b>1.2</b>		1.0	0.20	ug/L			08/09/17 10:28	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 10:28	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 10:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 10:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 10:28	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 10:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 10:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 10:28	1
<b>Tetrachloroethene</b>	<b>5.0</b>		1.0	0.24	ug/L			08/09/17 10:28	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 10:28	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 10:28	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 10:28	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 10:28	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 10:28	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 10:28	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 10:28	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 10:28	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 10:28	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 10:28	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 10:28	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 10:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		65 - 121		08/09/17 10:28	1
Toluene-d8 (Surr)	87		73 - 120		08/09/17 10:28	1
4-Bromofluorobenzene (Surr)	105		80 - 120		08/09/17 10:28	1
Dibromofluoromethane (Surr)	104		73 - 120		08/09/17 10:28	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-171-0/1-0**

**Date Collected: 08/04/17 12:00**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-12**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 10:52	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 10:52	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 10:52	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 10:52	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 10:52	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 10:52	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/09/17 10:52	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 10:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 10:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 10:52	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 10:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 10:52	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 10:52	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 10:52	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 10:52	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 10:52	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 10:52	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 10:52	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 10:52	1
<b>Trichloroethene</b>	<b>0.24</b>	<b>J</b>	1.0	0.20	ug/L			08/09/17 10:52	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 10:52	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 10:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 10:52	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 10:52	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 10:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 10:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 10:52	1
<b>Tetrachloroethene</b>	<b>1.2</b>		1.0	0.24	ug/L			08/09/17 10:52	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 10:52	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 10:52	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 10:52	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 10:52	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 10:52	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 10:52	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 10:52	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 10:52	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 10:52	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 10:52	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 10:52	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 10:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		65 - 121		08/09/17 10:52	1
Toluene-d8 (Surr)	87		73 - 120		08/09/17 10:52	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/09/17 10:52	1
Dibromofluoromethane (Surr)	100		73 - 120		08/09/17 10:52	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-QC1-0/1-4**

**Date Collected: 08/04/17 12:25**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-13**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 02:26	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 02:26	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 02:26	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 02:26	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 02:26	1
<b>Acetone</b>	<b>4.9</b>	<b>J ^c</b>	5.0	3.1	ug/L			08/10/17 02:26	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 02:26	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 02:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 02:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 02:26	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 02:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 02:26	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 02:26	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 02:26	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 02:26	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 02:26	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 02:26	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 02:26	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 02:26	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 02:26	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 02:26	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 02:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 02:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 02:26	1
<b>Toluene</b>	<b>0.17</b>	<b>J</b>	1.0	0.16	ug/L			08/10/17 02:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 02:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 02:26	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 02:26	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 02:26	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 02:26	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 02:26	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 02:26	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 02:26	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 02:26	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 02:26	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 02:26	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 02:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 02:26	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 02:26	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/10/17 02:26	1
Toluene-d8 (Surr)	84		73 - 120		08/10/17 02:26	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/10/17 02:26	1
Dibromofluoromethane (Surr)	99		73 - 120		08/10/17 02:26	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-QC1-0/1-3**

**Date Collected: 08/04/17 12:35**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-14**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 03:41	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 03:41	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 03:41	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 03:41	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 03:41	1
<b>Acetone</b>	<b>4.8</b>	<b>J ^c</b>	5.0	3.1	ug/L			08/10/17 03:41	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 03:41	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 03:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 03:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 03:41	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 03:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 03:41	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 03:41	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 03:41	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 03:41	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 03:41	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 03:41	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 03:41	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 03:41	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 03:41	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 03:41	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 03:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 03:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 03:41	1
<b>Toluene</b>	<b>0.19</b>	<b>J</b>	1.0	0.16	ug/L			08/10/17 03:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 03:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 03:41	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 03:41	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 03:41	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 03:41	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 03:41	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 03:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 03:41	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 03:41	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 03:41	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 03:41	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 03:41	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 03:41	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 03:41	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 03:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		65 - 121		08/10/17 03:41	1
Toluene-d8 (Surr)	83		73 - 120		08/10/17 03:41	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/10/17 03:41	1
Dibromofluoromethane (Surr)	97		73 - 120		08/10/17 03:41	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-QC1-0/1-2**

**Date Collected: 08/04/17 00:00**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-15**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 04:05	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 04:05	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 04:05	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 04:05	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 04:05	1
<b>Acetone</b>	<b>5.8</b>	<b>^c</b>	5.0	3.1	ug/L			08/10/17 04:05	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 04:05	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 04:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 04:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 04:05	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 04:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 04:05	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 04:05	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 04:05	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 04:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 04:05	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 04:05	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 04:05	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 04:05	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 04:05	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 04:05	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 04:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 04:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 04:05	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 04:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 04:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 04:05	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 04:05	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 04:05	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 04:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 04:05	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 04:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 04:05	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 04:05	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 04:05	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 04:05	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 04:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 04:05	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 04:05	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 04:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		65 - 121		08/10/17 04:05	1
Toluene-d8 (Surr)	86		73 - 120		08/10/17 04:05	1
4-Bromofluorobenzene (Surr)	104		80 - 120		08/10/17 04:05	1
Dibromofluoromethane (Surr)	97		73 - 120		08/10/17 04:05	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-172-0/1-0**

**Date Collected: 08/03/17 10:25**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-16**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 04:29	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 04:29	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 04:29	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 04:29	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 04:29	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/10/17 04:29	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 04:29	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 04:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 04:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 04:29	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 04:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 04:29	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 04:29	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 04:29	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 04:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 04:29	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 04:29	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 04:29	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 04:29	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 04:29	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 04:29	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 04:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 04:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 04:29	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 04:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 04:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 04:29	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 04:29	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 04:29	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 04:29	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 04:29	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 04:29	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 04:29	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 04:29	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 04:29	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 04:29	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 04:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 04:29	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 04:29	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 04:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		65 - 121		08/10/17 04:29	1
Toluene-d8 (Surr)	86		73 - 120		08/10/17 04:29	1
4-Bromofluorobenzene (Surr)	104		80 - 120		08/10/17 04:29	1
Dibromofluoromethane (Surr)	99		73 - 120		08/10/17 04:29	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-173-0/1-0**

**Date Collected: 08/03/17 10:30**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-17**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 04:53	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 04:53	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 04:53	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 04:53	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 04:53	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/10/17 04:53	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 04:53	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 04:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 04:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 04:53	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 04:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 04:53	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 04:53	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 04:53	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 04:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 04:53	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 04:53	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 04:53	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 04:53	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 04:53	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 04:53	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 04:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 04:53	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 04:53	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 04:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 04:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 04:53	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 04:53	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 04:53	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 04:53	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 04:53	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 04:53	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 04:53	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 04:53	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 04:53	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 04:53	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 04:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 04:53	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 04:53	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 04:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/10/17 04:53	1
Toluene-d8 (Surr)	86		73 - 120		08/10/17 04:53	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/10/17 04:53	1
Dibromofluoromethane (Surr)	102		73 - 120		08/10/17 04:53	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-108D-0/1-0**

**Date Collected: 08/03/17 12:28**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-18**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 05:17	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 05:17	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 05:17	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 05:17	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 05:17	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/10/17 05:17	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 05:17	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 05:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 05:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 05:17	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 05:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 05:17	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 05:17	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 05:17	1
<b>Chloroform</b>	<b>0.38</b>	<b>J</b>	1.0	0.27	ug/L			08/10/17 05:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 05:17	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 05:17	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 05:17	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 05:17	1
<b>Trichloroethene</b>	<b>0.69</b>	<b>J</b>	1.0	0.20	ug/L			08/10/17 05:17	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 05:17	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 05:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 05:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 05:17	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 05:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 05:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 05:17	1
<b>Tetrachloroethene</b>	<b>1.4</b>		1.0	0.24	ug/L			08/10/17 05:17	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 05:17	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 05:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 05:17	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 05:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 05:17	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 05:17	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 05:17	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 05:17	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 05:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 05:17	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 05:17	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 05:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		65 - 121		08/10/17 05:17	1
Toluene-d8 (Surr)	85		73 - 120		08/10/17 05:17	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/10/17 05:17	1
Dibromofluoromethane (Surr)	101		73 - 120		08/10/17 05:17	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-108S-0/1-0**

**Date Collected: 08/03/17 15:08**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-19**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 06:04	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 06:04	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 06:04	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 06:04	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 06:04	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/10/17 06:04	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 06:04	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 06:04	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 06:04	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 06:04	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 06:04	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 06:04	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 06:04	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 06:04	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 06:04	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 06:04	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 06:04	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 06:04	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 06:04	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 06:04	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 06:04	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 06:04	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 06:04	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 06:04	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 06:04	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 06:04	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 06:04	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 06:04	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 06:04	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 06:04	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 06:04	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 06:04	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 06:04	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 06:04	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 06:04	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 06:04	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 06:04	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 06:04	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 06:04	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		65 - 121		08/10/17 06:04	1
Toluene-d8 (Surr)	85		73 - 120		08/10/17 06:04	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/10/17 06:04	1
Dibromofluoromethane (Surr)	100		73 - 120		08/10/17 06:04	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-64S-0/1-0**

**Date Collected: 08/03/17 07:35**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-20**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.9	ug/L			08/10/17 06:28	5
Vinyl chloride	5.0	U	5.0	0.84	ug/L			08/10/17 06:28	5
Bromomethane	5.0	U	5.0	2.9	ug/L			08/10/17 06:28	5
Chloroethane	5.0	U	5.0	2.9	ug/L			08/10/17 06:28	5
1,1-Dichloroethene	5.0	U	5.0	1.6	ug/L			08/10/17 06:28	5
Acetone	25	U ^c	25	16	ug/L			08/10/17 06:28	5
Carbon disulfide	5.0	U ^c	5.0	2.6	ug/L			08/10/17 06:28	5
Methylene Chloride	5.0	U	5.0	4.7	ug/L			08/10/17 06:28	5
trans-1,2-Dichloroethene	5.0	U	5.0	1.0	ug/L			08/10/17 06:28	5
Methyl tert-butyl ether	5.0	U	5.0	0.98	ug/L			08/10/17 06:28	5
1,1-Dichloroethane	5.0	U	5.0	1.7	ug/L			08/10/17 06:28	5
cis-1,2-Dichloroethene	5.0	U	5.0	1.5	ug/L			08/10/17 06:28	5
Bromochloromethane	5.0	U	5.0	1.8	ug/L			08/10/17 06:28	5
2-Butanone (MEK)	25	U	25	13	ug/L			08/10/17 06:28	5
Chloroform	5.0	U	5.0	1.3	ug/L			08/10/17 06:28	5
1,1,1-Trichloroethane	5.0	U	5.0	1.4	ug/L			08/10/17 06:28	5
Carbon tetrachloride	5.0	U	5.0	2.8	ug/L			08/10/17 06:28	5
Benzene	5.0	U	5.0	0.91	ug/L			08/10/17 06:28	5
1,2-Dichloroethane	5.0	U	5.0	1.2	ug/L			08/10/17 06:28	5
<b>Trichloroethene</b>	<b>11</b>		5.0	0.99	ug/L			08/10/17 06:28	5
1,2-Dichloropropane	5.0	U	5.0	1.7	ug/L			08/10/17 06:28	5
Bromodichloromethane	5.0	U	5.0	2.9	ug/L			08/10/17 06:28	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.6	ug/L			08/10/17 06:28	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			08/10/17 06:28	5
Toluene	5.0	U	5.0	0.78	ug/L			08/10/17 06:28	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.1	ug/L			08/10/17 06:28	5
1,1,2-Trichloroethane	5.0	U	5.0	1.5	ug/L			08/10/17 06:28	5
<b>Tetrachloroethene</b>	<b>39</b>		5.0	1.2	ug/L			08/10/17 06:28	5
2-Hexanone	25	U	25	10	ug/L			08/10/17 06:28	5
Dibromochloromethane	5.0	U	5.0	2.2	ug/L			08/10/17 06:28	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	2.6	ug/L			08/10/17 06:28	5
Chlorobenzene	5.0	U	5.0	0.73	ug/L			08/10/17 06:28	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.5	ug/L			08/10/17 06:28	5
Ethylbenzene	5.0	U	5.0	1.3	ug/L			08/10/17 06:28	5
Xylenes, Total	10	U	10	1.4	ug/L			08/10/17 06:28	5
Styrene	5.0	U	5.0	1.1	ug/L			08/10/17 06:28	5
Bromoform	5.0	U	5.0	3.8	ug/L			08/10/17 06:28	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.9	ug/L			08/10/17 06:28	5
Acrylonitrile	100	U	100	17	ug/L			08/10/17 06:28	5
1,4-Dioxane	1000	U	1000	78	ug/L			08/10/17 06:28	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		65 - 121		08/10/17 06:28	5
Toluene-d8 (Surr)	85		73 - 120		08/10/17 06:28	5
4-Bromofluorobenzene (Surr)	105		80 - 120		08/10/17 06:28	5
Dibromofluoromethane (Surr)	104		73 - 120		08/10/17 06:28	5



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-64D-0/1-0**

**Date Collected: 08/01/17 15:12**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-22**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U H	1.0	0.38	ug/L			08/17/17 11:07	1
Vinyl chloride	1.0	U H	1.0	0.17	ug/L			08/17/17 11:07	1
Bromomethane	1.0	U H	1.0	0.59	ug/L			08/17/17 11:07	1
Chloroethane	1.0	U H	1.0	0.58	ug/L			08/17/17 11:07	1
1,1-Dichloroethene	1.0	U H	1.0	0.32	ug/L			08/17/17 11:07	1
Acetone	5.0	U H ^c	5.0	3.1	ug/L			08/17/17 11:07	1
Carbon disulfide	1.0	U H	1.0	0.53	ug/L			08/17/17 11:07	1
Methylene Chloride	1.0	U H	1.0	0.94	ug/L			08/17/17 11:07	1
trans-1,2-Dichloroethene	1.0	U H	1.0	0.20	ug/L			08/17/17 11:07	1
Methyl tert-butyl ether	1.0	U H	1.0	0.20	ug/L			08/17/17 11:07	1
1,1-Dichloroethane	1.0	U H	1.0	0.34	ug/L			08/17/17 11:07	1
cis-1,2-Dichloroethene	1.0	U H	1.0	0.30	ug/L			08/17/17 11:07	1
Bromochloromethane	1.0	U H	1.0	0.36	ug/L			08/17/17 11:07	1
2-Butanone (MEK)	5.0	U H ^c	5.0	2.6	ug/L			08/17/17 11:07	1
<b>Chloroform</b>	<b>0.27</b>	<b>J H</b>	1.0	0.27	ug/L			08/17/17 11:07	1
1,1,1-Trichloroethane	1.0	U H	1.0	0.27	ug/L			08/17/17 11:07	1
Carbon tetrachloride	1.0	U H	1.0	0.56	ug/L			08/17/17 11:07	1
Benzene	1.0	U H	1.0	0.18	ug/L			08/17/17 11:07	1
1,2-Dichloroethane	1.0	U H	1.0	0.24	ug/L			08/17/17 11:07	1
<b>Trichloroethene</b>	<b>3.9</b>	<b>H</b>	1.0	0.20	ug/L			08/17/17 11:07	1
1,2-Dichloropropane	1.0	U H	1.0	0.35	ug/L			08/17/17 11:07	1
Bromodichloromethane	1.0	U H	1.0	0.57	ug/L			08/17/17 11:07	1
cis-1,3-Dichloropropene	1.0	U H	1.0	0.32	ug/L			08/17/17 11:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U H ^c	5.0	2.2	ug/L			08/17/17 11:07	1
Toluene	1.0	U H	1.0	0.16	ug/L			08/17/17 11:07	1
trans-1,3-Dichloropropene	1.0	U H	1.0	0.22	ug/L			08/17/17 11:07	1
1,1,2-Trichloroethane	1.0	U H	1.0	0.31	ug/L			08/17/17 11:07	1
<b>Tetrachloroethene</b>	<b>330</b>	<b>E H</b>	1.0	0.24	ug/L			08/17/17 11:07	1
2-Hexanone	5.0	U H ^c	5.0	2.0	ug/L			08/17/17 11:07	1
Dibromochloromethane	1.0	U H	1.0	0.44	ug/L			08/17/17 11:07	1
1,2-Dibromoethane (EDB)	1.0	U H	1.0	0.51	ug/L			08/17/17 11:07	1
Chlorobenzene	1.0	U H	1.0	0.15	ug/L			08/17/17 11:07	1
1,1,1,2-Tetrachloroethane	1.0	U H	1.0	0.49	ug/L			08/17/17 11:07	1
Ethylbenzene	1.0	U H	1.0	0.25	ug/L			08/17/17 11:07	1
Xylenes, Total	2.0	U H	2.0	0.27	ug/L			08/17/17 11:07	1
Styrene	1.0	U H	1.0	0.22	ug/L			08/17/17 11:07	1
Bromoform	1.0	U H	1.0	0.76	ug/L			08/17/17 11:07	1
1,1,1,2-Tetrachloroethane	1.0	U H	1.0	0.37	ug/L			08/17/17 11:07	1
Acrylonitrile	20	U H	20	3.3	ug/L			08/17/17 11:07	1
1,4-Dioxane	200	U H	200	16	ug/L			08/17/17 11:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		65 - 121		08/17/17 11:07	1
Toluene-d8 (Surr)	91		73 - 120		08/17/17 11:07	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/17/17 11:07	1
Dibromofluoromethane (Surr)	103		73 - 120		08/17/17 11:07	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-161-0/1-0**

**Date Collected: 08/01/17 15:25**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-23**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 08:28	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 08:28	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 08:28	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 08:28	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 08:28	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/10/17 08:28	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 08:28	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 08:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 08:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 08:28	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 08:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 08:28	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 08:28	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 08:28	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 08:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 08:28	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 08:28	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 08:28	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 08:28	1
<b>Trichloroethene</b>	<b>4.3</b>		1.0	0.20	ug/L			08/10/17 08:28	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 08:28	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 08:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 08:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 08:28	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 08:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 08:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 08:28	1
<b>Tetrachloroethene</b>	<b>200 E</b>		1.0	0.24	ug/L			08/10/17 08:28	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 08:28	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 08:28	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 08:28	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 08:28	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 08:28	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 08:28	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 08:28	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 08:28	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 08:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 08:28	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 08:28	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 08:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		65 - 121		08/10/17 08:28	1
Toluene-d8 (Surr)	82		73 - 120		08/10/17 08:28	1
4-Bromofluorobenzene (Surr)	102		80 - 120		08/10/17 08:28	1
Dibromofluoromethane (Surr)	104		73 - 120		08/10/17 08:28	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-163-0/1-0**

**Date Collected: 08/01/17 13:29**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-24**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/11/17 08:33	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/11/17 08:33	1
Bromomethane	1.0	U ^c	1.0	0.59	ug/L			08/11/17 08:33	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/11/17 08:33	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/11/17 08:33	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/11/17 08:33	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			08/11/17 08:33	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/11/17 08:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/11/17 08:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/11/17 08:33	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/11/17 08:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/11/17 08:33	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/11/17 08:33	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/11/17 08:33	1
<b>Chloroform</b>	<b>0.62</b>	<b>J</b>	1.0	0.27	ug/L			08/11/17 08:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/11/17 08:33	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/11/17 08:33	1
Benzene	1.0	U	1.0	0.18	ug/L			08/11/17 08:33	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/11/17 08:33	1
<b>Trichloroethene</b>	<b>0.83</b>	<b>J</b>	1.0	0.20	ug/L			08/11/17 08:33	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/11/17 08:33	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/11/17 08:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/11/17 08:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/11/17 08:33	1
Toluene	1.0	U	1.0	0.16	ug/L			08/11/17 08:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/11/17 08:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/11/17 08:33	1
<b>Tetrachloroethene</b>	<b>37</b>		1.0	0.24	ug/L			08/11/17 08:33	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/11/17 08:33	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/11/17 08:33	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/11/17 08:33	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/11/17 08:33	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/11/17 08:33	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/11/17 08:33	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/11/17 08:33	1
Styrene	1.0	U	1.0	0.22	ug/L			08/11/17 08:33	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/11/17 08:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/11/17 08:33	1
Acrylonitrile	20	U	20	3.3	ug/L			08/11/17 08:33	1
1,4-Dioxane	200	U	200	16	ug/L			08/11/17 08:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		65 - 121		08/11/17 08:33	1
Toluene-d8 (Surr)	88		73 - 120		08/11/17 08:33	1
4-Bromofluorobenzene (Surr)	99		80 - 120		08/11/17 08:33	1
Dibromofluoromethane (Surr)	99		73 - 120		08/11/17 08:33	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-110-0/1-0**

**Date Collected: 08/02/17 13:20**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-25**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.9	ug/L			08/09/17 04:03	5
Vinyl chloride	5.0	U	5.0	0.84	ug/L			08/09/17 04:03	5
Bromomethane	5.0	U	5.0	2.9	ug/L			08/09/17 04:03	5
Chloroethane	5.0	U	5.0	2.9	ug/L			08/09/17 04:03	5
1,1-Dichloroethene	5.0	U	5.0	1.6	ug/L			08/09/17 04:03	5
Acetone	25	U	25	16	ug/L			08/09/17 04:03	5
Carbon disulfide	5.0	U ^c	5.0	2.6	ug/L			08/09/17 04:03	5
Methylene Chloride	5.0	U	5.0	4.7	ug/L			08/09/17 04:03	5
trans-1,2-Dichloroethene	5.0	U	5.0	1.0	ug/L			08/09/17 04:03	5
Methyl tert-butyl ether	5.0	U	5.0	0.98	ug/L			08/09/17 04:03	5
1,1-Dichloroethane	5.0	U	5.0	1.7	ug/L			08/09/17 04:03	5
cis-1,2-Dichloroethene	5.0	U	5.0	1.5	ug/L			08/09/17 04:03	5
Bromochloromethane	5.0	U	5.0	1.8	ug/L			08/09/17 04:03	5
2-Butanone (MEK)	25	U	25	13	ug/L			08/09/17 04:03	5
Chloroform	5.0	U	5.0	1.3	ug/L			08/09/17 04:03	5
1,1,1-Trichloroethane	5.0	U	5.0	1.4	ug/L			08/09/17 04:03	5
Carbon tetrachloride	5.0	U	5.0	2.8	ug/L			08/09/17 04:03	5
Benzene	5.0	U	5.0	0.91	ug/L			08/09/17 04:03	5
1,2-Dichloroethane	5.0	U	5.0	1.2	ug/L			08/09/17 04:03	5
Trichloroethene	5.0	U	5.0	0.99	ug/L			08/09/17 04:03	5
1,2-Dichloropropane	5.0	U	5.0	1.7	ug/L			08/09/17 04:03	5
Bromodichloromethane	5.0	U	5.0	2.9	ug/L			08/09/17 04:03	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.6	ug/L			08/09/17 04:03	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			08/09/17 04:03	5
Toluene	5.0	U F1	5.0	0.78	ug/L			08/09/17 04:03	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.1	ug/L			08/09/17 04:03	5
1,1,2-Trichloroethane	5.0	U	5.0	1.5	ug/L			08/09/17 04:03	5
<b>Tetrachloroethene</b>	<b>44</b>	<b>F1</b>	5.0	1.2	ug/L			08/09/17 04:03	5
2-Hexanone	25	U	25	10	ug/L			08/09/17 04:03	5
Dibromochloromethane	5.0	U	5.0	2.2	ug/L			08/09/17 04:03	5
1,2-Dibromoethane (EDB)	5.0	U F1	5.0	2.6	ug/L			08/09/17 04:03	5
Chlorobenzene	5.0	U F1	5.0	0.73	ug/L			08/09/17 04:03	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.5	ug/L			08/09/17 04:03	5
Ethylbenzene	5.0	U F1	5.0	1.3	ug/L			08/09/17 04:03	5
Xylenes, Total	10	U F1	10	1.4	ug/L			08/09/17 04:03	5
Styrene	5.0	U F1	5.0	1.1	ug/L			08/09/17 04:03	5
Bromoform	5.0	U	5.0	3.8	ug/L			08/09/17 04:03	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.9	ug/L			08/09/17 04:03	5
Acrylonitrile	100	U	100	17	ug/L			08/09/17 04:03	5
1,4-Dioxane	1000	U	1000	78	ug/L			08/09/17 04:03	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/09/17 04:03	5
Toluene-d8 (Surr)	85		73 - 120		08/09/17 04:03	5
4-Bromofluorobenzene (Surr)	102		80 - 120		08/09/17 04:03	5
Dibromofluoromethane (Surr)	98		73 - 120		08/09/17 04:03	5

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-109S-0/1-0**

**Date Collected: 08/02/17 12:10**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-26**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/11/17 08:09	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/11/17 08:09	1
Bromomethane	1.0	U ^c	1.0	0.59	ug/L			08/11/17 08:09	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/11/17 08:09	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/11/17 08:09	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/11/17 08:09	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			08/11/17 08:09	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/11/17 08:09	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/11/17 08:09	1
<b>Methyl tert-butyl ether</b>	<b>1.3</b>		1.0	0.20	ug/L			08/11/17 08:09	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/11/17 08:09	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/11/17 08:09	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/11/17 08:09	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/11/17 08:09	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/11/17 08:09	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/11/17 08:09	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/11/17 08:09	1
Benzene	1.0	U	1.0	0.18	ug/L			08/11/17 08:09	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/11/17 08:09	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/11/17 08:09	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/11/17 08:09	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/11/17 08:09	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/11/17 08:09	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/11/17 08:09	1
Toluene	1.0	U	1.0	0.16	ug/L			08/11/17 08:09	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/11/17 08:09	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/11/17 08:09	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/11/17 08:09	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/11/17 08:09	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/11/17 08:09	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/11/17 08:09	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/11/17 08:09	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/11/17 08:09	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/11/17 08:09	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/11/17 08:09	1
Styrene	1.0	U	1.0	0.22	ug/L			08/11/17 08:09	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/11/17 08:09	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/11/17 08:09	1
Acrylonitrile	20	U	20	3.3	ug/L			08/11/17 08:09	1
1,4-Dioxane	200	U	200	16	ug/L			08/11/17 08:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		65 - 121		08/11/17 08:09	1
Toluene-d8 (Surr)	91		73 - 120		08/11/17 08:09	1
4-Bromofluorobenzene (Surr)	101		80 - 120		08/11/17 08:09	1
Dibromofluoromethane (Surr)	96		73 - 120		08/11/17 08:09	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-QC1-0/1-1**

**Date Collected: 08/02/17 12:00**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-27**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 09:40	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 09:40	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 09:40	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 09:40	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 09:40	1
Acetone	5.0	U ^c	5.0	3.1	ug/L			08/10/17 09:40	1
Carbon disulfide	1.0	U ^c	1.0	0.53	ug/L			08/10/17 09:40	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 09:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 09:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 09:40	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 09:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 09:40	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 09:40	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 09:40	1
<b>Chloroform</b>	<b>0.60</b>	<b>J</b>	1.0	0.27	ug/L			08/10/17 09:40	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 09:40	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 09:40	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 09:40	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 09:40	1
<b>Trichloroethene</b>	<b>0.97</b>	<b>J</b>	1.0	0.20	ug/L			08/10/17 09:40	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 09:40	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 09:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 09:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 09:40	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 09:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 09:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 09:40	1
<b>Tetrachloroethene</b>	<b>52</b>	<b>E</b>	1.0	0.24	ug/L			08/10/17 09:40	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 09:40	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 09:40	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 09:40	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 09:40	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 09:40	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 09:40	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 09:40	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 09:40	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 09:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 09:40	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 09:40	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 09:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		65 - 121		08/10/17 09:40	1
Toluene-d8 (Surr)	85		73 - 120		08/10/17 09:40	1
4-Bromofluorobenzene (Surr)	104		80 - 120		08/10/17 09:40	1
Dibromofluoromethane (Surr)	104		73 - 120		08/10/17 09:40	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-162-0/1-0**

**Date Collected: 08/02/17 07:35**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-28**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	20	U	20	7.6	ug/L			08/11/17 09:45	20
Vinyl chloride	20	U	20	3.4	ug/L			08/11/17 09:45	20
Bromomethane	20	U ^c	20	12	ug/L			08/11/17 09:45	20
Chloroethane	20	U	20	12	ug/L			08/11/17 09:45	20
1,1-Dichloroethene	20	U	20	6.4	ug/L			08/11/17 09:45	20
Acetone	100	U ^c	100	63	ug/L			08/11/17 09:45	20
Carbon disulfide	20	U	20	11	ug/L			08/11/17 09:45	20
Methylene Chloride	20	U	20	19	ug/L			08/11/17 09:45	20
trans-1,2-Dichloroethene	20	U	20	4.0	ug/L			08/11/17 09:45	20
Methyl tert-butyl ether	20	U	20	3.9	ug/L			08/11/17 09:45	20
1,1-Dichloroethane	20	U	20	6.8	ug/L			08/11/17 09:45	20
cis-1,2-Dichloroethene	20	U	20	6.1	ug/L			08/11/17 09:45	20
Bromochloromethane	20	U	20	7.2	ug/L			08/11/17 09:45	20
2-Butanone (MEK)	100	U	100	51	ug/L			08/11/17 09:45	20
Chloroform	20	U	20	5.3	ug/L			08/11/17 09:45	20
1,1,1-Trichloroethane	20	U	20	5.4	ug/L			08/11/17 09:45	20
Carbon tetrachloride	20	U	20	11	ug/L			08/11/17 09:45	20
Benzene	20	U	20	3.6	ug/L			08/11/17 09:45	20
1,2-Dichloroethane	20	U	20	4.8	ug/L			08/11/17 09:45	20
<b>Trichloroethene</b>	<b>51</b>		20	4.0	ug/L			08/11/17 09:45	20
1,2-Dichloropropane	20	U	20	6.9	ug/L			08/11/17 09:45	20
Bromodichloromethane	20	U	20	11	ug/L			08/11/17 09:45	20
cis-1,3-Dichloropropene	20	U	20	6.4	ug/L			08/11/17 09:45	20
4-Methyl-2-pentanone (MIBK)	100	U	100	44	ug/L			08/11/17 09:45	20
Toluene	20	U	20	3.1	ug/L			08/11/17 09:45	20
trans-1,3-Dichloropropene	20	U	20	4.4	ug/L			08/11/17 09:45	20
1,1,2-Trichloroethane	20	U	20	6.1	ug/L			08/11/17 09:45	20
<b>Tetrachloroethene</b>	<b>330</b>		20	4.9	ug/L			08/11/17 09:45	20
2-Hexanone	100	U	100	40	ug/L			08/11/17 09:45	20
Dibromochloromethane	20	U	20	8.7	ug/L			08/11/17 09:45	20
1,2-Dibromoethane (EDB)	20	U	20	10	ug/L			08/11/17 09:45	20
Chlorobenzene	20	U	20	2.9	ug/L			08/11/17 09:45	20
1,1,1,2-Tetrachloroethane	20	U	20	9.9	ug/L			08/11/17 09:45	20
Ethylbenzene	20	U	20	5.0	ug/L			08/11/17 09:45	20
Xylenes, Total	40	U	40	5.4	ug/L			08/11/17 09:45	20
Styrene	20	U	20	4.3	ug/L			08/11/17 09:45	20
Bromoform	20	U	20	15	ug/L			08/11/17 09:45	20
1,1,2,2-Tetrachloroethane	20	U	20	7.4	ug/L			08/11/17 09:45	20
Acrylonitrile	400	U	400	67	ug/L			08/11/17 09:45	20
1,4-Dioxane	4000	U	4000	310	ug/L			08/11/17 09:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		65 - 121		08/11/17 09:45	20
Toluene-d8 (Surr)	93		73 - 120		08/11/17 09:45	20
4-Bromofluorobenzene (Surr)	100		80 - 120		08/11/17 09:45	20
Dibromofluoromethane (Surr)	101		73 - 120		08/11/17 09:45	20



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-64D-0/1-0**

**Lab Sample ID: 180-69061-22**

**Date Collected: 08/01/17 15:12**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	3.8	ug/L			08/10/17 07:16	10
Vinyl chloride	10	U	10	1.7	ug/L			08/10/17 07:16	10
Bromomethane	10	U	10	5.9	ug/L			08/10/17 07:16	10
Chloroethane	10	U	10	5.8	ug/L			08/10/17 07:16	10
1,1-Dichloroethene	10	U	10	3.2	ug/L			08/10/17 07:16	10
Acetone	50	U ^c	50	31	ug/L			08/10/17 07:16	10
Carbon disulfide	10	U ^c	10	5.3	ug/L			08/10/17 07:16	10
Methylene Chloride	10	U	10	9.4	ug/L			08/10/17 07:16	10
trans-1,2-Dichloroethene	10	U	10	2.0	ug/L			08/10/17 07:16	10
Methyl tert-butyl ether	10	U	10	2.0	ug/L			08/10/17 07:16	10
1,1-Dichloroethane	10	U	10	3.4	ug/L			08/10/17 07:16	10
cis-1,2-Dichloroethene	10	U	10	3.0	ug/L			08/10/17 07:16	10
Bromochloromethane	10	U	10	3.6	ug/L			08/10/17 07:16	10
2-Butanone (MEK)	50	U	50	26	ug/L			08/10/17 07:16	10
Chloroform	10	U	10	2.7	ug/L			08/10/17 07:16	10
1,1,1-Trichloroethane	10	U	10	2.7	ug/L			08/10/17 07:16	10
Carbon tetrachloride	10	U	10	5.6	ug/L			08/10/17 07:16	10
Benzene	10	U	10	1.8	ug/L			08/10/17 07:16	10
1,2-Dichloroethane	10	U	10	2.4	ug/L			08/10/17 07:16	10
<b>Trichloroethene</b>	<b>3.4</b>	<b>J</b>	10	2.0	ug/L			08/10/17 07:16	10
1,2-Dichloropropane	10	U	10	3.5	ug/L			08/10/17 07:16	10
Bromodichloromethane	10	U	10	5.7	ug/L			08/10/17 07:16	10
cis-1,3-Dichloropropene	10	U	10	3.2	ug/L			08/10/17 07:16	10
4-Methyl-2-pentanone (MIBK)	50	U	50	22	ug/L			08/10/17 07:16	10
Toluene	10	U	10	1.6	ug/L			08/10/17 07:16	10
trans-1,3-Dichloropropene	10	U	10	2.2	ug/L			08/10/17 07:16	10
1,1,2-Trichloroethane	10	U	10	3.1	ug/L			08/10/17 07:16	10
<b>Tetrachloroethene</b>	<b>300</b>		10	2.4	ug/L			08/10/17 07:16	10
2-Hexanone	50	U	50	20	ug/L			08/10/17 07:16	10
Dibromochloromethane	10	U	10	4.4	ug/L			08/10/17 07:16	10
1,2-Dibromoethane (EDB)	10	U	10	5.1	ug/L			08/10/17 07:16	10
Chlorobenzene	10	U	10	1.5	ug/L			08/10/17 07:16	10
1,1,1,2-Tetrachloroethane	10	U	10	4.9	ug/L			08/10/17 07:16	10
Ethylbenzene	10	U	10	2.5	ug/L			08/10/17 07:16	10
Xylenes, Total	20	U	20	2.7	ug/L			08/10/17 07:16	10
Styrene	10	U	10	2.2	ug/L			08/10/17 07:16	10
Bromoform	10	U	10	7.6	ug/L			08/10/17 07:16	10
1,1,2,2-Tetrachloroethane	10	U	10	3.7	ug/L			08/10/17 07:16	10
Acrylonitrile	200	U	200	33	ug/L			08/10/17 07:16	10
1,4-Dioxane	2000	U	2000	160	ug/L			08/10/17 07:16	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		65 - 121		08/10/17 07:16	10
Toluene-d8 (Surr)	86		73 - 120		08/10/17 07:16	10
4-Bromofluorobenzene (Surr)	103		80 - 120		08/10/17 07:16	10
Dibromofluoromethane (Surr)	101		73 - 120		08/10/17 07:16	10



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-MW-161-0/1-0**

**Date Collected: 08/01/17 15:25**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-23**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	20	U	20	7.6	ug/L			08/11/17 09:21	20
Vinyl chloride	20	U	20	3.4	ug/L			08/11/17 09:21	20
Bromomethane	20	U ^c	20	12	ug/L			08/11/17 09:21	20
Chloroethane	20	U	20	12	ug/L			08/11/17 09:21	20
1,1-Dichloroethene	20	U	20	6.4	ug/L			08/11/17 09:21	20
Acetone	100	U ^c	100	63	ug/L			08/11/17 09:21	20
Carbon disulfide	20	U	20	11	ug/L			08/11/17 09:21	20
Methylene Chloride	20	U	20	19	ug/L			08/11/17 09:21	20
trans-1,2-Dichloroethene	20	U	20	4.0	ug/L			08/11/17 09:21	20
Methyl tert-butyl ether	20	U	20	3.9	ug/L			08/11/17 09:21	20
1,1-Dichloroethane	20	U	20	6.8	ug/L			08/11/17 09:21	20
cis-1,2-Dichloroethene	20	U	20	6.1	ug/L			08/11/17 09:21	20
Bromochloromethane	20	U	20	7.2	ug/L			08/11/17 09:21	20
2-Butanone (MEK)	100	U	100	51	ug/L			08/11/17 09:21	20
Chloroform	20	U	20	5.3	ug/L			08/11/17 09:21	20
1,1,1-Trichloroethane	20	U	20	5.4	ug/L			08/11/17 09:21	20
Carbon tetrachloride	20	U	20	11	ug/L			08/11/17 09:21	20
Benzene	20	U	20	3.6	ug/L			08/11/17 09:21	20
1,2-Dichloroethane	20	U	20	4.8	ug/L			08/11/17 09:21	20
Trichloroethene	20	U	20	4.0	ug/L			08/11/17 09:21	20
1,2-Dichloropropane	20	U	20	6.9	ug/L			08/11/17 09:21	20
Bromodichloromethane	20	U	20	11	ug/L			08/11/17 09:21	20
cis-1,3-Dichloropropene	20	U	20	6.4	ug/L			08/11/17 09:21	20
4-Methyl-2-pentanone (MIBK)	100	U	100	44	ug/L			08/11/17 09:21	20
Toluene	20	U	20	3.1	ug/L			08/11/17 09:21	20
trans-1,3-Dichloropropene	20	U	20	4.4	ug/L			08/11/17 09:21	20
1,1,2-Trichloroethane	20	U	20	6.1	ug/L			08/11/17 09:21	20
<b>Tetrachloroethene</b>	<b>170</b>		20	4.9	ug/L			08/11/17 09:21	20
2-Hexanone	100	U	100	40	ug/L			08/11/17 09:21	20
Dibromochloromethane	20	U	20	8.7	ug/L			08/11/17 09:21	20
1,2-Dibromoethane (EDB)	20	U	20	10	ug/L			08/11/17 09:21	20
Chlorobenzene	20	U	20	2.9	ug/L			08/11/17 09:21	20
1,1,1,2-Tetrachloroethane	20	U	20	9.9	ug/L			08/11/17 09:21	20
Ethylbenzene	20	U	20	5.0	ug/L			08/11/17 09:21	20
Xylenes, Total	40	U	40	5.4	ug/L			08/11/17 09:21	20
Styrene	20	U	20	4.3	ug/L			08/11/17 09:21	20
Bromoform	20	U	20	15	ug/L			08/11/17 09:21	20
1,1,2,2-Tetrachloroethane	20	U	20	7.4	ug/L			08/11/17 09:21	20
Acrylonitrile	400	U	400	67	ug/L			08/11/17 09:21	20
1,4-Dioxane	4000	U	4000	310	ug/L			08/11/17 09:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		65 - 121		08/11/17 09:21	20
Toluene-d8 (Surr)	91		73 - 120		08/11/17 09:21	20
4-Bromofluorobenzene (Surr)	100		80 - 120		08/11/17 09:21	20
Dibromofluoromethane (Surr)	101		73 - 120		08/11/17 09:21	20

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Client Sample ID: HD-QC1-0/1-1**

**Date Collected: 08/02/17 12:00**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-27**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	2.0	U	2.0	0.76	ug/L			08/11/17 08:57	2
Vinyl chloride	2.0	U	2.0	0.34	ug/L			08/11/17 08:57	2
Bromomethane	2.0	U ^c	2.0	1.2	ug/L			08/11/17 08:57	2
Chloroethane	2.0	U	2.0	1.2	ug/L			08/11/17 08:57	2
1,1-Dichloroethene	2.0	U	2.0	0.64	ug/L			08/11/17 08:57	2
Acetone	10	U ^c	10	6.3	ug/L			08/11/17 08:57	2
Carbon disulfide	2.0	U	2.0	1.1	ug/L			08/11/17 08:57	2
Methylene Chloride	2.0	U	2.0	1.9	ug/L			08/11/17 08:57	2
trans-1,2-Dichloroethene	2.0	U	2.0	0.40	ug/L			08/11/17 08:57	2
Methyl tert-butyl ether	2.0	U	2.0	0.39	ug/L			08/11/17 08:57	2
1,1-Dichloroethane	2.0	U	2.0	0.68	ug/L			08/11/17 08:57	2
cis-1,2-Dichloroethene	2.0	U	2.0	0.61	ug/L			08/11/17 08:57	2
Bromochloromethane	2.0	U	2.0	0.72	ug/L			08/11/17 08:57	2
2-Butanone (MEK)	10	U	10	5.1	ug/L			08/11/17 08:57	2
<b>Chloroform</b>	<b>0.54</b>	<b>J</b>	2.0	0.53	ug/L			08/11/17 08:57	2
1,1,1-Trichloroethane	2.0	U	2.0	0.54	ug/L			08/11/17 08:57	2
Carbon tetrachloride	2.0	U	2.0	1.1	ug/L			08/11/17 08:57	2
Benzene	2.0	U	2.0	0.36	ug/L			08/11/17 08:57	2
1,2-Dichloroethane	2.0	U	2.0	0.48	ug/L			08/11/17 08:57	2
<b>Trichloroethene</b>	<b>0.57</b>	<b>J</b>	2.0	0.40	ug/L			08/11/17 08:57	2
1,2-Dichloropropane	2.0	U	2.0	0.69	ug/L			08/11/17 08:57	2
Bromodichloromethane	2.0	U	2.0	1.1	ug/L			08/11/17 08:57	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.64	ug/L			08/11/17 08:57	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.4	ug/L			08/11/17 08:57	2
Toluene	2.0	U	2.0	0.31	ug/L			08/11/17 08:57	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.44	ug/L			08/11/17 08:57	2
1,1,2-Trichloroethane	2.0	U	2.0	0.61	ug/L			08/11/17 08:57	2
<b>Tetrachloroethene</b>	<b>33</b>		2.0	0.49	ug/L			08/11/17 08:57	2
2-Hexanone	10	U	10	4.0	ug/L			08/11/17 08:57	2
Dibromochloromethane	2.0	U	2.0	0.87	ug/L			08/11/17 08:57	2
1,2-Dibromoethane (EDB)	2.0	U	2.0	1.0	ug/L			08/11/17 08:57	2
Chlorobenzene	2.0	U	2.0	0.29	ug/L			08/11/17 08:57	2
1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.99	ug/L			08/11/17 08:57	2
Ethylbenzene	2.0	U	2.0	0.50	ug/L			08/11/17 08:57	2
Xylenes, Total	4.0	U	4.0	0.54	ug/L			08/11/17 08:57	2
Styrene	2.0	U	2.0	0.43	ug/L			08/11/17 08:57	2
Bromoform	2.0	U	2.0	1.5	ug/L			08/11/17 08:57	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.74	ug/L			08/11/17 08:57	2
Acrylonitrile	40	U	40	6.7	ug/L			08/11/17 08:57	2
1,4-Dioxane	400	U	400	31	ug/L			08/11/17 08:57	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		65 - 121		08/11/17 08:57	2
Toluene-d8 (Surr)	89		73 - 120		08/11/17 08:57	2
4-Bromofluorobenzene (Surr)	98		80 - 120		08/11/17 08:57	2
Dibromofluoromethane (Surr)	97		73 - 120		08/11/17 08:57	2

## Default Detection Limits

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.49	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.27	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.37	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.31	ug/L	8260C
1,1-Dichloroethane	1.0	0.34	ug/L	8260C
1,1-Dichloroethene	1.0	0.32	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.51	ug/L	8260C
1,2-Dichloroethane	1.0	0.24	ug/L	8260C
1,2-Dichloropropane	1.0	0.35	ug/L	8260C
1,4-Dioxane	200	16	ug/L	8260C
2-Butanone (MEK)	5.0	2.6	ug/L	8260C
2-Hexanone	5.0	2.0	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	2.2	ug/L	8260C
Acetone	5.0	3.1	ug/L	8260C
Acrylonitrile	20	3.3	ug/L	8260C
Benzene	1.0	0.18	ug/L	8260C
Bromochloromethane	1.0	0.36	ug/L	8260C
Bromodichloromethane	1.0	0.57	ug/L	8260C
Bromoform	1.0	0.76	ug/L	8260C
Bromomethane	1.0	0.59	ug/L	8260C
Carbon disulfide	1.0	0.53	ug/L	8260C
Carbon tetrachloride	1.0	0.56	ug/L	8260C
Chlorobenzene	1.0	0.15	ug/L	8260C
Chloroethane	1.0	0.58	ug/L	8260C
Chloroform	1.0	0.27	ug/L	8260C
Chloromethane	1.0	0.38	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.30	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.32	ug/L	8260C
Dibromochloromethane	1.0	0.44	ug/L	8260C
Ethylbenzene	1.0	0.25	ug/L	8260C
Methyl tert-butyl ether	1.0	0.20	ug/L	8260C
Methylene Chloride	1.0	0.94	ug/L	8260C
Styrene	1.0	0.22	ug/L	8260C
Tetrachloroethene	1.0	0.24	ug/L	8260C
Toluene	1.0	0.16	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.20	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.22	ug/L	8260C
Trichloroethene	1.0	0.20	ug/L	8260C
Vinyl chloride	1.0	0.17	ug/L	8260C
Xylenes, Total	2.0	0.27	ug/L	8260C

# Surrogate Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Matrix: Water**

**Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (65-121)	TOL (73-120)	BFB (80-120)	DBFM (73-120)
180-69061-1	HD-MW-109D-0/1-0	95	89	106	93
180-69061-2	HD-MW-175-0/1-0	99	87	109	97
180-69061-3	HD-MW-164-0/1-0	99	89	104	97
180-69061-4	HD-MW-169-0/1-0	100	86	103	97
180-69061-5	HD-MW-170-0/1-0	99	88	103	98
180-69061-6	HD-MW-174-0/1-0	98	86	100	101
180-69061-7	HD-MW-167-0/1-0	101	85	100	99
180-69061-9	HD-MW-166-0/1-0	103	86	103	101
180-69061-10	HD-MW-168-0/1-0	99	84	100	98
180-69061-11	HD-MW-141A-0/1-0	103	87	105	104
180-69061-12	HD-MW-171-0/1-0	101	87	103	100
180-69061-13	HD-QC1-0/1-4	99	84	103	99
180-69061-13 MS	HD-QC1-0/1-4	98	101	95	93
180-69061-14	HD-QC1-0/1-3	98	83	103	97
180-69061-15	HD-QC1-0/1-2	100	86	104	97
180-69061-16	HD-MW-172-0/1-0	100	86	104	99
180-69061-17	HD-MW-173-0/1-0	99	86	99	102
180-69061-18	HD-MW-108D-0/1-0	100	85	103	101
180-69061-19	HD-MW-108S-0/1-0	104	85	103	100
180-69061-20	HD-MW-64S-0/1-0	102	85	105	104
180-69061-22 - DL	HD-MW-64D-0/1-0	100	86	103	101
180-69061-22	HD-MW-64D-0/1-0	107	91	99	103
180-69061-23	HD-MW-161-0/1-0	104	82	102	104
180-69061-23 - DL	HD-MW-161-0/1-0	104	91	100	101
180-69061-24	HD-MW-163-0/1-0	102	88	99	99
180-69061-25	HD-MW-110-0/1-0	99	85	102	98
180-69061-25 MS	HD-MW-110-0/1-0	93	85	108	95
180-69061-25 MSD	HD-MW-110-0/1-0	93	89	110	93
180-69061-26	HD-MW-109S-0/1-0	101	91	101	96
180-69061-27	HD-QC1-0/1-1	105	85	104	104
180-69061-27 - DL	HD-QC1-0/1-1	104	89	98	97
180-69061-28	HD-MW-162-0/1-0	103	93	100	101
LCS 180-219487/3	Lab Control Sample	91	101	103	87
LCS 180-219617/3	Lab Control Sample	97	103	101	91
LCS 180-219759/4	Lab Control Sample	99	107	105	99
LCS 180-220320/4	Lab Control Sample	92	100	99	92
MB 180-219487/5	Method Blank	99	85	103	99
MB 180-219617/5	Method Blank	98	86	103	100
MB 180-219759/7	Method Blank	101	84	103	98
MB 180-220320/6	Method Blank	103	91	98	98

**Surrogate Legend**

- 12DCE = 1,2-Dichloroethane-d4 (Surr)
- TOL = Toluene-d8 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)
- DBFM = Dibromofluoromethane (Surr)

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: MB 180-219487/5**

**Matrix: Water**

**Analysis Batch: 219487**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/09/17 03:30	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/09/17 03:30	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/09/17 03:30	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/09/17 03:30	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/09/17 03:30	1
Acetone	5.0	U	5.0	3.1	ug/L			08/09/17 03:30	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			08/09/17 03:30	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/09/17 03:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 03:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/09/17 03:30	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/09/17 03:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/09/17 03:30	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/09/17 03:30	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/09/17 03:30	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/09/17 03:30	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/09/17 03:30	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/09/17 03:30	1
Benzene	1.0	U	1.0	0.18	ug/L			08/09/17 03:30	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/09/17 03:30	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/09/17 03:30	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/09/17 03:30	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/09/17 03:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/09/17 03:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/09/17 03:30	1
Toluene	1.0	U	1.0	0.16	ug/L			08/09/17 03:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/09/17 03:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/09/17 03:30	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/09/17 03:30	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/09/17 03:30	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/09/17 03:30	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/09/17 03:30	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/09/17 03:30	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/09/17 03:30	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/09/17 03:30	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/09/17 03:30	1
Styrene	1.0	U	1.0	0.22	ug/L			08/09/17 03:30	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/09/17 03:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/09/17 03:30	1
Acrylonitrile	20	U	20	3.3	ug/L			08/09/17 03:30	1
1,4-Dioxane	200	U	200	16	ug/L			08/09/17 03:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		65 - 121		08/09/17 03:30	1
Toluene-d8 (Surr)	85		73 - 120		08/09/17 03:30	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/09/17 03:30	1
Dibromofluoromethane (Surr)	99		73 - 120		08/09/17 03:30	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: LCS 180-219487/3**

**Matrix: Water**

**Analysis Batch: 219487**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.90		ug/L		99	49 - 135
Vinyl chloride	10.0	10.6		ug/L		106	52 - 136
Bromomethane	10.0	11.6		ug/L		116	37 - 150
Chloroethane	10.0	10.2		ug/L		102	44 - 139
1,1-Dichloroethene	10.0	9.99		ug/L		100	64 - 131
Acetone	20.0	24.0		ug/L		120	24 - 150
Carbon disulfide	10.0	7.53		ug/L		75	20 - 150
Methylene Chloride	10.0	9.27		ug/L		93	66 - 123
trans-1,2-Dichloroethene	10.0	9.92		ug/L		99	70 - 123
Methyl tert-butyl ether	10.0	9.22		ug/L		92	66 - 130
1,1-Dichloroethane	10.0	9.81		ug/L		98	66 - 122
cis-1,2-Dichloroethene	10.0	9.35		ug/L		94	73 - 120
Bromochloromethane	10.0	9.13		ug/L		91	73 - 122
2-Butanone (MEK)	20.0	20.6		ug/L		103	37 - 150
Chloroform	10.0	9.59		ug/L		96	72 - 123
1,1,1-Trichloroethane	10.0	9.63		ug/L		96	66 - 129
Carbon tetrachloride	10.0	9.65		ug/L		97	58 - 145
Benzene	10.0	9.56		ug/L		96	75 - 123
1,2-Dichloroethane	10.0	9.46		ug/L		95	63 - 130
Trichloroethene	10.0	9.21		ug/L		92	74 - 121
1,2-Dichloropropane	10.0	9.42		ug/L		94	67 - 119
Bromodichloromethane	10.0	8.74		ug/L		87	62 - 127
cis-1,3-Dichloropropene	10.0	9.26		ug/L		93	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	19.4		ug/L		97	41 - 135
Toluene	10.0	10.6		ug/L		106	76 - 129
trans-1,3-Dichloropropene	10.0	9.45		ug/L		95	61 - 136
1,1,2-Trichloroethane	10.0	9.65		ug/L		96	74 - 126
Tetrachloroethene	10.0	10.4		ug/L		104	76 - 128
2-Hexanone	20.0	19.8		ug/L		99	37 - 150
Dibromochloromethane	10.0	9.65		ug/L		97	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.41		ug/L		94	76 - 128
Chlorobenzene	10.0	10.1		ug/L		101	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.90		ug/L		99	70 - 130
Ethylbenzene	10.0	9.82		ug/L		98	77 - 124
Xylenes, Total	20.0	20.1		ug/L		101	76 - 124
Styrene	10.0	10.1		ug/L		101	80 - 125
Bromoform	10.0	8.69		ug/L		87	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.50		ug/L		95	72 - 128
Acrylonitrile	100	94.1		ug/L		94	60 - 130
1,4-Dioxane	200	160	J	ug/L		80	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		65 - 121
Toluene-d8 (Surr)	101		73 - 120
4-Bromofluorobenzene (Surr)	103		80 - 120
Dibromofluoromethane (Surr)	87		73 - 120

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: 180-69061-25 MS**

**Matrix: Water**

**Analysis Batch: 219487**

**Client Sample ID: HD-MW-110-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	5.0	U	50.0	51.7		ug/L		103	49 - 135
Vinyl chloride	5.0	U	50.0	54.5		ug/L		109	52 - 136
Bromomethane	5.0	U	50.0	65.7		ug/L		131	37 - 150
Chloroethane	5.0	U	50.0	57.3		ug/L		115	44 - 139
1,1-Dichloroethene	5.0	U	50.0	51.3		ug/L		103	64 - 131
Acetone	25	U	100	68.7		ug/L		69	24 - 150
Carbon disulfide	5.0	U ^c	50.0	44.2		ug/L		88	20 - 150
Methylene Chloride	5.0	U	50.0	45.7		ug/L		91	66 - 123
trans-1,2-Dichloroethene	5.0	U	50.0	49.2		ug/L		98	70 - 123
Methyl tert-butyl ether	5.0	U	50.0	45.7		ug/L		91	66 - 130
1,1-Dichloroethane	5.0	U	50.0	48.4		ug/L		97	66 - 122
cis-1,2-Dichloroethene	5.0	U	50.0	46.4		ug/L		93	73 - 120
Bromochloromethane	5.0	U	50.0	45.1		ug/L		90	73 - 122
2-Butanone (MEK)	25	U	100	71.3		ug/L		71	37 - 150
Chloroform	5.0	U	50.0	47.6		ug/L		95	72 - 123
1,1,1-Trichloroethane	5.0	U	50.0	48.6		ug/L		97	66 - 129
Carbon tetrachloride	5.0	U	50.0	48.9		ug/L		98	58 - 145
Benzene	5.0	U	50.0	47.4		ug/L		95	75 - 123
1,2-Dichloroethane	5.0	U	50.0	48.1		ug/L		96	63 - 130
Trichloroethene	5.0	U	50.0	48.3		ug/L		97	74 - 121
1,2-Dichloropropane	5.0	U	50.0	45.5		ug/L		91	67 - 119
Bromodichloromethane	5.0	U	50.0	43.7		ug/L		87	62 - 127
cis-1,3-Dichloropropene	5.0	U	50.0	44.4		ug/L		89	61 - 127
4-Methyl-2-pentanone (MIBK)	25	U	100	62.8		ug/L		63	41 - 135
Toluene	5.0	U F1	50.0	40.0		ug/L		80	76 - 129
trans-1,3-Dichloropropene	5.0	U	50.0	36.9		ug/L		74	61 - 136
1,1,2-Trichloroethane	5.0	U	50.0	37.4		ug/L		75	74 - 126
Tetrachloroethene	44	F1	50.0	82.6		ug/L		76	76 - 128
2-Hexanone	25	U	100	60.4		ug/L		60	37 - 150
Dibromochloromethane	5.0	U	50.0	36.6		ug/L		73	63 - 131
1,2-Dibromoethane (EDB)	5.0	U F1	50.0	37.1	F1	ug/L		74	76 - 128
Chlorobenzene	5.0	U F1	50.0	38.2	F1	ug/L		76	79 - 124
1,1,1,2-Tetrachloroethane	5.0	U	50.0	38.9		ug/L		78	70 - 130
Ethylbenzene	5.0	U F1	50.0	38.4		ug/L		77	77 - 124
Xylenes, Total	10	U F1	100	77.3		ug/L		77	76 - 124
Styrene	5.0	U F1	50.0	38.1	F1	ug/L		76	80 - 125
Bromoform	5.0	U	50.0	33.6		ug/L		67	54 - 136
1,1,2,2-Tetrachloroethane	5.0	U	50.0	38.4		ug/L		77	72 - 128
Acrylonitrile	100	U	500	445		ug/L		89	60 - 130
1,4-Dioxane	1000	U	1000	666	J	ug/L		67	26 - 150
		<b>MS MS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	93		65 - 121						
Toluene-d8 (Surr)	85		73 - 120						
4-Bromofluorobenzene (Surr)	108		80 - 120						
Dibromofluoromethane (Surr)	95		73 - 120						



# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: 180-69061-25 MSD**

**Matrix: Water**

**Analysis Batch: 219487**

**Client Sample ID: HD-MW-110-0/1-0**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	5.0	U	50.0	44.5		ug/L		89	49 - 135	15	20
Vinyl chloride	5.0	U	50.0	47.7		ug/L		95	52 - 136	13	19
Bromomethane	5.0	U	50.0	58.4		ug/L		117	37 - 150	12	23
Chloroethane	5.0	U	50.0	50.5		ug/L		101	44 - 139	13	19
1,1-Dichloroethene	5.0	U	50.0	45.3		ug/L		91	64 - 131	13	20
Acetone	25	U	100	74.0		ug/L		74	24 - 150	7	35
Carbon disulfide	5.0	U ^c	50.0	39.2		ug/L		78	20 - 150	12	21
Methylene Chloride	5.0	U	50.0	42.9		ug/L		86	66 - 123	6	22
trans-1,2-Dichloroethene	5.0	U	50.0	44.6		ug/L		89	70 - 123	10	19
Methyl tert-butyl ether	5.0	U	50.0	44.1		ug/L		88	66 - 130	3	23
1,1-Dichloroethane	5.0	U	50.0	43.7		ug/L		87	66 - 122	10	20
cis-1,2-Dichloroethene	5.0	U	50.0	41.2		ug/L		82	73 - 120	12	23
Bromochloromethane	5.0	U	50.0	40.6		ug/L		81	73 - 122	11	24
2-Butanone (MEK)	25	U	100	73.6		ug/L		74	37 - 150	3	35
Chloroform	5.0	U	50.0	43.2		ug/L		86	72 - 123	10	20
1,1,1-Trichloroethane	5.0	U	50.0	44.6		ug/L		89	66 - 129	9	21
Carbon tetrachloride	5.0	U	50.0	42.4		ug/L		85	58 - 145	14	22
Benzene	5.0	U	50.0	42.8		ug/L		86	75 - 123	10	20
1,2-Dichloroethane	5.0	U	50.0	43.6		ug/L		87	63 - 130	10	21
Trichloroethene	5.0	U	50.0	43.0		ug/L		86	74 - 121	12	20
1,2-Dichloropropane	5.0	U	50.0	43.8		ug/L		88	67 - 119	4	21
Bromodichloromethane	5.0	U	50.0	40.8		ug/L		82	62 - 127	7	19
cis-1,3-Dichloropropene	5.0	U	50.0	40.0		ug/L		80	61 - 127	10	22
4-Methyl-2-pentanone (MIBK)	25	U	100	63.3		ug/L		63	41 - 135	1	35
Toluene	5.0	U F1	50.0	37.6	F1	ug/L		75	76 - 129	6	18
trans-1,3-Dichloropropene	5.0	U	50.0	36.0		ug/L		72	61 - 136	2	17
1,1,2-Trichloroethane	5.0	U	50.0	37.1		ug/L		74	74 - 126	1	20
Tetrachloroethene	44	F1	50.0	78.8	F1	ug/L		69	76 - 128	5	20
2-Hexanone	25	U	100	60.9		ug/L		61	37 - 150	1	35
Dibromochloromethane	5.0	U	50.0	34.4		ug/L		69	63 - 131	6	20
1,2-Dibromoethane (EDB)	5.0	U F1	50.0	35.3	F1	ug/L		71	76 - 128	5	21
Chlorobenzene	5.0	U F1	50.0	36.0	F1	ug/L		72	79 - 124	6	16
1,1,1,2-Tetrachloroethane	5.0	U	50.0	36.3		ug/L		73	70 - 130	7	17
Ethylbenzene	5.0	U F1	50.0	35.4	F1	ug/L		71	77 - 124	8	16
Xylenes, Total	10	U F1	100	71.6	F1	ug/L		72	76 - 124	8	17
Styrene	5.0	U F1	50.0	35.0	F1	ug/L		70	80 - 125	8	18
Bromoform	5.0	U	50.0	32.2		ug/L		64	54 - 136	4	23
1,1,2,2-Tetrachloroethane	5.0	U	50.0	36.3		ug/L		73	72 - 128	6	24
Acrylonitrile	100	U	500	443		ug/L		89	60 - 130	1	32
1,4-Dioxane	1000	U	1000	720	J	ug/L		72	26 - 150	8	35
	<b>MSD</b>	<b>MSD</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,2-Dichloroethane-d4 (Surr)	93		65 - 121								
Toluene-d8 (Surr)	89		73 - 120								
4-Bromofluorobenzene (Surr)	110		80 - 120								
Dibromofluoromethane (Surr)	93		73 - 120								



# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: MB 180-219617/5**  
**Matrix: Water**  
**Analysis Batch: 219617**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/10/17 01:53	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/10/17 01:53	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/10/17 01:53	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/10/17 01:53	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/10/17 01:53	1
Acetone	5.0	U	5.0	3.1	ug/L			08/10/17 01:53	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			08/10/17 01:53	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/10/17 01:53	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 01:53	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/10/17 01:53	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/10/17 01:53	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/10/17 01:53	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/10/17 01:53	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/10/17 01:53	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/10/17 01:53	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/10/17 01:53	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/10/17 01:53	1
Benzene	1.0	U	1.0	0.18	ug/L			08/10/17 01:53	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/10/17 01:53	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/10/17 01:53	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/10/17 01:53	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/10/17 01:53	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/10/17 01:53	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/10/17 01:53	1
Toluene	1.0	U	1.0	0.16	ug/L			08/10/17 01:53	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/10/17 01:53	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/10/17 01:53	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/10/17 01:53	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/10/17 01:53	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/10/17 01:53	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/10/17 01:53	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/10/17 01:53	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/10/17 01:53	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/10/17 01:53	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/10/17 01:53	1
Styrene	1.0	U	1.0	0.22	ug/L			08/10/17 01:53	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/10/17 01:53	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/10/17 01:53	1
Acrylonitrile	20	U	20	3.3	ug/L			08/10/17 01:53	1
1,4-Dioxane	200	U	200	16	ug/L			08/10/17 01:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		65 - 121		08/10/17 01:53	1
Toluene-d8 (Surr)	86		73 - 120		08/10/17 01:53	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/10/17 01:53	1
Dibromofluoromethane (Surr)	100		73 - 120		08/10/17 01:53	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: LCS 180-219617/3**

**Matrix: Water**

**Analysis Batch: 219617**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.77		ug/L		98	49 - 135
Vinyl chloride	10.0	10.2		ug/L		102	52 - 136
Bromomethane	10.0	10.4		ug/L		104	37 - 150
Chloroethane	10.0	10.4		ug/L		104	44 - 139
1,1-Dichloroethene	10.0	9.93		ug/L		99	64 - 131
Acetone	20.0	19.4		ug/L		97	24 - 150
Carbon disulfide	10.0	7.35		ug/L		74	20 - 150
Methylene Chloride	10.0	9.38		ug/L		94	66 - 123
trans-1,2-Dichloroethene	10.0	9.63		ug/L		96	70 - 123
Methyl tert-butyl ether	10.0	9.57		ug/L		96	66 - 130
1,1-Dichloroethane	10.0	9.55		ug/L		96	66 - 122
cis-1,2-Dichloroethene	10.0	9.52		ug/L		95	73 - 120
Bromochloromethane	10.0	9.22		ug/L		92	73 - 122
2-Butanone (MEK)	20.0	17.6		ug/L		88	37 - 150
Chloroform	10.0	9.44		ug/L		94	72 - 123
1,1,1-Trichloroethane	10.0	9.69		ug/L		97	66 - 129
Carbon tetrachloride	10.0	9.49		ug/L		95	58 - 145
Benzene	10.0	9.63		ug/L		96	75 - 123
1,2-Dichloroethane	10.0	9.62		ug/L		96	63 - 130
Trichloroethene	10.0	9.16		ug/L		92	74 - 121
1,2-Dichloropropane	10.0	9.15		ug/L		92	67 - 119
Bromodichloromethane	10.0	8.63		ug/L		86	62 - 127
cis-1,3-Dichloropropene	10.0	9.21		ug/L		92	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	16.2		ug/L		81	41 - 135
Toluene	10.0	10.2		ug/L		102	76 - 129
trans-1,3-Dichloropropene	10.0	9.22		ug/L		92	61 - 136
1,1,2-Trichloroethane	10.0	9.59		ug/L		96	74 - 126
Tetrachloroethene	10.0	9.84		ug/L		98	76 - 128
2-Hexanone	20.0	16.2		ug/L		81	37 - 150
Dibromochloromethane	10.0	9.00		ug/L		90	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.12		ug/L		91	76 - 128
Chlorobenzene	10.0	9.81		ug/L		98	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.83		ug/L		98	70 - 130
Ethylbenzene	10.0	9.91		ug/L		99	77 - 124
Xylenes, Total	20.0	19.1		ug/L		96	76 - 124
Styrene	10.0	9.67		ug/L		97	80 - 125
Bromoform	10.0	8.62		ug/L		86	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.34		ug/L		93	72 - 128
Acrylonitrile	100	92.9		ug/L		93	60 - 130
1,4-Dioxane	200	170	J	ug/L		85	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		65 - 121
Toluene-d8 (Surr)	103		73 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	91		73 - 120

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: 180-69061-13 MS**

**Matrix: Water**

**Analysis Batch: 219617**

**Client Sample ID: HD-QC1-0/1-4**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	1.0	U	10.0	9.24		ug/L		92	49 - 135
Vinyl chloride	1.0	U	10.0	9.88		ug/L		99	52 - 136
Bromomethane	1.0	U	10.0	11.6		ug/L		116	37 - 150
Chloroethane	1.0	U	10.0	10.5		ug/L		105	44 - 139
1,1-Dichloroethene	1.0	U	10.0	9.36		ug/L		94	64 - 131
Acetone	4.9	J ^c	20.0	17.9		ug/L		65	24 - 150
Carbon disulfide	1.0	U ^c	10.0	7.31		ug/L		73	20 - 150
Methylene Chloride	1.0	U	10.0	9.63		ug/L		96	66 - 123
trans-1,2-Dichloroethene	1.0	U	10.0	9.62		ug/L		96	70 - 123
Methyl tert-butyl ether	1.0	U	10.0	9.88		ug/L		99	66 - 130
1,1-Dichloroethane	1.0	U	10.0	9.73		ug/L		97	66 - 122
cis-1,2-Dichloroethene	1.0	U	10.0	9.50		ug/L		95	73 - 120
Bromochloromethane	1.0	U	10.0	9.68		ug/L		97	73 - 122
2-Butanone (MEK)	5.0	U	20.0	17.7		ug/L		89	37 - 150
Chloroform	1.0	U	10.0	9.75		ug/L		98	72 - 123
1,1,1-Trichloroethane	1.0	U	10.0	9.44		ug/L		94	66 - 129
Carbon tetrachloride	1.0	U	10.0	9.28		ug/L		93	58 - 145
Benzene	1.0	U	10.0	9.61		ug/L		96	75 - 123
1,2-Dichloroethane	1.0	U	10.0	9.82		ug/L		98	63 - 130
Trichloroethene	1.0	U	10.0	9.00		ug/L		90	74 - 121
1,2-Dichloropropane	1.0	U	10.0	9.40		ug/L		94	67 - 119
Bromodichloromethane	1.0	U	10.0	8.93		ug/L		89	62 - 127
cis-1,3-Dichloropropene	1.0	U	10.0	9.15		ug/L		92	61 - 127
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	16.7		ug/L		83	41 - 135
Toluene	0.17	J	10.0	10.1		ug/L		99	76 - 129
trans-1,3-Dichloropropene	1.0	U	10.0	9.36		ug/L		94	61 - 136
1,1,2-Trichloroethane	1.0	U	10.0	9.69		ug/L		97	74 - 126
Tetrachloroethene	1.0	U	10.0	9.25		ug/L		92	76 - 128
2-Hexanone	5.0	U	20.0	15.2		ug/L		76	37 - 150
Dibromochloromethane	1.0	U	10.0	9.06		ug/L		91	63 - 131
1,2-Dibromoethane (EDB)	1.0	U	10.0	9.56		ug/L		96	76 - 128
Chlorobenzene	1.0	U	10.0	9.60		ug/L		96	79 - 124
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.82		ug/L		98	70 - 130
Ethylbenzene	1.0	U	10.0	9.50		ug/L		95	77 - 124
Xylenes, Total	2.0	U	20.0	18.9		ug/L		94	76 - 124
Styrene	1.0	U	10.0	9.53		ug/L		95	80 - 125
Bromoform	1.0	U	10.0	8.48		ug/L		85	54 - 136
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.51		ug/L		95	72 - 128
Acrylonitrile	20	U	100	95.5		ug/L		96	60 - 130
1,4-Dioxane	200	U	200	142	J	ug/L		71	26 - 150
		<b>MS</b>	<b>MS</b>						
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	98		65 - 121						
Toluene-d8 (Surr)	101		73 - 120						
4-Bromofluorobenzene (Surr)	95		80 - 120						
Dibromofluoromethane (Surr)	93		73 - 120						

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: MB 180-219759/7**  
**Matrix: Water**  
**Analysis Batch: 219759**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloromethane	1.0	U	1.0	0.38	ug/L			08/11/17 04:11	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/11/17 04:11	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/11/17 04:11	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/11/17 04:11	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/11/17 04:11	1
Acetone	5.0	U	5.0	3.1	ug/L			08/11/17 04:11	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			08/11/17 04:11	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/11/17 04:11	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/11/17 04:11	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/11/17 04:11	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/11/17 04:11	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/11/17 04:11	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/11/17 04:11	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/11/17 04:11	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/11/17 04:11	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/11/17 04:11	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/11/17 04:11	1
Benzene	1.0	U	1.0	0.18	ug/L			08/11/17 04:11	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/11/17 04:11	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/11/17 04:11	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/11/17 04:11	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/11/17 04:11	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/11/17 04:11	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/11/17 04:11	1
Toluene	1.0	U	1.0	0.16	ug/L			08/11/17 04:11	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/11/17 04:11	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/11/17 04:11	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/11/17 04:11	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/11/17 04:11	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/11/17 04:11	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/11/17 04:11	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/11/17 04:11	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/11/17 04:11	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/11/17 04:11	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/11/17 04:11	1
Styrene	1.0	U	1.0	0.22	ug/L			08/11/17 04:11	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/11/17 04:11	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/11/17 04:11	1
Acrylonitrile	20	U	20	3.3	ug/L			08/11/17 04:11	1
1,4-Dioxane	200	U	200	16	ug/L			08/11/17 04:11	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		65 - 121		08/11/17 04:11	1
Toluene-d8 (Surr)	84		73 - 120		08/11/17 04:11	1
4-Bromofluorobenzene (Surr)	103		80 - 120		08/11/17 04:11	1
Dibromofluoromethane (Surr)	98		73 - 120		08/11/17 04:11	1

TestAmerica Pittsburgh

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: LCS 180-219759/4**

**Matrix: Water**

**Analysis Batch: 219759**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.24		ug/L		92	49 - 135
Vinyl chloride	10.0	9.95		ug/L		100	52 - 136
Bromomethane	10.0	10.7		ug/L		107	37 - 150
Chloroethane	10.0	9.68		ug/L		97	44 - 139
1,1-Dichloroethene	10.0	9.06		ug/L		91	64 - 131
Acetone	20.0	18.8		ug/L		94	24 - 150
Carbon disulfide	10.0	7.03		ug/L		70	20 - 150
Methylene Chloride	10.0	9.41		ug/L		94	66 - 123
trans-1,2-Dichloroethene	10.0	9.14		ug/L		91	70 - 123
Methyl tert-butyl ether	10.0	9.65		ug/L		97	66 - 130
1,1-Dichloroethane	10.0	9.08		ug/L		91	66 - 122
cis-1,2-Dichloroethene	10.0	8.95		ug/L		90	73 - 120
Bromochloromethane	10.0	9.16		ug/L		92	73 - 122
2-Butanone (MEK)	20.0	18.2		ug/L		91	37 - 150
Chloroform	10.0	9.12		ug/L		91	72 - 123
1,1,1-Trichloroethane	10.0	9.21		ug/L		92	66 - 129
Carbon tetrachloride	10.0	8.77		ug/L		88	58 - 145
Benzene	10.0	9.03		ug/L		90	75 - 123
1,2-Dichloroethane	10.0	9.30		ug/L		93	63 - 130
Trichloroethene	10.0	8.60		ug/L		86	74 - 121
1,2-Dichloropropane	10.0	8.87		ug/L		89	67 - 119
Bromodichloromethane	10.0	8.53		ug/L		85	62 - 127
cis-1,3-Dichloropropene	10.0	8.81		ug/L		88	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	16.8		ug/L		84	41 - 135
Toluene	10.0	9.61		ug/L		96	76 - 129
trans-1,3-Dichloropropene	10.0	9.03		ug/L		90	61 - 136
1,1,2-Trichloroethane	10.0	9.87		ug/L		99	74 - 126
Tetrachloroethene	10.0	9.13		ug/L		91	76 - 128
2-Hexanone	20.0	16.7		ug/L		83	37 - 150
Dibromochloromethane	10.0	8.71		ug/L		87	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.28		ug/L		93	76 - 128
Chlorobenzene	10.0	9.27		ug/L		93	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.19		ug/L		92	70 - 130
Ethylbenzene	10.0	8.89		ug/L		89	77 - 124
Xylenes, Total	20.0	18.2		ug/L		91	76 - 124
Styrene	10.0	9.11		ug/L		91	80 - 125
Bromoform	10.0	8.52		ug/L		85	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.67		ug/L		97	72 - 128
Acrylonitrile	100	97.6		ug/L		98	60 - 130
1,4-Dioxane	200	188	J	ug/L		94	26 - 150

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		65 - 121
Toluene-d8 (Surr)	107		73 - 120
4-Bromofluorobenzene (Surr)	105		80 - 120
Dibromofluoromethane (Surr)	99		73 - 120

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: MB 180-220320/6**  
**Matrix: Water**  
**Analysis Batch: 220320**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.38	ug/L			08/17/17 02:11	1
Vinyl chloride	1.0	U	1.0	0.17	ug/L			08/17/17 02:11	1
Bromomethane	1.0	U	1.0	0.59	ug/L			08/17/17 02:11	1
Chloroethane	1.0	U	1.0	0.58	ug/L			08/17/17 02:11	1
1,1-Dichloroethene	1.0	U	1.0	0.32	ug/L			08/17/17 02:11	1
Acetone	5.0	U	5.0	3.1	ug/L			08/17/17 02:11	1
Carbon disulfide	1.0	U	1.0	0.53	ug/L			08/17/17 02:11	1
Methylene Chloride	1.0	U	1.0	0.94	ug/L			08/17/17 02:11	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.20	ug/L			08/17/17 02:11	1
Methyl tert-butyl ether	1.0	U	1.0	0.20	ug/L			08/17/17 02:11	1
1,1-Dichloroethane	1.0	U	1.0	0.34	ug/L			08/17/17 02:11	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.30	ug/L			08/17/17 02:11	1
Bromochloromethane	1.0	U	1.0	0.36	ug/L			08/17/17 02:11	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			08/17/17 02:11	1
Chloroform	1.0	U	1.0	0.27	ug/L			08/17/17 02:11	1
1,1,1-Trichloroethane	1.0	U	1.0	0.27	ug/L			08/17/17 02:11	1
Carbon tetrachloride	1.0	U	1.0	0.56	ug/L			08/17/17 02:11	1
Benzene	1.0	U	1.0	0.18	ug/L			08/17/17 02:11	1
1,2-Dichloroethane	1.0	U	1.0	0.24	ug/L			08/17/17 02:11	1
Trichloroethene	1.0	U	1.0	0.20	ug/L			08/17/17 02:11	1
1,2-Dichloropropane	1.0	U	1.0	0.35	ug/L			08/17/17 02:11	1
Bromodichloromethane	1.0	U	1.0	0.57	ug/L			08/17/17 02:11	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.32	ug/L			08/17/17 02:11	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2	ug/L			08/17/17 02:11	1
Toluene	1.0	U	1.0	0.16	ug/L			08/17/17 02:11	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.22	ug/L			08/17/17 02:11	1
1,1,2-Trichloroethane	1.0	U	1.0	0.31	ug/L			08/17/17 02:11	1
Tetrachloroethene	1.0	U	1.0	0.24	ug/L			08/17/17 02:11	1
2-Hexanone	5.0	U	5.0	2.0	ug/L			08/17/17 02:11	1
Dibromochloromethane	1.0	U	1.0	0.44	ug/L			08/17/17 02:11	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51	ug/L			08/17/17 02:11	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			08/17/17 02:11	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49	ug/L			08/17/17 02:11	1
Ethylbenzene	1.0	U	1.0	0.25	ug/L			08/17/17 02:11	1
Xylenes, Total	2.0	U	2.0	0.27	ug/L			08/17/17 02:11	1
Styrene	1.0	U	1.0	0.22	ug/L			08/17/17 02:11	1
Bromoform	1.0	U	1.0	0.76	ug/L			08/17/17 02:11	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37	ug/L			08/17/17 02:11	1
Acrylonitrile	20	U	20	3.3	ug/L			08/17/17 02:11	1
1,4-Dioxane	200	U	200	16	ug/L			08/17/17 02:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		65 - 121		08/17/17 02:11	1
Toluene-d8 (Surr)	91		73 - 120		08/17/17 02:11	1
4-Bromofluorobenzene (Surr)	98		80 - 120		08/17/17 02:11	1
Dibromofluoromethane (Surr)	98		73 - 120		08/17/17 02:11	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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

**Lab Sample ID: LCS 180-220320/4**

**Matrix: Water**

**Analysis Batch: 220320**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	9.11		ug/L		91	49 - 135
Vinyl chloride	10.0	10.1		ug/L		101	52 - 136
Bromomethane	10.0	11.4		ug/L		114	37 - 150
Chloroethane	10.0	10.2		ug/L		102	44 - 139
1,1-Dichloroethene	10.0	10.4		ug/L		104	64 - 131
Acetone	20.0	15.4		ug/L		77	24 - 150
Carbon disulfide	10.0	10.0		ug/L		100	20 - 150
Methylene Chloride	10.0	8.92		ug/L		89	66 - 123
trans-1,2-Dichloroethene	10.0	9.88		ug/L		99	70 - 123
Methyl tert-butyl ether	10.0	8.96		ug/L		90	66 - 130
1,1-Dichloroethane	10.0	9.70		ug/L		97	66 - 122
cis-1,2-Dichloroethene	10.0	9.14		ug/L		91	73 - 120
Bromochloromethane	10.0	8.97		ug/L		90	73 - 122
2-Butanone (MEK)	20.0	14.1		ug/L		70	37 - 150
Chloroform	10.0	9.12		ug/L		91	72 - 123
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	66 - 129
Carbon tetrachloride	10.0	9.97		ug/L		100	58 - 145
Benzene	10.0	9.30		ug/L		93	75 - 123
1,2-Dichloroethane	10.0	8.92		ug/L		89	63 - 130
Trichloroethene	10.0	9.28		ug/L		93	74 - 121
1,2-Dichloropropane	10.0	9.07		ug/L		91	67 - 119
Bromodichloromethane	10.0	8.72		ug/L		87	62 - 127
cis-1,3-Dichloropropene	10.0	8.87		ug/L		89	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	15.6		ug/L		78	41 - 135
Toluene	10.0	9.79		ug/L		98	76 - 129
trans-1,3-Dichloropropene	10.0	9.30		ug/L		93	61 - 136
1,1,2-Trichloroethane	10.0	9.07		ug/L		91	74 - 126
Tetrachloroethene	10.0	9.79		ug/L		98	76 - 128
2-Hexanone	20.0	15.3		ug/L		76	37 - 150
Dibromochloromethane	10.0	8.79		ug/L		88	63 - 131
1,2-Dibromoethane (EDB)	10.0	8.63		ug/L		86	76 - 128
Chlorobenzene	10.0	9.44		ug/L		94	79 - 124
1,1,1,2-Tetrachloroethane	10.0	9.40		ug/L		94	70 - 130
Ethylbenzene	10.0	9.46		ug/L		95	77 - 124
Xylenes, Total	20.0	18.6		ug/L		93	76 - 124
Styrene	10.0	8.96		ug/L		90	80 - 125
Bromoform	10.0	8.40		ug/L		84	54 - 136
1,1,2,2-Tetrachloroethane	10.0	8.80		ug/L		88	72 - 128
Acrylonitrile	100	85.4		ug/L		85	60 - 130
1,4-Dioxane	200	148	J	ug/L		74	26 - 150

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	92		65 - 121
Toluene-d8 (Surr)	100		73 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	92		73 - 120



# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

## GC/MS VOA

### Analysis Batch: 219487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-69061-1	HD-MW-109D-0/1-0	Total/NA	Water	8260C	
180-69061-2	HD-MW-175-0/1-0	Total/NA	Water	8260C	
180-69061-3	HD-MW-164-0/1-0	Total/NA	Water	8260C	
180-69061-4	HD-MW-169-0/1-0	Total/NA	Water	8260C	
180-69061-5	HD-MW-170-0/1-0	Total/NA	Water	8260C	
180-69061-6	HD-MW-174-0/1-0	Total/NA	Water	8260C	
180-69061-7	HD-MW-167-0/1-0	Total/NA	Water	8260C	
180-69061-9	HD-MW-166-0/1-0	Total/NA	Water	8260C	
180-69061-10	HD-MW-168-0/1-0	Total/NA	Water	8260C	
180-69061-11	HD-MW-141A-0/1-0	Total/NA	Water	8260C	
180-69061-12	HD-MW-171-0/1-0	Total/NA	Water	8260C	
180-69061-25	HD-MW-110-0/1-0	Total/NA	Water	8260C	
MB 180-219487/5	Method Blank	Total/NA	Water	8260C	
LCS 180-219487/3	Lab Control Sample	Total/NA	Water	8260C	
180-69061-25 MS	HD-MW-110-0/1-0	Total/NA	Water	8260C	
180-69061-25 MSD	HD-MW-110-0/1-0	Total/NA	Water	8260C	

### Analysis Batch: 219617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-69061-13	HD-QC1-0/1-4	Total/NA	Water	8260C	
180-69061-14	HD-QC1-0/1-3	Total/NA	Water	8260C	
180-69061-15	HD-QC1-0/1-2	Total/NA	Water	8260C	
180-69061-16	HD-MW-172-0/1-0	Total/NA	Water	8260C	
180-69061-17	HD-MW-173-0/1-0	Total/NA	Water	8260C	
180-69061-18	HD-MW-108D-0/1-0	Total/NA	Water	8260C	
180-69061-19	HD-MW-108S-0/1-0	Total/NA	Water	8260C	
180-69061-20	HD-MW-64S-0/1-0	Total/NA	Water	8260C	
180-69061-22 - DL	HD-MW-64D-0/1-0	Total/NA	Water	8260C	
180-69061-23	HD-MW-161-0/1-0	Total/NA	Water	8260C	
180-69061-27	HD-QC1-0/1-1	Total/NA	Water	8260C	
MB 180-219617/5	Method Blank	Total/NA	Water	8260C	
LCS 180-219617/3	Lab Control Sample	Total/NA	Water	8260C	
180-69061-13 MS	HD-QC1-0/1-4	Total/NA	Water	8260C	

### Analysis Batch: 219759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-69061-23 - DL	HD-MW-161-0/1-0	Total/NA	Water	8260C	
180-69061-24	HD-MW-163-0/1-0	Total/NA	Water	8260C	
180-69061-26	HD-MW-109S-0/1-0	Total/NA	Water	8260C	
180-69061-27 - DL	HD-QC1-0/1-1	Total/NA	Water	8260C	
180-69061-28	HD-MW-162-0/1-0	Total/NA	Water	8260C	
MB 180-219759/7	Method Blank	Total/NA	Water	8260C	
LCS 180-219759/4	Lab Control Sample	Total/NA	Water	8260C	

### Analysis Batch: 220320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-69061-22	HD-MW-64D-0/1-0	Total/NA	Water	8260C	
MB 180-220320/6	Method Blank	Total/NA	Water	8260C	
LCS 180-220320/4	Lab Control Sample	Total/NA	Water	8260C	



# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

**Client Sample ID: HD-MW-109D-0/1-0**

**Date Collected: 08/02/17 10:55**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 05:40	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-175-0/1-0**

**Date Collected: 08/04/17 10:00**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 06:04	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-164-0/1-0**

**Date Collected: 08/04/17 09:40**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	219487	08/09/17 06:28	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-169-0/1-0**

**Date Collected: 08/04/17 11:45**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 06:52	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-170-0/1-0**

**Date Collected: 08/04/17 09:45**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 07:15	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-174-0/1-0**

**Date Collected: 08/04/17 10:10**

**Date Received: 08/08/17 09:00**

**Lab Sample ID: 180-69061-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 08:03	FBB	TAL PIT
Instrument ID: CHHP5										

TestAmerica Pittsburgh

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

**Client Sample ID: HD-MW-167-0/1-0**

**Lab Sample ID: 180-69061-7**

Date Collected: 08/04/17 13:05

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 08:27	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-166-0/1-0**

**Lab Sample ID: 180-69061-9**

Date Collected: 08/04/17 13:25

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 09:16	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-168-0/1-0**

**Lab Sample ID: 180-69061-10**

Date Collected: 08/04/17 12:45

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 09:40	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-141A-0/1-0**

**Lab Sample ID: 180-69061-11**

Date Collected: 08/04/17 14:40

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 10:28	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-171-0/1-0**

**Lab Sample ID: 180-69061-12**

Date Collected: 08/04/17 12:00

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219487	08/09/17 10:52	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-QC1-0/1-4**

**Lab Sample ID: 180-69061-13**

Date Collected: 08/04/17 12:25

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 02:26	FBB	TAL PIT
Instrument ID: CHHP5										

TestAmerica Pittsburgh

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

**Client Sample ID: HD-QC1-0/1-3**

**Lab Sample ID: 180-69061-14**

Date Collected: 08/04/17 12:35

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 03:41	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-QC1-0/1-2**

**Lab Sample ID: 180-69061-15**

Date Collected: 08/04/17 00:00

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 04:05	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-172-0/1-0**

**Lab Sample ID: 180-69061-16**

Date Collected: 08/03/17 10:25

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 04:29	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-173-0/1-0**

**Lab Sample ID: 180-69061-17**

Date Collected: 08/03/17 10:30

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 04:53	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-108D-0/1-0**

**Lab Sample ID: 180-69061-18**

Date Collected: 08/03/17 12:28

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 05:17	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-108S-0/1-0**

**Lab Sample ID: 180-69061-19**

Date Collected: 08/03/17 15:08

Matrix: Water

Date Received: 08/08/17 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 06:04	FBB	TAL PIT
Instrument ID: CHHP5										

TestAmerica Pittsburgh

# Lab Chronicle

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

**Client Sample ID: HD-MW-64S-0/1-0**

**Lab Sample ID: 180-69061-20**

**Date Collected: 08/03/17 07:35**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	219617	08/10/17 06:28	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-64D-0/1-0**

**Lab Sample ID: 180-69061-22**

**Date Collected: 08/01/17 15:12**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	10	5 mL	5 mL	219617	08/10/17 07:16	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C		1	5 mL	5 mL	220320	08/17/17 11:07	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-161-0/1-0**

**Lab Sample ID: 180-69061-23**

**Date Collected: 08/01/17 15:25**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 08:28	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	20	5 mL	5 mL	219759	08/11/17 09:21	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-163-0/1-0**

**Lab Sample ID: 180-69061-24**

**Date Collected: 08/01/17 13:29**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219759	08/11/17 08:33	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-110-0/1-0**

**Lab Sample ID: 180-69061-25**

**Date Collected: 08/02/17 13:20**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	219487	08/09/17 04:03	FBB	TAL PIT
Instrument ID: CHHP5										

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

**Client Sample ID: HD-MW-109S-0/1-0**

**Lab Sample ID: 180-69061-26**

**Date Collected: 08/02/17 12:10**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219759	08/11/17 08:09	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-QC1-0/1-1**

**Lab Sample ID: 180-69061-27**

**Date Collected: 08/02/17 12:00**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	219617	08/10/17 09:40	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	2	5 mL	5 mL	219759	08/11/17 08:57	FBB	TAL PIT
Instrument ID: CHHP5										

**Client Sample ID: HD-MW-162-0/1-0**

**Lab Sample ID: 180-69061-28**

**Date Collected: 08/02/17 07:35**

**Matrix: Water**

**Date Received: 08/08/17 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	5 mL	5 mL	219759	08/11/17 09:45	FBB	TAL PIT
Instrument ID: CHHP5										

**Laboratory References:**

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

**Analyst References:**

Lab: TAL PIT

Batch Type: Analysis

FBB = Frank Bungard

# Accreditation/Certification Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

## Laboratory: TestAmerica Pittsburgh

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-18

# Method Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

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<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL PIT

**Protocol References:**

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

**Laboratory References:**

TAL PIT = TestAmerica Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

# Sample Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-69061-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-69061-1	HD-MW-109D-0/1-0	Water	08/02/17 10:55	08/08/17 09:00
180-69061-2	HD-MW-175-0/1-0	Water	08/04/17 10:00	08/08/17 09:00
180-69061-3	HD-MW-164-0/1-0	Water	08/04/17 09:40	08/08/17 09:00
180-69061-4	HD-MW-169-0/1-0	Water	08/04/17 11:45	08/08/17 09:00
180-69061-5	HD-MW-170-0/1-0	Water	08/04/17 09:45	08/08/17 09:00
180-69061-6	HD-MW-174-0/1-0	Water	08/04/17 10:10	08/08/17 09:00
180-69061-7	HD-MW-167-0/1-0	Water	08/04/17 13:05	08/08/17 09:00
180-69061-9	HD-MW-166-0/1-0	Water	08/04/17 13:25	08/08/17 09:00
180-69061-10	HD-MW-168-0/1-0	Water	08/04/17 12:45	08/08/17 09:00
180-69061-11	HD-MW-141A-0/1-0	Water	08/04/17 14:40	08/08/17 09:00
180-69061-12	HD-MW-171-0/1-0	Water	08/04/17 12:00	08/08/17 09:00
180-69061-13	HD-QC1-0/1-4	Water	08/04/17 12:25	08/08/17 09:00
180-69061-14	HD-QC1-0/1-3	Water	08/04/17 12:35	08/08/17 09:00
180-69061-15	HD-QC1-0/1-2	Water	08/04/17 00:00	08/08/17 09:00
180-69061-16	HD-MW-172-0/1-0	Water	08/03/17 10:25	08/08/17 09:00
180-69061-17	HD-MW-173-0/1-0	Water	08/03/17 10:30	08/08/17 09:00
180-69061-18	HD-MW-108D-0/1-0	Water	08/03/17 12:28	08/08/17 09:00
180-69061-19	HD-MW-108S-0/1-0	Water	08/03/17 15:08	08/08/17 09:00
180-69061-20	HD-MW-64S-0/1-0	Water	08/03/17 07:35	08/08/17 09:00
180-69061-22	HD-MW-64D-0/1-0	Water	08/01/17 15:12	08/08/17 09:00
180-69061-23	HD-MW-161-0/1-0	Water	08/01/17 15:25	08/08/17 09:00
180-69061-24	HD-MW-163-0/1-0	Water	08/01/17 13:29	08/08/17 09:00
180-69061-25	HD-MW-110-0/1-0	Water	08/02/17 13:20	08/08/17 09:00
180-69061-26	HD-MW-109S-0/1-0	Water	08/02/17 12:10	08/08/17 09:00
180-69061-27	HD-QC1-0/1-1	Water	08/02/17 12:00	08/08/17 09:00
180-69061-28	HD-MW-162-0/1-0	Water	08/02/17 07:35	08/08/17 09:00



## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 213537Lab Sample ID: IC 180-213537/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 06:03 Lab File ID: 50608D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	1.82	Poor chromatography	bungardf	06/08/17 07:42
1,3-Butadiene	1.97	Poor chromatography	bungardf	06/08/17 08:14

Lab Sample ID: IC 180-213537/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 06:27 Lab File ID: 50608D03.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.99	Poor chromatography	bungardf	06/08/17 08:14

Lab Sample ID: ICIS 180-213537/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 06:50 Lab File ID: 50608D04.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.97	Poor chromatography	bungardf	06/08/17 08:15

Lab Sample ID: IC 180-213537/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 07:24 Lab File ID: 50608D05.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.98	Poor chromatography	bungardf	06/08/17 08:16

Lab Sample ID: IC 180-213537/6 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 07:48 Lab File ID: 50608D06.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.98	Poor chromatography	bungardf	06/08/17 08:17

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 213537Lab Sample ID: IC 180-213537/7 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 08:11 Lab File ID: 50608D07.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.27	Poor chromatography	bungardf	06/08/17 08:55

Lab Sample ID: IC 180-213537/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 08:59 Lab File ID: 50608D09.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloro-1,2,2-trifluoroethane	3.45	Poor chromatography	bungardf	06/09/17 03:08

Lab Sample ID: ICV 180-213537/11 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 09:46 Lab File ID: 50608D11.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	1.99	Poor chromatography	bungardf	06/09/17 03:32

Lab Sample ID: ICV 180-213537/21 Client Sample ID: \_\_\_\_\_Date Analyzed: 06/08/17 13:42 Lab File ID: 50608D21.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Isopropyl alcohol	3.80	Poor chromatography	bungardf	06/09/17 03:50

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 218218Lab Sample ID: IC 180-218218/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/27/17 00:51 Lab File ID: 50727D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.76	Poor chromatography	bungardf	07/27/17 03:06

Lab Sample ID: IC 180-218218/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/27/17 01:15 Lab File ID: 50727D03.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.75	Poor chromatography	bungardf	07/27/17 03:13
1,4-Dioxane	8.05	Poor chromatography	bungardf	07/27/17 03:14

Lab Sample ID: ICIS 180-218218/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/27/17 01:39 Lab File ID: 50727D04.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.75	Poor chromatography	bungardf	07/27/17 03:15
1,4-Dioxane	8.05	Poor chromatography	bungardf	07/27/17 03:15

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 219487Lab Sample ID: CCVIS 180-219487/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/09/17 01:50 Lab File ID: 50809D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.79	Poor chromatography	bungardf	08/09/17 03:31

Lab Sample ID: 180-69061-5 Client Sample ID: HD-MW-170-0/1-0Date Analyzed: 08/09/17 07:15 Lab File ID: 50809D14.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.53	Poor chromatography	bungardf	08/09/17 22:02

Lab Sample ID: 180-69061-7 Client Sample ID: HD-MW-167-0/1-0Date Analyzed: 08/09/17 08:27 Lab File ID: 50809D17.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.44	Poor chromatography	bungardf	08/09/17 22:05

Lab Sample ID: 180-69061-9 Client Sample ID: HD-MW-166-0/1-0Date Analyzed: 08/09/17 09:16 Lab File ID: 50809D19.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.51	Poor chromatography	bungardf	08/09/17 22:07

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 219617Lab Sample ID: 180-69061-14 Client Sample ID: HD-QC1-0/1-3Date Analyzed: 08/10/17 03:41 Lab File ID: 50810D09.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzene	6.99	Poor chromatography	bungardf	08/10/17 04:02

Lab Sample ID: 180-69061-15 Client Sample ID: HD-QC1-0/1-2Date Analyzed: 08/10/17 04:05 Lab File ID: 50810D10.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.44	Poor chromatography	bungardf	08/10/17 04:25

Lab Sample ID: 180-69061-16 Client Sample ID: HD-MW-172-0/1-0Date Analyzed: 08/10/17 04:29 Lab File ID: 50810D11.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.44	Poor chromatography	bungardf	08/10/17 23:23

Lab Sample ID: 180-69061-19 Client Sample ID: HD-MW-108S-0/1-0Date Analyzed: 08/10/17 06:04 Lab File ID: 50810D15.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.44	Poor chromatography	bungardf	08/10/17 23:26

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Analysis Batch Number: 219759

Lab Sample ID: MB 180-219759/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 08/11/17 04:11 Lab File ID: 50811D07.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.52	Poor chromatography	bungardf	08/11/17 04:42

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
VOA8260INT_00070	06/22/17	05/22/17	Methanol, Lot 127999	10 mL	VOA8260INTRES_00121	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL					
							Chlorobenzene-d5	25 ug/mL					
							Fluorobenzene (IS)	25 ug/mL					
							TBA-d9 (IS)	500 ug/mL					
.VOA8260INTRES_00121	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL					
							Chlorobenzene-d5	250 ug/mL					
							Fluorobenzene (IS)	250 ug/mL					
							TBA-d9 (IS)	5000 ug/mL					
VOA8260INT_00072	08/21/17	07/21/17	Methanol, Lot 2019055	10 mL	VOA8260INTRES_00123	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL					
							Chlorobenzene-d5	25 ug/mL					
							Fluorobenzene (IS)	25 ug/mL					
							TBA-d9 (IS)	500 ug/mL					
.VOA8260INTRES_00123	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL					
							Chlorobenzene-d5	250 ug/mL					
							Fluorobenzene (IS)	250 ug/mL					
							TBA-d9 (IS)	5000 ug/mL					
VOA8260SURR_00069	06/22/17	05/22/17	Methanol, Lot 127999	100 mL	VOA8260SURRES_00126	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL					
							4-Bromofluorobenzene (Surr)	25 ug/mL					
							Dibromofluoromethane (Surr)	25 ug/mL					
							Toluene-d8 (Surr)	25 ug/mL					
.VOA8260SURRES_00126	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL					
							4-Bromofluorobenzene (Surr)	2500 ug/mL					
							Dibromofluoromethane (Surr)	2500 ug/mL					
							Toluene-d8 (Surr)	2500 ug/mL					
VOA8260SURR_00071	08/21/17	07/21/17	Methanol, Lot 2019055	100 mL	VOA8260SURRES_00118	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL					
							4-Bromofluorobenzene (Surr)	25 ug/mL					
							Dibromofluoromethane (Surr)	25 ug/mL					
							Toluene-d8 (Surr)	25 ug/mL					
.VOA8260SURRES_00118	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL					
							4-Bromofluorobenzene (Surr)	2500 ug/mL					
							Dibromofluoromethane (Surr)	2500 ug/mL					
							Toluene-d8 (Surr)	2500 ug/mL					
VOA8260VOA2ND_00246	06/09/17	06/04/17	Methanol, Lot 2019054	10 mL	VOA8260GAS2ND_00194	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
							Vinyl chloride	25 ug/mL					
					VOA8260VOA2ND_00242						1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
												1,1,1-Trichloroethane	25 ug/mL
												1,1,2,2-Tetrachloroethane	25 ug/mL
												1,1,2-Trichloroethane	25 ug/mL
												1,1-Dichloroethane	25 ug/mL
												1,1-Dichloroethene	25 ug/mL
												1,2-Dibromoethane (EDB)	25 ug/mL
												1,2-Dichloroethane	25 ug/mL
												1,2-Dichloropropane	25 ug/mL
												1,4-Dioxane	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00194	01/31/20		Restek, Lot A0124116			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00242	06/09/17	05/09/17	Methanol, Lot 136118	10 mL	VOA8260MEGA2_00060	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00060	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOA2ND_00255	08/03/17	07/27/17	Methanol, Lot 2019056	10 mL	VOA8260GAS2ND_00201	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00252	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
trans-1,3-Dichloropropene	25 ug/mL							
Trichloroethene	25 ug/mL							
Xylenes, Total	50 ug/mL							
.VOA8260GAS2ND_00201	01/31/20		Restek, Lot A0124116		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00252	08/10/17	07/10/17	Methanol, Lot 2019055	10 mL	VOA8260MEGA2_00061	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00061	12/31/18		Restek, Lot A0123775		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
							trans-1,3-Dichloropropene	2500 ug/mL					
							Trichloroethene	2500 ug/mL					
							Xylenes, Total	5000 ug/mL					
VOA8260VOA2ND_00256	08/10/17	08/03/17	Methanol, Lot 2019056	10 mL	VOA8260GAS2ND_00202	100 uL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
										VOA8260VOA2ND_00252	1 mL	Vinyl chloride	25 ug/mL
									1,1,1,2-Tetrachloroethane			25 ug/mL	
									1,1,1-Trichloroethane			25 ug/mL	
									1,1,2,2-Tetrachloroethane			25 ug/mL	
									1,1,2-Trichloroethane			25 ug/mL	
									1,1-Dichloroethane			25 ug/mL	
									1,1-Dichloroethene			25 ug/mL	
									1,2-Dibromoethane (EDB)			25 ug/mL	
									1,2-Dichloroethane			25 ug/mL	
									1,2-Dichloropropane			25 ug/mL	
									1,4-Dioxane			500 ug/mL	
									Acrylonitrile			250 ug/mL	
									Benzene			25 ug/mL	
									Bromochloromethane			25 ug/mL	
									Bromodichloromethane			25 ug/mL	
									Bromoform			25 ug/mL	
									Carbon disulfide			25 ug/mL	
									Carbon tetrachloride			25 ug/mL	
									Chlorobenzene			25 ug/mL	
									Chloroform			25 ug/mL	
									cis-1,2-Dichloroethene			25 ug/mL	
									cis-1,3-Dichloropropene			25 ug/mL	
									Dibromochloromethane			25 ug/mL	
									Ethylbenzene			25 ug/mL	
									Methyl tert-butyl ether			25 ug/mL	
									Methylene Chloride			25 ug/mL	
									Styrene			25 ug/mL	
				Tetrachloroethene	25 ug/mL								
				Toluene	25 ug/mL								
				trans-1,2-Dichloroethene	25 ug/mL								
				trans-1,3-Dichloropropene	25 ug/mL								
				Trichloroethene	25 ug/mL								
				Xylenes, Total	50 ug/mL								
.VOA8260GAS2ND_00202	01/31/20		Restek, Lot A0124116				(Purchased Reagent)	Bromomethane	2500 ug/mL				
								Chloroethane	2500 ug/mL				
								Chloromethane	2500 ug/mL				
								Vinyl chloride	2500 ug/mL				
.VOA8260VOA2ND_00252	08/10/17	07/10/17	Methanol, Lot 2019055	10 mL	VOA8260MEGA2_00061	1 mL		1,1,1,2-Tetrachloroethane	250 ug/mL				
								1,1,1-Trichloroethane	250 ug/mL				
								1,1,2,2-Tetrachloroethane	250 ug/mL				
								1,1,2-Trichloroethane	250 ug/mL				

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00061	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOA2ND_00258	08/18/17	08/11/17	Methanol, Lot 2019056	10 mL	VOA8260GAS2ND_00204	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00257	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
trans-1,2-Dichloroethene	25 ug/mL							
trans-1,3-Dichloropropene	25 ug/mL							
Trichloroethene	25 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260GAS2ND_00204	01/31/20		Restek, Lot A0124116			(Purchased Reagent)	Xylenes, Total	50 ug/mL
							Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00257	09/10/17	08/10/17	Methanol, Lot 2019055	10 mL	VOA8260MEGA2_00063	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
Trichloroethene	250 ug/mL							
Xylenes, Total	500 ug/mL							
..VOA8260MEGA2_00063	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00255	06/09/17	06/04/17	Methanol, Lot 2019054	10 mL	VOA8260GAS1ST_00197	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00251	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00197	01/31/20		Restek, Lot A0124278			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00251	06/09/17	05/09/17	Methanol, Lot 136118	10 mL	VOA8260KET1ST_00090	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00063	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluor oethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00090	01/31/20		Restek, Lot A0123890			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00063	12/31/18		Restek, Lot A0123711			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Cyclohexane	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Dibromomethane	2500 ug/mL
							Ethyl ether	2500 ug/mL
							Ethyl methacrylate	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
<b>VOA8260VOAPRI_00263</b>	07/29/17	07/22/17	Methanol, Lot 2019055	10 mL	VOA8260GAS1ST_00203	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00260	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00203	01/31/20		Restek, Lot A0124278			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00260	08/06/17	07/06/17	Methanol, Lot 2019056	10 mL	VOA8260KET1ST_00100	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00065	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropane	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropane	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropane	250 ug/mL
							2-Chlorotoluene	250 ug/mL
							2-Methyl-2-propanol	2500 ug/mL
							3-Chloro-1-propene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Chlorotoluene	250 ug/mL
							4-Isopropyltoluene	250 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromobenzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Cyclohexane	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Dibromomethane	250 ug/mL
							Ethyl ether	250 ug/mL
							Ethyl methacrylate	250 ug/mL
							Ethylbenzene	250 ug/mL
							Hexachlorobutadiene	250 ug/mL
							Hexane	250 ug/mL
							Iodomethane	250 ug/mL
							Isobutyl alcohol	6250 ug/mL
							Isopropylbenzene	250 ug/mL
							m-Xylene & p-Xylene	250 ug/mL
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
Toluene	250 ug/mL							
trans-1,2-Dichloroethene	250 ug/mL							
trans-1,3-Dichloropropene	250 ug/mL							
trans-1,4-Dichloro-2-butene	250 ug/mL							
Trichloroethene	250 ug/mL							
..VOA8260KET1ST_00100	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..VOA8260MEGA1_00065	12/31/18		Restek, Lot A0123711			(Purchased Reagent)	Acetone	12500 ug/mL
							1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromobenzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
	cis-1,3-Dichloropropene	2500 ug/mL						
	Cyclohexane	2500 ug/mL						
	Dibromochloromethane	2500 ug/mL						
	Dibromomethane	2500 ug/mL						
	Ethyl ether	2500 ug/mL						
	Ethyl methacrylate	2500 ug/mL						
	Ethylbenzene	2500 ug/mL						

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	2500 ug/mL
							Hexane	2500 ug/mL
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
<b>voaW2clev1stR_00008</b>	06/12/17	06/05/17	Methanol, Lot 136118	10 mL	VOACEVERES_00124	0.2 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00124	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
<b>voaW2clev1stR_00013</b>	07/31/17	07/24/17	Methanol, Lot 2019056	10 mL	VOACEVERES_00127	200 uL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00127	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
<b>voaWAcrol1stRe_00014</b>	06/12/17	05/12/17	Methanol, Lot 127999	100 mL	VOAACRORES_00113	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00113	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>voaWAcrol1stRe_00016</b>	08/17/17	07/17/17	Methanol, Lot 2019056	100 mL	VOAACRORES_00115	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00115	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>voaWEEmix1stR_00007</b>	07/02/17	06/02/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00038	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOARESEE1ST_00038	01/01/18		Restek, Lot A0120234			(Purchased Reagent)	4-Chlorobenzotrifluoride	25 ug/mL
							1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
4-Chlorobenzotrifluoride	5000 ug/mL							
voaWEEmix1stR_00009	08/03/17	07/03/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00045	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00045	01/31/18		Restek, Lot A0120234			(Purchased Reagent)	1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKet2ndRes_00019	06/12/17	05/12/17	Methanol, Lot 127999	50 mL	VOA8260KET2ND_00094	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00094	03/31/19		Restek, Lot A0123880			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
<b>voaWKet2ndRes_00021</b>	08/24/17	07/24/17	Methanol, Lot 2019056	50 mL	VOA8260KET2ND_00098	100 uL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00098	03/31/19		Restek, Lot A0123880		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
<b>voaWKetmix1st_00003</b>	06/25/17	05/25/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00097	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00097	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
<b>voaWKetmix1st_00004</b>	07/29/17	06/29/17	Methanol, Lot 2019054	50 mL	VOA8260KET1ST_00099	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00099	01/31/20		Restek, Lot A0123890		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
<b>voaWVA1stRest_00015</b>	07/05/17	06/05/17	Methanol, Lot 136118	25 mL	VOA8260VARES_00081	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00081	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
<b>voaWVA1stRest_00017</b>	07/31/17	07/24/16	Methanol, Lot 2019067	25 mL	VOA8260VARES_00083	125 uL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00083	07/31/17		Restek, Lot A0124520		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

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**VOA8260GAS1ST\_00197**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 569722 Lot No.: A0124278

Description : 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,500.5 µg/mL	+/-	16.7232	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	140.4412	µg/mL	Unstressed
	Purity 99%		+/-	143.7161	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,498.7 µg/mL	+/-	17.4998	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBG7976V)		+/-	140.4406	µg/mL	Unstressed
	Purity 99%		+/-	143.7111	µg/mL	Stressed
3	Vinyl chloride	2,498.4 µg/mL	+/-	16.6753	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 1026101231B1)		+/-	140.3203	µg/mL	Unstressed
	Purity 99%		+/-	143.5926	µg/mL	Stressed
4	1,3-Butadiene	2,496.9 µg/mL	+/-	17.0619	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	140.2843	µg/mL	Unstressed
	Purity 99%		+/-	143.5535	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,500.5 µg/mL	+/-	17.3456	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	140.5211	µg/mL	Unstressed
	Purity 99%		+/-	143.7944	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.5 µg/mL	+/-	16.8189	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 23593)		+/-	140.4526	µg/mL	Unstressed
	Purity 99%		+/-	143.7272	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/-	10.0499	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 4938100)		+/-	139.7786	µg/mL	Unstressed
	Purity 99%		+/-	143.0675	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,501.5 µg/mL	+/- 16.5404	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBG7531V)		+/- 140.4793	µg/mL	Unstressed
	Purity 99%		+/- 143.7562	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
60m x 0.25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

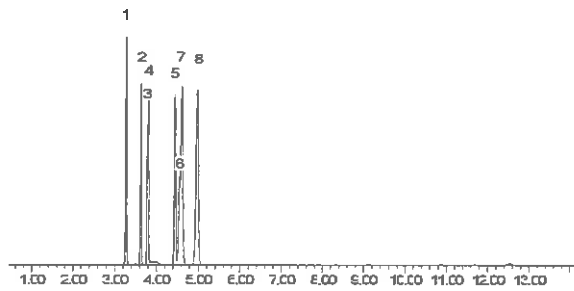
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**Temp. Program:**  
40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Joseph Jaglowski*  
Joseph Jaglowski - Mix Technician

**Date Mixed:** 17-Jan-2017 **Balance:** 1125113331

*Jennifer J. Pollino*  
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 24-Jan-2017

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

Reagent

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**VOA8260GAS1ST\_00203**





# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 569722 Lot No.: A0124278

Description : 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			Value	Unit	Method	Notes
1	Dichlorodifluoromethane (CFC-12)	2,500.5 µg/mL	+/- 16.7232	µg/mL	Gravimetric	
	CAS # 75-71-8 (Lot Q167-08)		+/- 140.4412	µg/mL	Unstressed	
	Purity 99%		+/- 143.7161	µg/mL	Stressed	
2	Chloromethane (methyl chloride)	2,498.7 µg/mL	+/- 17.4998	µg/mL	Gravimetric	
	CAS # 74-87-3 (Lot SHBG7976V)		+/- 140.4406	µg/mL	Unstressed	
	Purity 99%		+/- 143.7111	µg/mL	Stressed	
3	Vinyl chloride	2,498.4 µg/mL	+/- 16.6753	µg/mL	Gravimetric	
	CAS # 75-01-4 (Lot 1026101231B1)		+/- 140.3203	µg/mL	Unstressed	
	Purity 99%		+/- 143.5926	µg/mL	Stressed	
4	1,3-Butadiene	2,496.9 µg/mL	+/- 17.0619	µg/mL	Gravimetric	
	CAS # 106-99-0 (Lot SHBF3387V)		+/- 140.2843	µg/mL	Unstressed	
	Purity 99%		+/- 143.5535	µg/mL	Stressed	
5	Bromomethane (methyl bromide)	2,500.5 µg/mL	+/- 17.3456	µg/mL	Gravimetric	
	CAS # 74-83-9 (Lot 101604)		+/- 140.5211	µg/mL	Unstressed	
	Purity 99%		+/- 143.7944	µg/mL	Stressed	
6	Chloroethane (ethyl chloride)	2,500.5 µg/mL	+/- 16.8189	µg/mL	Gravimetric	
	CAS # 75-00-3 (Lot 23593)		+/- 140.4526	µg/mL	Unstressed	
	Purity 99%		+/- 143.7272	µg/mL	Stressed	
7	Dichlorofluoromethane (CFC-21)	2,500.0 µg/mL	+/- 10.0499	µg/mL	Gravimetric	
	CAS # 75-43-4 (Lot 4938100)		+/- 139.7786	µg/mL	Unstressed	
	Purity 99%		+/- 143.0675	µg/mL	Stressed	

8	Trichlorofluoromethane (CFC-11)	2,501.5	µg/mL	+/-	16.5404	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBG7531V)			+/-	140.4793	µg/mL	Unstressed
	Purity 99%			+/-	143.7562	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
60m x 0.25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

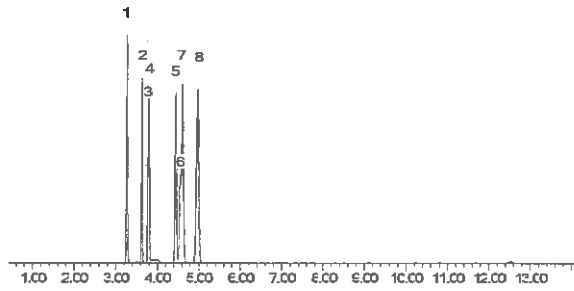
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**Temp. Program:**  
40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Joseph Jaglowski*  
Joseph Jaglowski - Mix Technician

**Date Mixed:** 17-Jan-2017      **Balance:** 1125113331

*Jennifer J Pollino*  
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 24-Jan-2017

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

Reagent

---

**VOA8260GAS2ND\_00194**

# RESTEK CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: (800)356-1688  
 Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722.SEC                      **Lot No.:** A0124116  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL                                      **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2020                                      **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.: K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,503.4 µg/mL	+/-	19.5506	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 23586)		+/-	140.9699	µg/mL	Unstressed
	Purity 99%		+/-	144.2404	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,508.1 µg/mL	+/-	21.1963	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	141.4639	µg/mL	Unstressed
	Purity 99%		+/-	144.7353	µg/mL	Stressed
3	Vinyl chloride	2,518.6 µg/mL	+/-	19.4186	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	141.7924	µg/mL	Unstressed
	Purity 99%		+/-	145.0836	µg/mL	Stressed
4	1,3-Butadiene	2,504.0 µg/mL	+/-	20.5722	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/-	141.1450	µg/mL	Unstressed
	Purity 99%		+/-	144.4130	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,498.5 µg/mL	+/-	19.9806	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	140.7602	µg/mL	Unstressed
	Purity 99%		+/-	144.0229	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,494.9 µg/mL	+/-	17.8868	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	140.2786	µg/mL	Unstressed
	Purity 99%		+/-	143.5429	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,503.4 µg/mL	+/-	20.0421	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	141.0350	µg/mL	Unstressed
	Purity 99%		+/-	144.3039	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,503.2 µg/mL	+/- 18.7037	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q12B-59)		+/- 140.8450	µg/mL	Unstressed
	Purity 99%		+/- 144.1179	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
60m x 0.25mm x 1.4µm  
Rtx-S02.2 (cat.#10916)

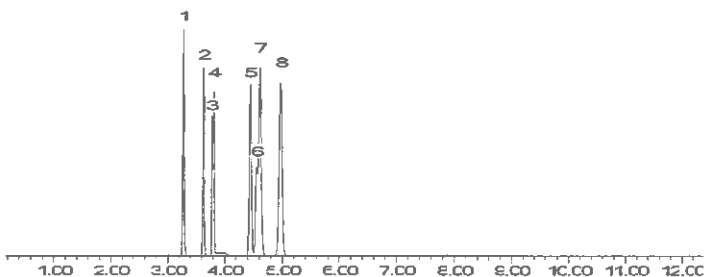
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**Temp. Program:**  
40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Brandon Reish*

Brandon Reish - Mix Technician

**Date Mixed:** 12-Jan-2017

**Balance:** 1127510105

*Jennifer J. Pollino*

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 17-Jan-2017

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

Reagent

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**VOA8260GAS2ND\_00201**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722.SEC **Lot No.:** A0124116

**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,503.4 µg/mL	+/-	19.5506	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 23586)		+/-	140.9699	µg/mL	Unstressed
	Purity 99%		+/-	144.2404	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,508.1 µg/mL	+/-	21.1963	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	141.4639	µg/mL	Unstressed
	Purity 99%		+/-	144.7353	µg/mL	Stressed
3	Vinyl chloride	2,518.6 µg/mL	+/-	19.4186	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	141.7924	µg/mL	Unstressed
	Purity 99%		+/-	145.0836	µg/mL	Stressed
4	1,3-Butadiene	2,504.0 µg/mL	+/-	20.5722	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/-	141.1450	µg/mL	Unstressed
	Purity 99%		+/-	144.4130	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,498.5 µg/mL	+/-	19.9806	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	140.7602	µg/mL	Unstressed
	Purity 99%		+/-	144.0229	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,494.9 µg/mL	+/-	17.8868	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	140.2786	µg/mL	Unstressed
	Purity 99%		+/-	143.5429	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,503.4 µg/mL	+/-	20.0421	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	141.0350	µg/mL	Unstressed
	Purity 99%		+/-	144.3039	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,503.2	µg/mL	+/-	18.7037	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q12B-59)			+/-	140.8450	µg/mL	Unstressed
	Purity 99%			+/-	144.1179	µg/mL	Stressed

**Solvent:** P&T Methanol  
 CAS # 67-56-1  
 Purity 99%

**Column:**  
 60m x 0.25mm x 1.4µm  
 Rtx-502.2 (cat.#10916)

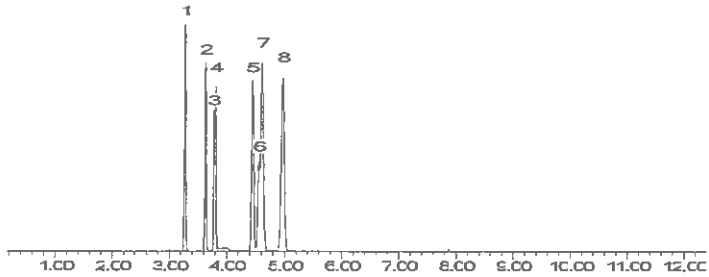
**Carrier Gas:**  
 helium-constant flow 2.0 mL/min.

**Temp. Program:**  
 40°C (hold 6 min.) to 100°C  
 @ 6°C/min.

**Inj. Temp:**  
 200°C

**Det. Temp:**  
 250°C

**Det. Type:**  
 MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Brandon Reish*

Brandon Reish - Mix Technician

Date Mixed: 12-Jan-2017

Balance: 1127510105

*Jennifer J Pollino*

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397
---



Reagent

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**VOA8260GAS2ND\_00202**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: (800)356-1688  
 Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722.SEC **Lot No.:** A0124116  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,503.4 µg/mL	+/-	19.5506	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 23586)		+/-	140.9699	µg/mL	Unstressed
	Purity 99%		+/-	144.2404	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,508.1 µg/mL	+/-	21.1963	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	141.4639	µg/mL	Unstressed
	Purity 99%		+/-	144.7353	µg/mL	Stressed
3	Vinyl chloride	2,518.6 µg/mL	+/-	19.4186	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	141.7924	µg/mL	Unstressed
	Purity 99%		+/-	145.0836	µg/mL	Stressed
4	1,3-Butadiene	2,504.0 µg/mL	+/-	20.5722	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/-	141.1450	µg/mL	Unstressed
	Purity 99%		+/-	144.4130	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,498.5 µg/mL	+/-	19.9806	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	140.7602	µg/mL	Unstressed
	Purity 99%		+/-	144.0229	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,494.9 µg/mL	+/-	17.8868	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	140.2786	µg/mL	Unstressed
	Purity 99%		+/-	143.5429	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,503.4 µg/mL	+/-	20.0421	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	141.0350	µg/mL	Unstressed
	Purity 99%		+/-	144.3039	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,503.2	μg/mL	+/-	18.7037	μg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q12B-59)			+/-	140.8450	μg/mL	Unstressed
	Purity 99%			+/-	144.1179	μg/mL	Stressed

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

**Column:**  
60m x 0.25mm x 1.4μm  
Rtx-502.2 (cat.#10916)

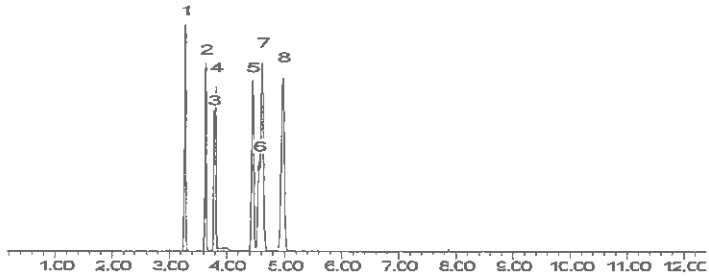
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**Temp. Program:**  
40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Brandon Reish*

Brandon Reish - Mix Technician

Date Mixed: 12-Jan-2017

Balance: 1127510105

*Jennifer J Pollino*

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2017

<p>Manufactured under Restek's ISO 9001:2008  Registered Quality System  Certificate #FM 80397</p>
--

Reagent

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**VOA8260GAS2ND\_00204**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722.SEC **Lot No.:** A0124116

**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,503.4 µg/mL	+/-	19.5506	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 23586)		+/-	140.9699	µg/mL	Unstressed
	Purity 99%		+/-	144.2404	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,508.1 µg/mL	+/-	21.1963	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	141.4639	µg/mL	Unstressed
	Purity 99%		+/-	144.7353	µg/mL	Stressed
3	Vinyl chloride	2,518.6 µg/mL	+/-	19.4186	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	141.7924	µg/mL	Unstressed
	Purity 99%		+/-	145.0836	µg/mL	Stressed
4	1,3-Butadiene	2,504.0 µg/mL	+/-	20.5722	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 22331)		+/-	141.1450	µg/mL	Unstressed
	Purity 99%		+/-	144.4130	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,498.5 µg/mL	+/-	19.9806	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	140.7602	µg/mL	Unstressed
	Purity 99%		+/-	144.0229	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,494.9 µg/mL	+/-	17.8868	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	140.2786	µg/mL	Unstressed
	Purity 99%		+/-	143.5429	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,503.4 µg/mL	+/-	20.0421	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	141.0350	µg/mL	Unstressed
	Purity 99%		+/-	144.3039	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,503.2	μg/mL	+/-	18.7037	μg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot Q12B-59)			+/-	140.8450	μg/mL	Unstressed
	Purity 99%			+/-	144.1179	μg/mL	Stressed

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

**Column:**  
60m x 0.25mm x 1.4μm  
Rtx-502.2 (cat.#10916)

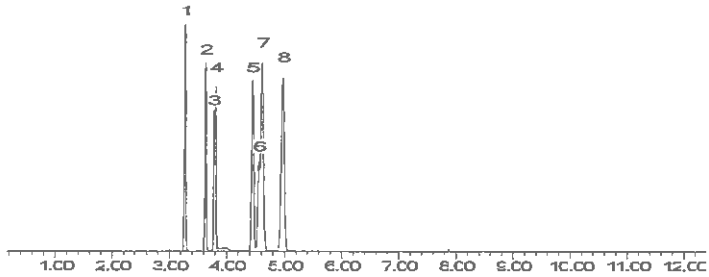
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**Temp. Program:**  
40°C (hold 6 min.) to 100°C  
@ 6°C/min.

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Brandon Reish*

Brandon Reish - Mix Technician

Date Mixed: 12-Jan-2017

Balance: 1127510105

*Jennifer J Pollino*

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2017

<p>Manufactured under Restek's ISO 9001:2008  Registered Quality System  Certificate #FM 80397</p>
--

Reagent

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**VOA8260INTRES\_00121**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 568718 Lot No.: A0113246

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : August 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I201P18)	5,000.4 µg/mL	+/-	29.0712	µg/mL Gravimetric
			+/-	106.0450	µg/mL Unstressed
			+/-	106.5155	µg/mL Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M276P24)	1,250.2 µg/mL	+/-	7.2688	µg/mL Gravimetric
			+/-	26.5135	µg/mL Unstressed
			+/-	26.6311	µg/mL Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot BCBK8171V)	250.2 µg/mL	+/-	1.4580	µg/mL Gravimetric
			+/-	5.3070	µg/mL Unstressed
			+/-	5.3305	µg/mL Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 98% (Lot I-19073)	5,000.6 µg/mL	+/-	29.0727	µg/mL Gravimetric
			+/-	106.0502	µg/mL Unstressed
			+/-	106.5208	µg/mL Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-23926)	250.4 µg/mL	+/-	1.4592	µg/mL Gravimetric
			+/-	5.3113	µg/mL Unstressed
			+/-	5.3348	µg/mL Stressed
6	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	250.0 µg/mL	+/-	1.4569	µg/mL Gravimetric
			+/-	5.3028	µg/mL Unstressed
			+/-	5.3263	µg/mL Stressed



Reagent

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**VOA8260INTRES\_00123**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
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## Certificate of Analysis

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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 568718 Lot No.: A0113246

Description : 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul

Container Size : 5 mL Pkg Amt: > 5 mL

Expiration Date : August 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I201P18)	5,000.4 µg/mL	+/-	29.0712	µg/mL Gravimetric
			+/-	106.0450	µg/mL Unstressed
			+/-	106.5155	µg/mL Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M276P24)	1,250.2 µg/mL	+/-	7.2688	µg/mL Gravimetric
			+/-	26.5135	µg/mL Unstressed
			+/-	26.6311	µg/mL Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot BCBK8171V)	250.2 µg/mL	+/-	1.4580	µg/mL Gravimetric
			+/-	5.3070	µg/mL Unstressed
			+/-	5.3305	µg/mL Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 98% (Lot I-19073)	5,000.6 µg/mL	+/-	29.0727	µg/mL Gravimetric
			+/-	106.0502	µg/mL Unstressed
			+/-	106.5208	µg/mL Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-23926)	250.4 µg/mL	+/-	1.4592	µg/mL Gravimetric
			+/-	5.3113	µg/mL Unstressed
			+/-	5.3348	µg/mL Stressed
6	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	250.0 µg/mL	+/-	1.4569	µg/mL Gravimetric
			+/-	5.3028	µg/mL Unstressed
			+/-	5.3263	µg/mL Stressed

Reagent

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**VOA8260KET1ST\_00090**



# CERTIFIED REFERENCE MATERIAL

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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No. : 569721 Lot No.: A0123890

Description : 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,517.5 µg/mL (Lot SHBH0922V)	+/-	72.7778	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	755.2362	µg/mL	Unstressed
	Purity 99%		+/-	757.0293	µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL (Lot SHBF2461V)	+/-	72.8025	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	755.4927	µg/mL	Unstressed
	Purity 99%		+/-	757.2863	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL (Lot SHBG3630V)	+/-	72.7909	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	755.3720	µg/mL	Unstressed
	Purity 99%		+/-	757.1654	µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL (Lot MKBW0198V)	+/-	72.7255	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.6932	µg/mL	Unstressed
	Purity 99%		+/-	756.4850	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)  
CAS # 67-56-1/7732-18-5  
Purity 99%

Reagent

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**VOA8260KET1ST\_00097**



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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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**Catalog No. :** 569721 **Lot No.:** A0123890  
**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Acetone	12,517.5 µg/mL (Lot SHBH0922V)	+/-	72.7778	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	755.2362	µg/mL	Unstressed
	Purity 99%		+/-	757.0293	µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL (Lot SHBF2461V)	+/-	72.8025	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	755.4927	µg/mL	Unstressed
	Purity 99%		+/-	757.2863	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL (Lot SHBG3630V)	+/-	72.7909	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	755.3720	µg/mL	Unstressed
	Purity 99%		+/-	757.1654	µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL (Lot MKBW0198V)	+/-	72.7255	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.6932	µg/mL	Unstressed
	Purity 99%		+/-	756.4850	µg/mL	Stressed

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%

Reagent

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**VOA8260KET1ST\_00099**



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**Catalog No. :** 569721 **Lot No.:** A0123890  
**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Acetone	12,517.5 µg/mL (Lot SHBH0922V)	+/-	72.7778	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	755.2362	µg/mL	Unstressed
	Purity 99%		+/-	757.0293	µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL (Lot SHBF2461V)	+/-	72.8025	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	755.4927	µg/mL	Unstressed
	Purity 99%		+/-	757.2863	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL (Lot SHBG3630V)	+/-	72.7909	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	755.3720	µg/mL	Unstressed
	Purity 99%		+/-	757.1654	µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL (Lot MKBW0198V)	+/-	72.7255	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.6932	µg/mL	Unstressed
	Purity 99%		+/-	756.4850	µg/mL	Stressed

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%



Reagent

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**VOA8260KET1ST\_00100**



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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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**Catalog No. :** 569721 **Lot No.:** A0123890

**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Acetone	12,517.5 µg/mL (Lot SHBH0922V)	+/-	72.7778	µg/mL	Gravimetric
	CAS # 67-64-1		+/-	755.2362	µg/mL	Unstressed
	Purity 99%		+/-	757.0293	µg/mL	Stressed
2	2-Butanone (MEK)	12,521.8 µg/mL (Lot SHBF2461V)	+/-	72.8025	µg/mL	Gravimetric
	CAS # 78-93-3		+/-	755.4927	µg/mL	Unstressed
	Purity 99%		+/-	757.2863	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,519.8 µg/mL (Lot SHBG3630V)	+/-	72.7909	µg/mL	Gravimetric
	CAS # 108-10-1		+/-	755.3720	µg/mL	Unstressed
	Purity 99%		+/-	757.1654	µg/mL	Stressed
4	2-Hexanone	12,508.5 µg/mL (Lot MKBW0198V)	+/-	72.7255	µg/mL	Gravimetric
	CAS # 591-78-6		+/-	754.6932	µg/mL	Unstressed
	Purity 99%		+/-	756.4850	µg/mL	Stressed

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%

Reagent

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**VOA8260KET2ND\_00094**



# CERTIFIED REFERENCE MATERIAL

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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569721.sec **Lot No.:** A0123880

**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,501.6 µg/mL	+/- 73.1996 µg/mL Gravimetric	
	CAS # 67-64-1.SEC (Lot P14A572)			+/- 754.3267 µg/mL Unstressed
	Purity 99%			+/- 756.1173 µg/mL Stressed
2	2-Butanone (MEK)	12,503.6 µg/mL	+/- 73.2113 µg/mL Gravimetric	
	CAS # 78-93-3.SEC (Lot RA58J)			+/- 754.4473 µg/mL Unstressed
	Purity 99%			+/- 756.2383 µg/mL Stressed
3	4-Methyl-2-pentanone (MIBK)	12,506.0 µg/mL	+/- 73.2254 µg/mL Gravimetric	
	CAS # 108-10-1.SEC (Lot E29T040)			+/- 754.5921 µg/mL Unstressed
	Purity 99%			+/- 756.3834 µg/mL Stressed
4	2-Hexanone	12,504.0 µg/mL	+/- 73.2137 µg/mL Gravimetric	
	CAS # 591-78-6.SEC (Lot V3NRA)			+/- 754.4715 µg/mL Unstressed
	Purity 99%			+/- 756.2625 µg/mL Stressed

**Solvent:** P&T Methanol/Water (90:10)  
**CAS #** 67-56-1/7732-18-5  
**Purity** 99%

Reagent

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**VOA8260KET2ND\_00098**



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**Catalog No. :** 569721.sec **Lot No.:** A0123880

**Description :** 8260 List 1/ Std #2 Ketones (2015)  
8260 List 1/ Std #2 Ketones (2015) 12,500 µg/ml, P&T Methanol/Water (90:10), 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	12,501.6 µg/mL	+/- 73.1996 µg/mL Gravimetric	
	CAS # 67-64-1.SEC (Lot P14A572)			+/- 754.3267 µg/mL Unstressed
	Purity 99%			+/- 756.1173 µg/mL Stressed
2	2-Butanone (MEK)	12,503.6 µg/mL	+/- 73.2113 µg/mL Gravimetric	
	CAS # 78-93-3.SEC (Lot RA58J)			+/- 754.4473 µg/mL Unstressed
	Purity 99%			+/- 756.2383 µg/mL Stressed
3	4-Methyl-2-pentanone (MIBK)	12,506.0 µg/mL	+/- 73.2254 µg/mL Gravimetric	
	CAS # 108-10-1.SEC (Lot E29T040)			+/- 754.5921 µg/mL Unstressed
	Purity 99%			+/- 756.3834 µg/mL Stressed
4	2-Hexanone	12,504.0 µg/mL	+/- 73.2137 µg/mL Gravimetric	
	CAS # 591-78-6.SEC (Lot V3NRA)			+/- 754.4715 µg/mL Unstressed
	Purity 99%			+/- 756.2625 µg/mL Stressed

**Solvent:** P&T Methanol/Water (90:10)  
CAS # 67-56-1/7732-18-5  
Purity 99%

Reagent

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**VOA8260MEGA1\_00063**



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### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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**Catalog No. :** 571992 **Lot No.:** A0123711  
**Description :** 8260 List 1 / Std #1 MegaMix (2017)  
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether)	2,501.3 µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBG1462V)		+/-	150.9115	µg/mL	Unstressed
	Purity 99%		+/-	151.2698	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,505.1 µg/mL	+/-	14.5650	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00009482)		+/-	151.1453	µg/mL	Unstressed
	Purity 99%		+/-	151.5041	µg/mL	Stressed
3	1,1-dichloroethene	2,511.5 µg/mL	+/-	14.6021	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBG8609V)		+/-	151.5299	µg/mL	Unstressed
	Purity 99%		+/-	151.8897	µg/mL	Stressed
4	tert-Butanol (TBA)	25,001.8 µg/mL	+/-	145.3547	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBF0688V)		+/-	1,508.4656	µg/mL	Unstressed
	Purity 99%		+/-	1,512.0470	µg/mL	Stressed
5	Methyl acetate	5,000.5 µg/mL	+/-	29.0733	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBG4345V)		+/-	301.7023	µg/mL	Unstressed
	Purity 99%		+/-	302.4186	µg/mL	Stressed
6	Iodomethane (methyl iodide)	2,502.9 µg/mL	+/-	14.5519	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBF2149V)		+/-	151.0095	µg/mL	Unstressed
	Purity 99%		+/-	151.3681	µg/mL	Stressed
7	Allyl chloride ( 3-chloropropene )	2,517.1 µg/mL	+/-	14.6348	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot SHBF8133V)		+/-	151.8693	µg/mL	Unstressed
	Purity 99%		+/-	152.2299	µg/mL	Stressed



8	Methylene chloride (dichloromethane) CAS # 75-09-2 Purity 99%	(Lot SHBH2578V)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot S20A856)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot T07B2030)	25,001.3 µg/mL	+/- 145.3518 +/- 1,508.4355 +/- 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4 Purity 99%	(Lot SHBG2655V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2 Purity 98%	(Lot MKBV2831V)	2,500.5 µg/mL	+/- 14.5379 +/- 150.8644 +/- 151.2226	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBG2674V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane CAS # 75-34-3 Purity 99%	(Lot 00008621)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane CAS # 594-20-7 Purity 98%	(Lot BCBR0622V)	2,501.0 µg/mL	+/- 14.5408 +/- 150.8940 +/- 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5 Purity 99%	(Lot 09431AEV)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBG8201V)	62,512.5 µg/mL	+/- 363.4341 +/- 3,771.6543 +/- 3,780.6088	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform CAS # 67-66-3 Purity 99%	(Lot MKBV2089V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00004559)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBG2910V)	5,001.3 µg/mL	+/- 29.0777 +/- 301.7476 +/- 302.4640	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane CAS # 71-55-6 Purity 99%	(Lot B15W12061)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKBX4768V)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 160727JLM)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/-	14.5541 151.0322 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBG6171V)	2,505.5	µg/mL	+/-	14.5672 151.1679 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/-	14.5628 151.1227 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBH1955V)	2,502.4	µg/mL	+/-	14.5490 150.9794 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2 Purity 98%	(Lot SHBG0634V)	2,500.3	µg/mL	+/-	14.5372 150.8570 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/-	14.5527 151.0171 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/-	290.7552 3,017.4064 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 98%	(Lot 10183283)	2,501.9	µg/mL	+/-	14.5465 150.9531 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 22622)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/-	14.5599 151.0925 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C584177)	2,503.6	µg/mL	+/-	14.5563 151.0548 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,503.5	µg/mL	+/-	14.5556 151.0472 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD9374V)	2,500.9	µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBW3597V)	2,500.2 µg/mL	+/- 14.5365 +/- 150.8497 +/- 151.2078	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBF0505V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBG4347V)	1,250.3 µg/mL	+/- 7.2691 +/- 75.4331 +/- 75.6122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBG3928V)	1,251.3 µg/mL	+/- 7.2749 +/- 75.4935 +/- 75.6727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBG5920V)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6 Purity 99%	(Lot SHBH3432V)	2,504.9 µg/mL	+/- 14.5636 +/- 151.1302 +/- 151.4890	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot MKBS7097V)	2,506.3 µg/mL	+/- 14.5716 +/- 151.2132 +/- 151.5722	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10185056)	2,501.6 µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBD8459V)	2,502.9 µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane CAS # 75-27-4 Purity 97%	(Lot MKBW5506V)	2,506.8 µg/mL	+/- 14.5750 +/- 151.2490 +/- 151.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	2,508.5 µg/mL	+/- 14.5846 +/- 151.3489 +/- 151.7082	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot MKBP6041V)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8817 +/- 151.2399	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBJ0332V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBQ2165V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBW5554V)	2,500.6 µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBL7753V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ6229V)	2,500.8 µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBR9260V)	2,505.4 µg/mL	+/- 14.5665 +/- 151.1604 +/- 151.5193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBS2604V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBM5751V)	2,503.9 µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS1350V)	2,509.9 µg/mL	+/- 14.5926 +/- 151.4319 +/- 151.7914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBD7331V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.0 µg/mL	+/- 14.5643 +/- 151.1378 +/- 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBC5541V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	2,506.5 µg/mL	+/- 14.5728 +/- 151.2266 +/- 151.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBW2603V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,511.1 µg/mL	+/-	14.5999 µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	151.5073 µg/mL	Unstressed
	Purity 99%			+/-	151.8670 µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
 60m x 0.25mm x 1.4µm  
 Rtx-502.2 (cat.#10916)

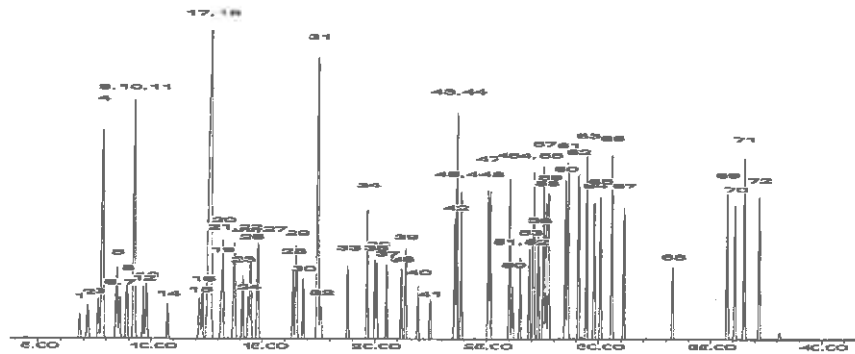
**Carrier Gas:**  
 helium-constant pressure 30 psi

**Temp. Program:**  
 40°C (hold 6 min.) to 240°C  
 @ 6°C/min. (hold 10 min.)

**Inj. Temp:**  
 200°C

**Det. Temp:**  
 250°C

**Det. Type:**  
 MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*F. Joseph Tallon*  
 F. Joseph Tallon - Mix Technician

**Date Mixed:** 22-Dec-2016    **Balance:** B251644995

*Jennifer Pollino*  
 Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008  
 Registered Quality System  
 Certificate #FM 80397

Reagent

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**VOA8260MEGA1\_00065**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992 **Lot No.:** A0123711

**Description :** 8260 List 1 / Std #1 MegaMix (2017)  
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diethyl ether (ethyl ether) CAS # 60-29-7 (Lot SHBG1462V) Purity 99%	2,501.3 µg/mL	+/- 14.5425	µg/mL	Gravimetric	
			+/- 150.9115	µg/mL	Unstressed	
			+/- 151.2698	µg/mL	Stressed	
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 (Lot 00009482) Purity 99%	2,505.1 µg/mL	+/- 14.5650	µg/mL	Gravimetric	
			+/- 151.1453	µg/mL	Unstressed	
			+/- 151.5041	µg/mL	Stressed	
3	1,1-dichloroethene CAS # 75-35-4 (Lot SHBG8609V) Purity 99%	2,511.5 µg/mL	+/- 14.6021	µg/mL	Gravimetric	
			+/- 151.5299	µg/mL	Unstressed	
			+/- 151.8897	µg/mL	Stressed	
4	tert-Butanol (TBA) CAS # 75-65-0 (Lot SHBF0688V) Purity 99%	25,001.8 µg/mL	+/- 145.3547	µg/mL	Gravimetric	
			+/- 1,508.4656	µg/mL	Unstressed	
			+/- 1,512.0470	µg/mL	Stressed	
5	Methyl acetate CAS # 79-20-9 (Lot SHBG4345V) Purity 99%	5,000.5 µg/mL	+/- 29.0733	µg/mL	Gravimetric	
			+/- 301.7023	µg/mL	Unstressed	
			+/- 302.4186	µg/mL	Stressed	
6	Iodomethane (methyl iodide) CAS # 74-88-4 (Lot SHBF2149V) Purity 99%	2,502.9 µg/mL	+/- 14.5519	µg/mL	Gravimetric	
			+/- 151.0095	µg/mL	Unstressed	
			+/- 151.3681	µg/mL	Stressed	
7	Allyl chloride ( 3-chloropropene ) CAS # 107-05-1 (Lot SHBF8133V) Purity 99%	2,517.1 µg/mL	+/- 14.6348	µg/mL	Gravimetric	
			+/- 151.8693	µg/mL	Unstressed	
			+/- 152.2299	µg/mL	Stressed	

8	Methylene chloride (dichloromethane) CAS # 75-09-2 Purity 99%	(Lot SHBH2578V)	2,502.1 µg/mL	+/- 14.5476 +/- 150.9643 +/- 151.3227	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot S20A856)	2,501.4 µg/mL	+/- 14.5432 +/- 150.9190 +/- 151.2773	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot T07B2030)	25,001.3 µg/mL	+/- 145.3518 +/- 1,508.4355 +/- 1,512.0167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4 Purity 99%	(Lot SHBG2655V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2 Purity 98%	(Lot MKBV2831V)	2,500.5 µg/mL	+/- 14.5379 +/- 150.8644 +/- 151.2226	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBG2674V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,1-Dichloroethane CAS # 75-34-3 Purity 99%	(Lot 00008621)	2,500.4 µg/mL	+/- 14.5374 +/- 150.8587 +/- 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	2,2-Dichloropropane CAS # 594-20-7 Purity 98%	(Lot BCBR0622V)	2,501.0 µg/mL	+/- 14.5408 +/- 150.8940 +/- 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5 Purity 99%	(Lot 09431AEV)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBG8201V)	62,512.5 µg/mL	+/- 363.4341 +/- 3,771.6543 +/- 3,780.6088	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	chloroform CAS # 67-66-3 Purity 99%	(Lot MKBV2089V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00004559)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBG2910V)	5,001.3 µg/mL	+/- 29.0777 +/- 301.7476 +/- 302.4640	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,1-trichloroethane CAS # 71-55-6 Purity 99%	(Lot B15W12061)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKBX4768V)	2,502.0 µg/mL	+/- 14.5468 +/- 150.9567 +/- 151.3151	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 160727JLM)	2,500.5 µg/mL	+/- 14.5381 +/- 150.8662 +/- 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



24	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBG1763V)	2,503.3	µg/mL	+/-	14.5541 151.0322 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBG6171V)	2,505.5	µg/mL	+/-	14.5672 151.1679 151.5268	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBF9313V)	2,504.8	µg/mL	+/-	14.5628 151.1227 151.4815	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBH2056V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBH1955V)	2,502.4	µg/mL	+/-	14.5490 150.9794 151.3378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2 Purity 98%	(Lot SHBG0634V)	2,500.3	µg/mL	+/-	14.5372 150.8570 151.2152	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,503.0	µg/mL	+/-	14.5527 151.0171 151.3756	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBH2584V)	50,011.4	µg/mL	+/-	290.7552 3,017.4064 3,024.5702	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 98%	(Lot 10183283)	2,501.9	µg/mL	+/-	14.5465 150.9531 151.3115	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 22622)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBH1932V)	2,504.3	µg/mL	+/-	14.5599 151.0925 151.4512	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot SHBD9190V)	2,506.9	µg/mL	+/-	14.5752 151.2509 151.6100	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C584177)	2,503.6	µg/mL	+/-	14.5563 151.0548 151.4134	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,501.0	µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,503.5	µg/mL	+/-	14.5556 151.0472 151.4059	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD9374V)	2,500.9	µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBW3597V)	2,500.2 µg/mL	+/- 14.5365 +/- 150.8497 +/- 151.2078	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBF0505V)	2,500.1 µg/mL	+/- 14.5359 +/- 150.8436 +/- 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBG4347V)	1,250.3 µg/mL	+/- 7.2691 +/- 75.4331 +/- 75.6122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBG3928V)	1,251.3 µg/mL	+/- 7.2749 +/- 75.4935 +/- 75.6727	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBG5920V)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,500.3 µg/mL	+/- 14.5367 +/- 150.8512 +/- 151.2093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6 Purity 99%	(Lot SHBH3432V)	2,504.9 µg/mL	+/- 14.5636 +/- 151.1302 +/- 151.4890	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot MKBS7097V)	2,506.3 µg/mL	+/- 14.5716 +/- 151.2132 +/- 151.5722	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10185056)	2,501.6 µg/mL	+/- 14.5447 +/- 150.9341 +/- 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBD8459V)	2,502.9 µg/mL	+/- 14.5519 +/- 151.0095 +/- 151.3681	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	bromodichloromethane CAS # 75-27-4 Purity 97%	(Lot MKBW5506V)	2,506.8 µg/mL	+/- 14.5750 +/- 151.2490 +/- 151.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	2,508.5 µg/mL	+/- 14.5846 +/- 151.3489 +/- 151.7082	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot MKBP6041V)	2,500.8 µg/mL	+/- 14.5396 +/- 150.8817 +/- 151.2399	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBJ0332V)	2,501.9 µg/mL	+/- 14.5461 +/- 150.9492 +/- 151.3076	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBQ2165V)	2,501.1 µg/mL	+/- 14.5418 +/- 150.9040 +/- 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBW5554V)	2,500.6 µg/mL	+/- 14.5388 +/- 150.8738 +/- 151.2320	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBL7753V)	2,501.3 µg/mL	+/- 14.5425 +/- 150.9115 +/- 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,507.0 µg/mL	+/- 14.5759 +/- 151.2584 +/- 151.6175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ6229V)	2,500.8 µg/mL	+/- 14.5401 +/- 150.8866 +/- 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBR9260V)	2,505.4 µg/mL	+/- 14.5665 +/- 151.1604 +/- 151.5193	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBS2604V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBM5751V)	2,503.9 µg/mL	+/- 14.5577 +/- 151.0699 +/- 151.4285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS1350V)	2,509.9 µg/mL	+/- 14.5926 +/- 151.4319 +/- 151.7914	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JJV)	2,503.3 µg/mL	+/- 14.5541 +/- 151.0322 +/- 151.3907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBD7331V)	2,503.8 µg/mL	+/- 14.5570 +/- 151.0623 +/- 151.4210	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.0 µg/mL	+/- 14.5643 +/- 151.1378 +/- 151.4966	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBC5541V)	2,505.3 µg/mL	+/- 14.5657 +/- 151.1528 +/- 151.5117	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot J31X013)	2,506.5 µg/mL	+/- 14.5728 +/- 151.2266 +/- 151.5856	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBW2603V)	2,500.9 µg/mL	+/- 14.5403 +/- 150.8889 +/- 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,511.1 µg/mL	+/-	14.5999 µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	151.5073 µg/mL	Unstressed
	Purity 99%			+/-	151.8670 µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
60m x 0.25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

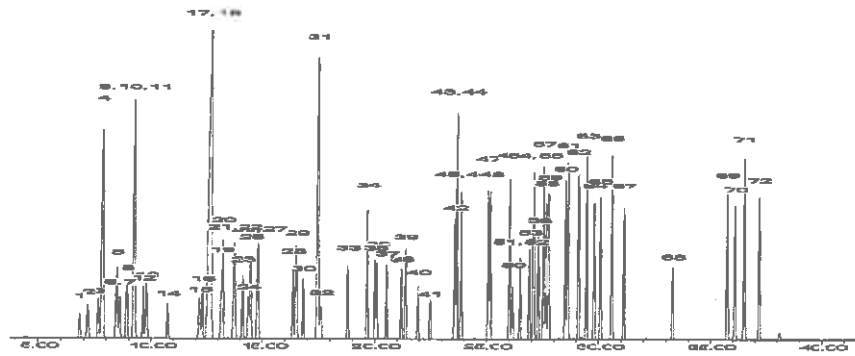
**Carrier Gas:**  
helium-constant pressure 30 psi

**Temp. Program:**  
40°C (hold 6 min.) to 240°C  
@ 6°C/min. (hold 10 min.)

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*F. Joseph Tallon*  
F. Joseph Tallon - Mix Technician

**Date Mixed:** 22-Dec-2016 **Balance:** B251644995

*Jennifer A. Pollino*  
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

Reagent

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**VOA8260MEGA2\_00060**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992.sec **Lot No.:** A0123775

**Description :** 8260 List 1 / Std #1 MegaMix (2017)  
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** December 31, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Diethyl ether (ethyl ether)	2,501.2 µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 60-29-7.SEC (Lot F23X068)		+/-	150.9088	µg/mL	Unstressed
	Purity 98%		+/-	151.2671	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,501.1 µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/-	150.9040	µg/mL	Unstressed
	Purity 99%		+/-	151.2622	µg/mL	Stressed
3	1,1-Dichloroethene	2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 2767000)		+/-	150.8662	µg/mL	Unstressed
	Purity 99%		+/-	151.2244	µg/mL	Stressed
4	tert-Butanol (TBA)	25,003.1 µg/mL	+/-	145.3626	µg/mL	Gravimetric
	CAS # 75-65-0.SEC (Lot XYXDO)		+/-	1,508.5475	µg/mL	Unstressed
	Purity 98%		+/-	1,512.1291	µg/mL	Stressed
5	Methyl acetate	5,000.4 µg/mL	+/-	29.0726	µg/mL	Gravimetric
	CAS # 79-20-9.SEC (Lot YDGVD)		+/-	301.6948	µg/mL	Unstressed
	Purity 99%		+/-	302.4111	µg/mL	Stressed
6	Iodomethane (methyl iodide)	2,500.4 µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/-	150.8587	µg/mL	Unstressed
	Purity 99%		+/-	151.2169	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.1 µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 107-05-1.SEC (Lot VEBOC)		+/-	150.8423	µg/mL	Unstressed
	Purity 98%		+/-	151.2004	µg/mL	Stressed

8	Methylene chloride (dichloromethane) CAS # 75-09-2.SEC (Lot FGM02) Purity 99%	2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
					150.8813	µg/mL	Unstressed
					151.2395	µg/mL	Stressed
9	Carbon disulfide CAS # 75-15-0.SEC (Lot MKBL1376V) Purity 99%	2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
					150.8889	µg/mL	Unstressed
					151.2471	µg/mL	Stressed
10	Acrylonitrile CAS # 107-13-1.SEC (Lot UERIL) Purity 99%	25,000.9	µg/mL	+/-	145.3496	µg/mL	Gravimetric
					1,508.4128	µg/mL	Unstressed
					1,511.9941	µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4.SEC (Lot ZAQTA-MS) Purity 99%	2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
					150.8361	µg/mL	Unstressed
					151.1942	µg/mL	Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2.SEC (Lot HGC01-BLKT) Purity 98%	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
					150.8792	µg/mL	Unstressed
					151.2374	µg/mL	Stressed
13	n-Hexane (C6) CAS # 110-54-3.SEC (Lot 10188491) Purity 99%	2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
					150.9266	µg/mL	Unstressed
					151.2849	µg/mL	Stressed
14	1,1-Dichloroethane CAS # 75-34-3.SEC (Lot 5379000) Purity 99%	2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
					150.8512	µg/mL	Unstressed
					151.2093	µg/mL	Stressed
15	2,2-Dichloropropane CAS # 594-20-7.SEC (Lot I7E8E) Purity 98%	2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
					150.8423	µg/mL	Unstressed
					151.2004	µg/mL	Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5.SEC (Lot TS5UB) Purity 97%	2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
					150.8466	µg/mL	Unstressed
					151.2048	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC (Lot 83NHH) Purity 99%	62,506.9	µg/mL	+/-	363.4014	µg/mL	Gravimetric
					3,771.3149	µg/mL	Unstressed
					3,780.2687	µg/mL	Stressed
18	Chloroform CAS # 67-66-3.SEC (Lot 1297547) Purity 99%	2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
					150.8436	µg/mL	Unstressed
					151.2017	µg/mL	Stressed
19	Bromochloromethane CAS # 74-97-5.SEC (Lot 5670200) Purity 99%	2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
					150.9040	µg/mL	Unstressed
					151.2622	µg/mL	Stressed
20	Tetrahydrofuran CAS # 109-99-9.SEC (Lot K3V7J-SJ) Purity 99%	5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
					301.8079	µg/mL	Unstressed
					302.5245	µg/mL	Stressed
21	1,1,1-Trichloroethane CAS # 71-55-6.SEC (Lot CS160712) Purity 98%	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
					150.8792	µg/mL	Unstressed
					151.2374	µg/mL	Stressed
22	Cyclohexane CAS # 110-82-7.SEC (Lot YADRA) Purity 99%	2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
					150.8964	µg/mL	Unstressed
					151.2547	µg/mL	Stressed
23	1,1-Dichloropropene CAS # 563-58-6.SEC (Lot 5221100) Purity 96%	2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
					150.9133	µg/mL	Unstressed
					151.2716	µg/mL	Stressed

24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot OGM01)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	2,500.1 µg/mL	+/-	14.5359 µg/mL 150.8436 µg/mL 151.2017 µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	2,501.5 µg/mL	+/-	14.5439 µg/mL 150.9266 µg/mL 151.2849 µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	2,501.0 µg/mL	+/-	14.5410 µg/mL 150.8964 µg/mL 151.2547 µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot 24MSD-CD)	2,500.9 µg/mL	+/-	14.5403 µg/mL 150.8889 µg/mL 151.2471 µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	2,501.1 µg/mL	+/-	14.5418 µg/mL 150.9040 µg/mL 151.2622 µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot MUFZH)	50,007.1 µg/mL	+/-	290.7305 µg/mL 3,017.1500 µg/mL 3,024.3132 µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	2,501.6 µg/mL	+/-	14.5447 µg/mL 150.9341 µg/mL 151.2925 µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 487OA)	2,500.1 µg/mL	+/-	14.5359 µg/mL 150.8436 µg/mL 151.2017 µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	2,500.0 µg/mL	+/-	14.5352 µg/mL 150.8361 µg/mL 151.1942 µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 5034600)	2,500.8 µg/mL	+/-	14.5401 µg/mL 150.8866 µg/mL 151.2448 µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	2,501.3 µg/mL	+/-	14.5425 µg/mL 150.9115 µg/mL 151.2698 µg/mL	Gravimetric Unstressed Stressed



40	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	2,500.4	µg/mL	+/- +/- +/-	14.5376 150.8613 151.2194	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 3505900)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	2,501.0	µg/mL	+/- +/- +/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot OUKMG-GB)	1,250.9	µg/mL	+/- +/- +/-	7.2727 75.4708 75.6500	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot GM01)	1,250.5	µg/mL	+/- +/- +/-	7.2705 75.4482 75.6273	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	2,501.1	µg/mL	+/- +/- +/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01-KTPK)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	2,500.4	µg/mL	+/- +/- +/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot 2PHXG-IH)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 5139000)	2,502.3	µg/mL	+/- +/- +/-	14.5483 150.9718 151.3303	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane CAS # 75-27-4.SEC Purity 98%	(Lot 13780)	2,500.1	µg/mL	+/- +/- +/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,1,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	(Lot CFA4D-AQ)	2,501.3	µg/mL	+/- +/- +/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	(Lot OGI01)	2,500.1	µg/mL	+/- +/- +/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 98%	(Lot 100700-3)	2,501.0	µg/mL	+/- +/- +/-	14.5408 150.8940 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC-IT)	2,500.0	µg/mL	+/- +/- +/-	14.5352 150.8361 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS #	108-86-1.SEC	(Lot 2FUHG-EM)		+/-	150.8436	µg/mL	Unstressed
	Purity	99%			+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS #	108-67-8.SEC	(Lot TOOOF)		+/-	150.8512	µg/mL	Unstressed
	Purity	99%			+/-	151.2093	µg/mL	Stressed
58	2-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS #	95-49-8.SEC	(Lot SW8QG-AO)		+/-	150.8889	µg/mL	Unstressed
	Purity	99%			+/-	151.2471	µg/mL	Stressed
59	4-Chlorotoluene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS #	106-43-4.SEC	(Lot P4XHJ-AO)		+/-	150.8662	µg/mL	Unstressed
	Purity	99%			+/-	151.2244	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS #	98-06-6.SEC	(Lot OGN01-CAI)		+/-	150.8436	µg/mL	Unstressed
	Purity	99%			+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS #	95-63-6.SEC	(Lot SC7LO-QA)		+/-	150.8587	µg/mL	Unstressed
	Purity	99%			+/-	151.2169	µg/mL	Stressed
62	sec-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS #	135-98-8.SEC	(Lot OGN01-IMA)		+/-	150.9190	µg/mL	Unstressed
	Purity	99%			+/-	151.2773	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS #	99-87-6.SEC	(Lot 5221800)		+/-	150.9115	µg/mL	Unstressed
	Purity	99%			+/-	151.2698	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS #	541-73-1.SEC	(Lot FMDFD)		+/-	150.8889	µg/mL	Unstressed
	Purity	99%			+/-	151.2471	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS #	106-46-7.SEC	(Lot 4Y5DC)		+/-	150.8813	µg/mL	Unstressed
	Purity	99%			+/-	151.2395	µg/mL	Stressed
66	n-Butylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS #	104-51-8.SEC	(Lot OGN01-PNP)		+/-	150.8813	µg/mL	Unstressed
	Purity	99%			+/-	151.2395	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS #	95-50-1.SEC	(Lot R6QDM)		+/-	150.8964	µg/mL	Unstressed
	Purity	99%			+/-	151.2547	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS #	96-12-8.SEC	(Lot LC00408V)		+/-	150.9236	µg/mL	Unstressed
	Purity	98%			+/-	151.2819	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS #	120-82-1.SEC	(Lot 3LYYC)		+/-	150.9869	µg/mL	Unstressed
	Purity	99%			+/-	151.3454	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.4	µg/mL	+/-	14.5433	µg/mL	Gravimetric
	CAS #	87-68-3.SEC	(Lot 5526800)		+/-	150.9198	µg/mL	Unstressed
	Purity	97%			+/-	151.2781	µg/mL	Stressed
71	Naphthalene		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS #	91-20-3.SEC	(Lot SKZ5N)		+/-	150.9417	µg/mL	Unstressed
	Purity	99%			+/-	151.3000	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**

60m x 0.25mm x 1.4µm  
 Rtx-502.2 (cat.#10916)

**Carrier Gas:**

helium-constant pressure 30 psi

**Temp. Program:**

40°C (hold 6 min.) to 240°C  
 @ 6°C/min. (hold 10 min.)

**Inj. Temp:**

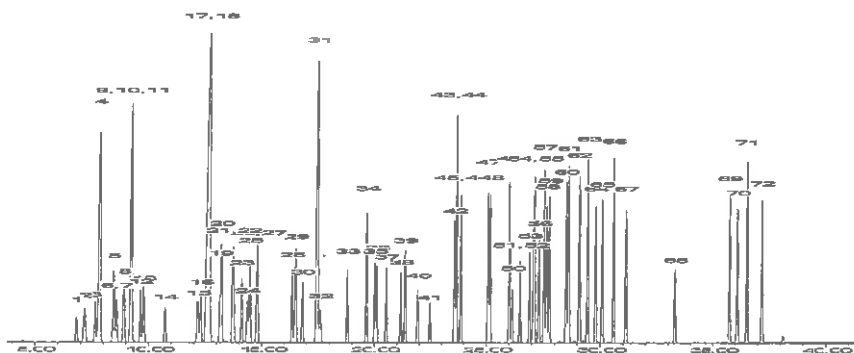
200°C

**Det. Temp:**

250°C

**Det. Type:**

MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Michael Mays*

**Date Mixed:** 28-Dec-2016      **Balance:** 1127510105

*Jennifer J Pollino*  
 Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008  
 Registered Quality System  
 Certificate #FM 80397

Reagent

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**VOA8260MEGA2\_00061**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: (800)356-1688  
 Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992.sec **Lot No.:** A0123775  
**Description :** 8260 List 1 / Std #1 MegaMix (2017)  
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Diethyl ether (ethyl ether)	2,501.2 µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 60-29-7.SEC (Lot F23X068)		+/-	150.9088	µg/mL	Unstressed
	Purity 98%		+/-	151.2671	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,501.1 µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/-	150.9040	µg/mL	Unstressed
	Purity 99%		+/-	151.2622	µg/mL	Stressed
3	1,1-Dichloroethene	2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 2767000)		+/-	150.8662	µg/mL	Unstressed
	Purity 99%		+/-	151.2244	µg/mL	Stressed
4	tert-Butanol (TBA)	25,003.1 µg/mL	+/-	145.3626	µg/mL	Gravimetric
	CAS # 75-65-0.SEC (Lot XYXDO)		+/-	1,508.5475	µg/mL	Unstressed
	Purity 98%		+/-	1,512.1291	µg/mL	Stressed
5	Methyl acetate	5,000.4 µg/mL	+/-	29.0726	µg/mL	Gravimetric
	CAS # 79-20-9.SEC (Lot YDGVD)		+/-	301.6948	µg/mL	Unstressed
	Purity 99%		+/-	302.4111	µg/mL	Stressed
6	Iodomethane (methyl iodide)	2,500.4 µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/-	150.8587	µg/mL	Unstressed
	Purity 99%		+/-	151.2169	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.1 µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 107-05-1.SEC (Lot VEBOC)		+/-	150.8423	µg/mL	Unstressed
	Purity 98%		+/-	151.2004	µg/mL	Stressed

8	Methylene chloride (dichloromethane)	2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)			+/-	150.8813	µg/mL	Unstressed
	Purity 99%			+/-	151.2395	µg/mL	Stressed
9	Carbon disulfide	2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS # 75-15-0.SEC (Lot MKBL1376V)			+/-	150.8889	µg/mL	Unstressed
	Purity 99%			+/-	151.2471	µg/mL	Stressed
10	Acrylonitrile	25,000.9	µg/mL	+/-	145.3496	µg/mL	Gravimetric
	CAS # 107-13-1.SEC (Lot UERIL)			+/-	1,508.4128	µg/mL	Unstressed
	Purity 99%			+/-	1,511.9941	µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE )	2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC (Lot ZAQTA-MS)			+/-	150.8361	µg/mL	Unstressed
	Purity 99%			+/-	151.1942	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot HGC01-BLKT)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed
13	n-Hexane (C6)	2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	CAS # 110-54-3.SEC (Lot 10188491)			+/-	150.9266	µg/mL	Unstressed
	Purity 99%			+/-	151.2849	µg/mL	Stressed
14	1,1-Dichloroethane	2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 5379000)			+/-	150.8512	µg/mL	Unstressed
	Purity 99%			+/-	151.2093	µg/mL	Stressed
15	2,2-Dichloropropane	2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)			+/-	150.8423	µg/mL	Unstressed
	Purity 98%			+/-	151.2004	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TS5UB)			+/-	150.8466	µg/mL	Unstressed
	Purity 97%			+/-	151.2048	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)	62,506.9	µg/mL	+/-	363.4014	µg/mL	Gravimetric
	CAS # 78-83-1.SEC (Lot 83NHH)			+/-	3,771.3149	µg/mL	Unstressed
	Purity 99%			+/-	3,780.2687	µg/mL	Stressed
18	Chloroform	2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)			+/-	150.8436	µg/mL	Unstressed
	Purity 99%			+/-	151.2017	µg/mL	Stressed
19	Bromochloromethane	2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 74-97-5.SEC (Lot 5670200)			+/-	150.9040	µg/mL	Unstressed
	Purity 99%			+/-	151.2622	µg/mL	Stressed
20	Tetrahydrofuran	5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	CAS # 109-99-9.SEC (Lot K3V7J-SJ)			+/-	301.8079	µg/mL	Unstressed
	Purity 99%			+/-	302.5245	µg/mL	Stressed
21	1,1,1-Trichloroethane	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 71-55-6.SEC (Lot CS160712)			+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed
22	Cyclohexane	2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS # 110-82-7.SEC (Lot YADRA)			+/-	150.8964	µg/mL	Unstressed
	Purity 99%			+/-	151.2547	µg/mL	Stressed
23	1,1-Dichloropropene	2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
	CAS # 563-58-6.SEC (Lot 5221100)			+/-	150.9133	µg/mL	Unstressed
	Purity 96%			+/-	151.2716	µg/mL	Stressed

24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot OGM01)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	2,500.1 µg/mL	+/-	14.5359 µg/mL 150.8436 µg/mL 151.2017 µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	2,501.5 µg/mL	+/-	14.5439 µg/mL 150.9266 µg/mL 151.2849 µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	2,501.0 µg/mL	+/-	14.5410 µg/mL 150.8964 µg/mL 151.2547 µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot 24MSD-CD)	2,500.9 µg/mL	+/-	14.5403 µg/mL 150.8889 µg/mL 151.2471 µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	2,501.1 µg/mL	+/-	14.5418 µg/mL 150.9040 µg/mL 151.2622 µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot MUFZH)	50,007.1 µg/mL	+/-	290.7305 µg/mL 3,017.1500 µg/mL 3,024.3132 µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	2,501.6 µg/mL	+/-	14.5447 µg/mL 150.9341 µg/mL 151.2925 µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 487OA)	2,500.1 µg/mL	+/-	14.5359 µg/mL 150.8436 µg/mL 151.2017 µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	2,500.0 µg/mL	+/-	14.5352 µg/mL 150.8361 µg/mL 151.1942 µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 5034600)	2,500.8 µg/mL	+/-	14.5401 µg/mL 150.8866 µg/mL 151.2448 µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	2,500.5 µg/mL	+/-	14.5381 µg/mL 150.8662 µg/mL 151.2244 µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	2,501.3 µg/mL	+/-	14.5425 µg/mL 150.9115 µg/mL 151.2698 µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	2,500.4	µg/mL	+/- +/- +/-	14.5376 150.8613 151.2194	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 3505900)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	2,501.0	µg/mL	+/- +/- +/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot OUKMG-GB)	1,250.9	µg/mL	+/- +/- +/-	7.2727 75.4708 75.6500	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot GM01)	1,250.5	µg/mL	+/- +/- +/-	7.2705 75.4482 75.6273	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	2,501.1	µg/mL	+/- +/- +/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01-KTPK)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	2,500.4	µg/mL	+/- +/- +/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot 2PHXG-IH)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 5139000)	2,502.3	µg/mL	+/- +/- +/-	14.5483 150.9718 151.3303	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane CAS # 75-27-4.SEC Purity 98%	(Lot 13780)	2,500.1	µg/mL	+/- +/- +/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,1,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	(Lot CFA4D-AQ)	2,501.3	µg/mL	+/- +/- +/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	(Lot OGI01)	2,500.1	µg/mL	+/- +/- +/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 98%	(Lot 100700-3)	2,501.0	µg/mL	+/- +/- +/-	14.5408 150.8940 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC-IT)	2,500.0	µg/mL	+/- +/- +/-	14.5352 150.8361 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS #	108-86-1.SEC	(Lot 2FUHG-EM)		+/-	150.8436	µg/mL	Unstressed
	Purity	99%			+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS #	108-67-8.SEC	(Lot TOOOF)		+/-	150.8512	µg/mL	Unstressed
	Purity	99%			+/-	151.2093	µg/mL	Stressed
58	2-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS #	95-49-8.SEC	(Lot SW8QG-AO)		+/-	150.8889	µg/mL	Unstressed
	Purity	99%			+/-	151.2471	µg/mL	Stressed
59	4-Chlorotoluene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS #	106-43-4.SEC	(Lot P4XHJ-AO)		+/-	150.8662	µg/mL	Unstressed
	Purity	99%			+/-	151.2244	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS #	98-06-6.SEC	(Lot OGN01-CAI)		+/-	150.8436	µg/mL	Unstressed
	Purity	99%			+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS #	95-63-6.SEC	(Lot SC7LO-QA)		+/-	150.8587	µg/mL	Unstressed
	Purity	99%			+/-	151.2169	µg/mL	Stressed
62	sec-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS #	135-98-8.SEC	(Lot OGN01-IMA)		+/-	150.9190	µg/mL	Unstressed
	Purity	99%			+/-	151.2773	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS #	99-87-6.SEC	(Lot 5221800)		+/-	150.9115	µg/mL	Unstressed
	Purity	99%			+/-	151.2698	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS #	541-73-1.SEC	(Lot FMDFD)		+/-	150.8889	µg/mL	Unstressed
	Purity	99%			+/-	151.2471	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS #	106-46-7.SEC	(Lot 4Y5DC)		+/-	150.8813	µg/mL	Unstressed
	Purity	99%			+/-	151.2395	µg/mL	Stressed
66	n-Butylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS #	104-51-8.SEC	(Lot OGN01-PNP)		+/-	150.8813	µg/mL	Unstressed
	Purity	99%			+/-	151.2395	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS #	95-50-1.SEC	(Lot R6QDM)		+/-	150.8964	µg/mL	Unstressed
	Purity	99%			+/-	151.2547	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS #	96-12-8.SEC	(Lot LC00408V)		+/-	150.9236	µg/mL	Unstressed
	Purity	98%			+/-	151.2819	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS #	120-82-1.SEC	(Lot 3LYYC)		+/-	150.9869	µg/mL	Unstressed
	Purity	99%			+/-	151.3454	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.4	µg/mL	+/-	14.5433	µg/mL	Gravimetric
	CAS #	87-68-3.SEC	(Lot 5526800)		+/-	150.9198	µg/mL	Unstressed
	Purity	97%			+/-	151.2781	µg/mL	Stressed
71	Naphthalene		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS #	91-20-3.SEC	(Lot SKZ5N)		+/-	150.9417	µg/mL	Unstressed
	Purity	99%			+/-	151.3000	µg/mL	Stressed

72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
60m x 0.25mm x 1.4µm  
Rtx-502.2 (cat.#10916)

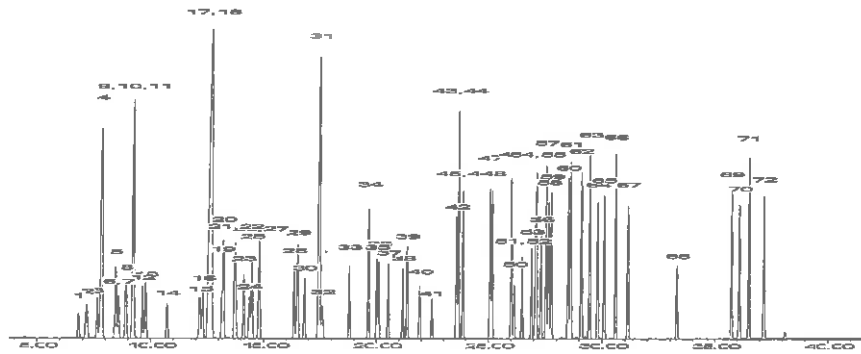
**Carrier Gas:**  
helium-constant pressure 30 psi

**Temp. Program:**  
40°C (hold 6 min.) to 240°C  
@ 6°C/min. (hold 10 min.)

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

**Det. Type:**  
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Michael Mays*

**Date Mixed:** 28-Dec-2016      **Balance:** 1127510105

*Jennifer J Pollino*  
Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008  
Registered Quality System  
Certificate #FM 80397

Reagent

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**VOA8260MEGA2\_00063**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: (800)356-1688  
 Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992.sec **Lot No.:** A0123775  
**Description :** 8260 List 1 / Std #1 MegaMix (2017)  
8260 List 1 / Std #1 MegaMix (2017) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** December 31, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Diethyl ether (ethyl ether)	2,501.2 µg/mL	+/-	14.5422	µg/mL	Gravimetric
	CAS # 60-29-7.SEC (Lot F23X068)		+/-	150.9088	µg/mL	Unstressed
	Purity 98%		+/-	151.2671	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,501.1 µg/mL	+/-	14.5418	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/-	150.9040	µg/mL	Unstressed
	Purity 99%		+/-	151.2622	µg/mL	Stressed
3	1,1-Dichloroethene	2,500.5 µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 2767000)		+/-	150.8662	µg/mL	Unstressed
	Purity 99%		+/-	151.2244	µg/mL	Stressed
4	tert-Butanol (TBA)	25,003.1 µg/mL	+/-	145.3626	µg/mL	Gravimetric
	CAS # 75-65-0.SEC (Lot XYXDO)		+/-	1,508.5475	µg/mL	Unstressed
	Purity 98%		+/-	1,512.1291	µg/mL	Stressed
5	Methyl acetate	5,000.4 µg/mL	+/-	29.0726	µg/mL	Gravimetric
	CAS # 79-20-9.SEC (Lot YDGVD)		+/-	301.6948	µg/mL	Unstressed
	Purity 99%		+/-	302.4111	µg/mL	Stressed
6	Iodomethane (methyl iodide)	2,500.4 µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/-	150.8587	µg/mL	Unstressed
	Purity 99%		+/-	151.2169	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.1 µg/mL	+/-	14.5358	µg/mL	Gravimetric
	CAS # 107-05-1.SEC (Lot VEBOC)		+/-	150.8423	µg/mL	Unstressed
	Purity 98%		+/-	151.2004	µg/mL	Stressed

8	Methylene chloride (dichloromethane) CAS # 75-09-2.SEC (Lot FGM02) Purity 99%	2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
				+/-	150.8813	µg/mL	Unstressed
				+/-	151.2395	µg/mL	Stressed
9	Carbon disulfide CAS # 75-15-0.SEC (Lot MKBL1376V) Purity 99%	2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
				+/-	150.8889	µg/mL	Unstressed
				+/-	151.2471	µg/mL	Stressed
10	Acrylonitrile CAS # 107-13-1.SEC (Lot UERIL) Purity 99%	25,000.9	µg/mL	+/-	145.3496	µg/mL	Gravimetric
				+/-	1,508.4128	µg/mL	Unstressed
				+/-	1,511.9941	µg/mL	Stressed
11	Methyl-tert-butyl ether ( MTBE ) CAS # 1634-04-4.SEC (Lot ZAQTA-MS) Purity 99%	2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
				+/-	150.8361	µg/mL	Unstressed
				+/-	151.1942	µg/mL	Stressed
12	cis-1,2-Dichloroethene CAS # 156-59-2.SEC (Lot HGC01-BLKT) Purity 98%	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
				+/-	150.8792	µg/mL	Unstressed
				+/-	151.2374	µg/mL	Stressed
13	n-Hexane (C6) CAS # 110-54-3.SEC (Lot 10188491) Purity 99%	2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
				+/-	150.9266	µg/mL	Unstressed
				+/-	151.2849	µg/mL	Stressed
14	1,1-Dichloroethane CAS # 75-34-3.SEC (Lot 5379000) Purity 99%	2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
				+/-	150.8512	µg/mL	Unstressed
				+/-	151.2093	µg/mL	Stressed
15	2,2-Dichloropropane CAS # 594-20-7.SEC (Lot I7E8E) Purity 98%	2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
				+/-	150.8423	µg/mL	Unstressed
				+/-	151.2004	µg/mL	Stressed
16	trans-1,2-Dichloroethene CAS # 156-60-5.SEC (Lot TS5UB) Purity 97%	2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
				+/-	150.8466	µg/mL	Unstressed
				+/-	151.2048	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC (Lot 83NHH) Purity 99%	62,506.9	µg/mL	+/-	363.4014	µg/mL	Gravimetric
				+/-	3,771.3149	µg/mL	Unstressed
				+/-	3,780.2687	µg/mL	Stressed
18	Chloroform CAS # 67-66-3.SEC (Lot 1297547) Purity 99%	2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
				+/-	150.8436	µg/mL	Unstressed
				+/-	151.2017	µg/mL	Stressed
19	Bromochloromethane CAS # 74-97-5.SEC (Lot 5670200) Purity 99%	2,501.1	µg/mL	+/-	14.5418	µg/mL	Gravimetric
				+/-	150.9040	µg/mL	Unstressed
				+/-	151.2622	µg/mL	Stressed
20	Tetrahydrofuran CAS # 109-99-9.SEC (Lot K3V7J-SJ) Purity 99%	5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
				+/-	301.8079	µg/mL	Unstressed
				+/-	302.5245	µg/mL	Stressed
21	1,1,1-Trichloroethane CAS # 71-55-6.SEC (Lot CS160712) Purity 98%	2,500.7	µg/mL	+/-	14.5394	µg/mL	Gravimetric
				+/-	150.8792	µg/mL	Unstressed
				+/-	151.2374	µg/mL	Stressed
22	Cyclohexane CAS # 110-82-7.SEC (Lot YADRA) Purity 99%	2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
				+/-	150.8964	µg/mL	Unstressed
				+/-	151.2547	µg/mL	Stressed
23	1,1-Dichloropropene CAS # 563-58-6.SEC (Lot 5221100) Purity 96%	2,501.3	µg/mL	+/-	14.5427	µg/mL	Gravimetric
				+/-	150.9133	µg/mL	Unstressed
				+/-	151.2716	µg/mL	Stressed

24	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	2,500.5 µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot OGM01)	2,500.5 µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	2,500.1 µg/mL	+/-	14.5359 150.8436 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	2,501.5 µg/mL	+/-	14.5439 150.9266 151.2849	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	2,501.0 µg/mL	+/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot 24MSD-CD)	2,500.9 µg/mL	+/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	2,501.1 µg/mL	+/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot MUFZH)	50,007.1 µg/mL	+/-	290.7305 3,017.1500 3,024.3132	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	2,501.6 µg/mL	+/-	14.5447 150.9341 151.2925	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 487OA)	2,500.1 µg/mL	+/-	14.5359 150.8436 151.2017	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	2,500.0 µg/mL	+/-	14.5352 150.8361 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	2,500.5 µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	2,500.5 µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 5034600)	2,500.8 µg/mL	+/-	14.5401 150.8866 151.2448	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	2,500.5 µg/mL	+/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	2,501.3 µg/mL	+/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	2,500.4	µg/mL	+/- +/- +/-	14.5376 150.8613 151.2194	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 3505900)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	2,501.0	µg/mL	+/- +/- +/-	14.5410 150.8964 151.2547	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot OUKMG-GB)	1,250.9	µg/mL	+/- +/- +/-	7.2727 75.4708 75.6500	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot GM01)	1,250.5	µg/mL	+/- +/- +/-	7.2705 75.4482 75.6273	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	2,501.1	µg/mL	+/- +/- +/-	14.5418 150.9040 151.2622	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01-KTPK)	2,500.9	µg/mL	+/- +/- +/-	14.5403 150.8889 151.2471	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	2,500.4	µg/mL	+/- +/- +/-	14.5374 150.8587 151.2169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot 2PHXG-IH)	2,500.5	µg/mL	+/- +/- +/-	14.5381 150.8662 151.2244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 5139000)	2,502.3	µg/mL	+/- +/- +/-	14.5483 150.9718 151.3303	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	Bromodichloromethane CAS # 75-27-4.SEC Purity 98%	(Lot 13780)	2,500.1	µg/mL	+/- +/- +/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,1,1,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	(Lot CFA4D-AQ)	2,501.3	µg/mL	+/- +/- +/-	14.5425 150.9115 151.2698	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	(Lot OGI01)	2,500.1	µg/mL	+/- +/- +/-	14.5358 150.8423 151.2004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 98%	(Lot 100700-3)	2,501.0	µg/mL	+/- +/- +/-	14.5408 150.8940 151.2522	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC-IT)	2,500.0	µg/mL	+/- +/- +/-	14.5352 150.8361 151.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS #	108-86-1.SEC	(Lot 2FUHG-EM)		+/-	150.8436	µg/mL	Unstressed
	Purity	99%			+/-	151.2017	µg/mL	Stressed
57	1,3,5-Trimethylbenzene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	CAS #	108-67-8.SEC	(Lot TOOOF)		+/-	150.8512	µg/mL	Unstressed
	Purity	99%			+/-	151.2093	µg/mL	Stressed
58	2-Chlorotoluene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS #	95-49-8.SEC	(Lot SW8QG-AO)		+/-	150.8889	µg/mL	Unstressed
	Purity	99%			+/-	151.2471	µg/mL	Stressed
59	4-Chlorotoluene		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	CAS #	106-43-4.SEC	(Lot P4XHJ-AO)		+/-	150.8662	µg/mL	Unstressed
	Purity	99%			+/-	151.2244	µg/mL	Stressed
60	tert-Butylbenzene		2,500.1	µg/mL	+/-	14.5359	µg/mL	Gravimetric
	CAS #	98-06-6.SEC	(Lot OGN01-CAI)		+/-	150.8436	µg/mL	Unstressed
	Purity	99%			+/-	151.2017	µg/mL	Stressed
61	1,2,4-Trimethylbenzene		2,500.4	µg/mL	+/-	14.5374	µg/mL	Gravimetric
	CAS #	95-63-6.SEC	(Lot SC7LO-QA)		+/-	150.8587	µg/mL	Unstressed
	Purity	99%			+/-	151.2169	µg/mL	Stressed
62	sec-Butylbenzene		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	CAS #	135-98-8.SEC	(Lot OGN01-IMA)		+/-	150.9190	µg/mL	Unstressed
	Purity	99%			+/-	151.2773	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)		2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
	CAS #	99-87-6.SEC	(Lot 5221800)		+/-	150.9115	µg/mL	Unstressed
	Purity	99%			+/-	151.2698	µg/mL	Stressed
64	1,3-Dichlorobenzene		2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
	CAS #	541-73-1.SEC	(Lot FMDFD)		+/-	150.8889	µg/mL	Unstressed
	Purity	99%			+/-	151.2471	µg/mL	Stressed
65	1,4-Dichlorobenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS #	106-46-7.SEC	(Lot 4Y5DC)		+/-	150.8813	µg/mL	Unstressed
	Purity	99%			+/-	151.2395	µg/mL	Stressed
66	n-Butylbenzene		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	CAS #	104-51-8.SEC	(Lot OGN01-PNP)		+/-	150.8813	µg/mL	Unstressed
	Purity	99%			+/-	151.2395	µg/mL	Stressed
67	1,2-Dichlorobenzene		2,501.0	µg/mL	+/-	14.5410	µg/mL	Gravimetric
	CAS #	95-50-1.SEC	(Lot R6QDM)		+/-	150.8964	µg/mL	Unstressed
	Purity	99%			+/-	151.2547	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane		2,501.5	µg/mL	+/-	14.5436	µg/mL	Gravimetric
	CAS #	96-12-8.SEC	(Lot LC00408V)		+/-	150.9236	µg/mL	Unstressed
	Purity	98%			+/-	151.2819	µg/mL	Stressed
69	1,2,4-Trichlorobenzene		2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
	CAS #	120-82-1.SEC	(Lot 3LYYC)		+/-	150.9869	µg/mL	Unstressed
	Purity	99%			+/-	151.3454	µg/mL	Stressed
70	Hexachlorobutadiene		2,501.4	µg/mL	+/-	14.5433	µg/mL	Gravimetric
	CAS #	87-68-3.SEC	(Lot 5526800)		+/-	150.9198	µg/mL	Unstressed
	Purity	97%			+/-	151.2781	µg/mL	Stressed
71	Naphthalene		2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
	CAS #	91-20-3.SEC	(Lot SKZ5N)		+/-	150.9417	µg/mL	Unstressed
	Purity	99%			+/-	151.3000	µg/mL	Stressed



72	1,2,3-Trichlorobenzene		2,500.7 µg/mL	+/-	14.5394	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)		+/-	150.8792	µg/mL	Unstressed
	Purity 98%			+/-	151.2374	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

**Column:**  
 60m x 0.25mm x 1.4µm  
 Rtx-502.2 (cat.#10916)

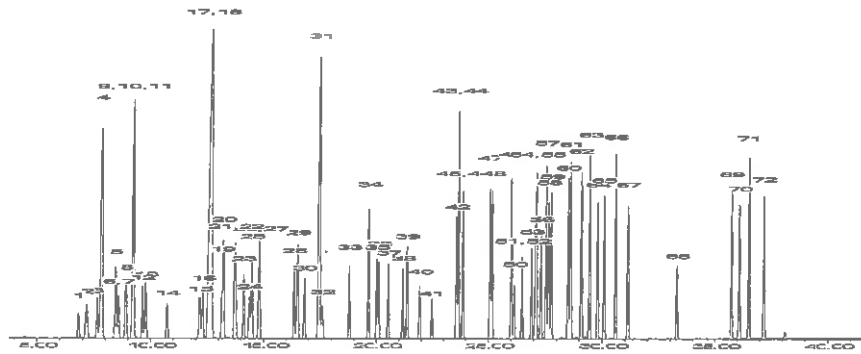
**Carrier Gas:**  
 helium-constant pressure 30 psi

**Temp. Program:**  
 40°C (hold 6 min.) to 240°C  
 @ 6°C/min. (hold 10 min.)

**Inj. Temp:**  
 200°C

**Det. Temp:**  
 250°C

**Det. Type:**  
 MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

*Michael Mays*

**Date Mixed:** 28-Dec-2016      **Balance:** 1127510105

*Jennifer J Pollino*  
 Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 04-Jan-2017

Manufactured under Restek's ISO 9001:2008  
 Registered Quality System  
 Certificate #FM 80397

Reagent

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**VOA8260SURRES\_00118**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567650 Lot No.: A0114901  
 Description : 8260 Surrogate Standard  
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul  
 Container Size : 5 mL Pkg Amt: > 5 mL  
 Expiration Date : October 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Dibromofluoromethane	2,509.4 µg/mL (Lot 022012)	+/-	14.5899	µg/mL	Gravimetric
	CAS # 1868-53-7		+/-	140.6996	µg/mL	Unstressed
	Purity 99%		+/-	143.9918	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,509.0 µg/mL (Lot PR-25433)	+/-	14.5875	µg/mL	Gravimetric
	CAS # 17060-07-0		+/-	140.6769	µg/mL	Unstressed
	Purity 98%		+/-	143.9686	µg/mL	Stressed
3	Toluene-d8	2,507.0 µg/mL (Lot PR-26282)	+/-	14.5759	µg/mL	Gravimetric
	CAS # 2037-26-5		+/-	140.5650	µg/mL	Unstressed
	Purity 99%		+/-	143.8540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,503.6 µg/mL (Lot 20401KOV)	+/-	14.5561	µg/mL	Gravimetric
	CAS # 460-00-4		+/-	140.3744	µg/mL	Unstressed
	Purity 99%		+/-	143.6590	µg/mL	Stressed

Solvent: P&T Methanol  
 CAS # 67-56-1  
 Purity 99%

Reagent

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**VOA8260SURRES\_00126**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
 Bellefonte, PA 16823-8812  
 Tel: (800)356-1688  
 Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

Catalog No. : 567650 Lot No.: A0114901  
 Description : 8260 Surrogate Standard  
8260 Surrogate Standard 2,500 ug/ml, P&T Methanol, 5 ml/ampul  
 Container Size : 5 mL Pkg Amt: > 5 mL  
 Expiration Date : October 31, 2020 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Dibromofluoromethane	2,509.4 µg/mL (Lot 022012)	+/-	14.5899	µg/mL	Gravimetric
	CAS # 1868-53-7		+/-	140.6996	µg/mL	Unstressed
	Purity 99%		+/-	143.9918	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,509.0 µg/mL (Lot PR-25433)	+/-	14.5875	µg/mL	Gravimetric
	CAS # 17060-07-0		+/-	140.6769	µg/mL	Unstressed
	Purity 98%		+/-	143.9686	µg/mL	Stressed
3	Toluene-d8	2,507.0 µg/mL (Lot PR-26282)	+/-	14.5759	µg/mL	Gravimetric
	CAS # 2037-26-5		+/-	140.5650	µg/mL	Unstressed
	Purity 99%		+/-	143.8540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,503.6 µg/mL (Lot 20401KOV)	+/-	14.5561	µg/mL	Gravimetric
	CAS # 460-00-4		+/-	140.3744	µg/mL	Unstressed
	Purity 99%		+/-	143.6590	µg/mL	Stressed

Solvent: P&T Methanol  
 CAS # 67-56-1  
 Purity 99%

Reagent

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**VOA8260VARES\_00081**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569724 **Lot No.:** A0124520

**Description :** 8260 List 1 / Std #6 Vinyl Acetate (2015)  
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2017 **Storage:** 0°C or colder

**Handling:** This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate CAS # 108-05-4 Purity 99% (Lot STBD7333V)	5,027.0 µg/mL	+/- 29.5013	µg/mL	Gravimetric
			+/- 303.3277	µg/mL	Unstressed
			+/- 304.0477	µg/mL	Stressed

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

#### Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

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**VOA8260VARES\_00083**





# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569724 **Lot No.:** A0124520

**Description :** 8260 List 1 / Std #6 Vinyl Acetate (2015)  
8260 List 1 / Std #6 Vinyl Acetate (2015) 5000 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** July 31, 2017 **Storage:** 0°C or colder

**Handling:** This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate CAS # 108-05-4 Purity 99% (Lot STBD7333V)	5,027.0 µg/mL	+/- 29.5013	µg/mL	Gravimetric
			+/- 303.3277	µg/mL	Unstressed
			+/- 304.0477	µg/mL	Stressed

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

#### Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Reagent

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**VOAACRORES\_00113**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Belleville, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568720 **Lot No.:** A0125560

**Description :** 8260 List 1/Std #5 Acrolein High  
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2017 **Storage:** 0°C or colder

**Handling:** This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 170123JLM)	19,779.0 µg/mL	+/- 115.8104 µg/mL Gravimetric +/- 634.1769 µg/mL Unstressed +/- 737.1613 µg/mL Stressed

**Solvent:** Water  
CAS # 7732-18-5  
Purity 99%

Reagent

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**VOAACRORES\_00115**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Belleville, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568720 **Lot No.:** A0125560

**Description :** 8260 List 1/Std #5 Acrolein High  
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2017 **Storage:** 0°C or colder

**Handling:** This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 170123JLM)	19,779.0 µg/mL	+/- 115.8104 µg/mL Gravimetric +/- 634.1769 µg/mL Unstressed +/- 737.1613 µg/mL Stressed

**Solvent:** Water  
CAS # 7732-18-5  
Purity 99%

Reagent

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**VOACEVERES\_00124**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569723 **Lot No.:** A0123891

**Description :** 8260 List 1 / Std #4 2-CEVE (2015)  
8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether CAS # 110-75-8 Purity 98% (Lot MKBS6526V)	2,503.5 µg/mL	+/- 14.5556	µg/mL	Gravimetric
			+/- 53.6004	µg/mL	Unstressed
			+/- 55.1587	µg/mL	Stressed

**Solvent:** P&T Methanol  
**CAS #** 67-56-1  
**Purity** 99%

#### Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

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**VOACEVERES\_00127**





# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569723 **Lot No.:** A0123891

**Description :** 8260 List 1 / Std #4 2-CEVE (2015)  
8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2020 **Storage:** 0°C or colder

2406027  
28  
29  
30

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	2-Chloroethyl vinyl ether CAS # 110-75-8 Purity 98% (Lot MKBS6526V)	2,503.5 µg/mL	+/- 14.5556	µg/mL	Gravimetric	
			+/- 53.6004	µg/mL	Unstressed	
			+/- 55.1587	µg/mL	Stressed	

**Solvent:** P&T Methanol  
CAS # 67-56-1  
Purity 99%

#### Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

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**VOARESEE1ST\_00038**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568363-FL **Lot No.:** A0120234

**Description :** Custom EE Standard  
Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	3-Chlorobenzotrifluoride CAS # 98-15-7 Purity 99% (Lot 21324DO)	5,025.0 µg/mL	+/-	29.4895	µg/mL Gravimetric
			+/-	281.7753	µg/mL Unstressed
			+/-	288.3671	µg/mL Stressed
2	4-Chlorobenzotrifluoride CAS # 98-56-6 Purity 99% (Lot 08507BO)	5,031.0 µg/mL	+/-	29.5247	µg/mL Gravimetric
			+/-	282.1117	µg/mL Unstressed
			+/-	288.7115	µg/mL Stressed
3	2-Chlorobenzotrifluoride CAS # 88-16-4 Purity 99% (Lot I0316DQ)	5,011.0 µg/mL	+/-	29.4074	µg/mL Gravimetric
			+/-	280.9902	µg/mL Unstressed
			+/-	287.5637	µg/mL Stressed
4	3-Chlorotoluene CAS # 108-41-8 Purity 99% (Lot 13528LX)	5,046.0 µg/mL	+/-	29.6128	µg/mL Gravimetric
			+/-	282.9528	µg/mL Unstressed
			+/-	289.5723	µg/mL Stressed
5	2,4-Dichlorobenzotrifluoride CAS # 320-60-5 Purity 99% (Lot MKBL3552V)	5,018.0 µg/mL	+/-	29.4484	µg/mL Gravimetric
			+/-	281.3828	µg/mL Unstressed
			+/-	287.9654	µg/mL Stressed
6	3,4-Dichlorobenzotrifluoride CAS # 328-84-7 Purity 99% (Lot 11105EJV)	5,031.0 µg/mL	+/-	29.5247	µg/mL Gravimetric
			+/-	282.1117	µg/mL Unstressed
			+/-	288.7115	µg/mL Stressed
7	2,5-Dichlorobenzotrifluoride CAS # 320-50-3 Purity 99% (Lot 04415DSV)	5,047.0 µg/mL	+/-	29.6186	µg/mL Gravimetric
			+/-	283.0089	µg/mL Unstressed
			+/-	289.6296	µg/mL Stressed

8	2,4-Dichlorotoluene	(Lot 4194700)	5,036.0	µg/mL	+/-	29.5541	µg/mL	Gravimetric	
	CAS # 95-73-8					282.3921			Unstressed
	Purity 99%					288.9984			
9	2,5-Dichlorotoluene	(Lot 1381346V)	5,016.0	µg/mL	+/-	29.4367	µg/mL	Gravimetric	
	CAS # 19398-61-9					281.2706			Unstressed
	Purity 99%					287.8507			
10	2,6-Dichlorotoluene	(Lot MKBG8583V)	5,027.0	µg/mL	+/-	29.5013	µg/mL	Gravimetric	
	CAS # 118-69-4					281.8874			Unstressed
	Purity 99%					288.4819			
11	3,4-Dichlorotoluene	(Lot 09419AS)	5,021.0	µg/mL	+/-	29.4660	µg/mL	Gravimetric	
	CAS # 95-75-0					281.5510			Unstressed
	Purity 99%					288.1376			
12	2,3-Dichlorotoluene	(Lot 41215)	5,031.0	µg/mL	+/-	29.5247	µg/mL	Gravimetric	
	CAS # 32768-54-0					282.1117			Unstressed
	Purity 99%					288.7115			
13	2,4,5-Trichlorotoluene	(Lot 5150700)	5,041.0	µg/mL	+/-	29.5834	µg/mL	Gravimetric	
	CAS # 6639-30-1					282.6725			Unstressed
	Purity 99%					289.2853			
14	2,3,6-Trichlorotoluene	(Lot NT054179)	5,003.0	µg/mL	+/-	29.3604	µg/mL	Gravimetric	
	CAS # 2077-46-5					280.5416			Unstressed
	Purity 99%					287.1046			
<b>Solvent:</b>	P&T Methanol								
	CAS # 67-56-1								
	Purity 99%								

Reagent

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**VOARESEE1ST\_00045**



# CERTIFIED REFERENCE MATERIAL

110 Benner Circle  
Bellefonte, PA 16823-8812  
Tel: (800)356-1688  
Fax: (814)353-1309

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## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

2396751

Catalog No. : 568363-FL Lot No.: A0120234

Description : Custom EE Standard

Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : January 31, 2018 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	3-Chlorobenzotrifluoride	5,025.0 µg/mL (Lot 21324DO)	+/-	29.4895	µg/mL	Gravimetric
	CAS # 98-15-7		+/-	281.7753	µg/mL	Unstressed
	Purity 99%		+/-	288.3671	µg/mL	Stressed
2	4-Chlorobenzotrifluoride	5,031.0 µg/mL (Lot 08507BO)	+/-	29.5247	µg/mL	Gravimetric
	CAS # 98-56-6		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
3	2-Chlorobenzotrifluoride	5,011.0 µg/mL (Lot I0316DQ)	+/-	29.4074	µg/mL	Gravimetric
	CAS # 88-16-4		+/-	280.9902	µg/mL	Unstressed
	Purity 99%		+/-	287.5637	µg/mL	Stressed
4	3-Chlorotoluene	5,046.0 µg/mL (Lot 13528LX)	+/-	29.6128	µg/mL	Gravimetric
	CAS # 108-41-8		+/-	282.9528	µg/mL	Unstressed
	Purity 99%		+/-	289.5723	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride	5,018.0 µg/mL (Lot MKBL3552V)	+/-	29.4484	µg/mL	Gravimetric
	CAS # 320-60-5		+/-	281.3828	µg/mL	Unstressed
	Purity 99%		+/-	287.9654	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride	5,031.0 µg/mL (Lot 11105EJV)	+/-	29.5247	µg/mL	Gravimetric
	CAS # 328-84-7		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride	5,047.0 µg/mL (Lot 04415DSV)	+/-	29.6186	µg/mL	Gravimetric
	CAS # 320-50-3		+/-	283.0089	µg/mL	Unstressed
	Purity 99%		+/-	289.6296	µg/mL	Stressed

# Method 8260C Low Level

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Volatile Organic Compounds (GC/MS)  
by Method 8260C Low Level

FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water

Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-109D-0/1-0	180-69061-1	93	95	89	106
HD-MW-175-0/1-0	180-69061-2	97	99	87	109
HD-MW-164-0/1-0	180-69061-3	97	99	89	104
HD-MW-169-0/1-0	180-69061-4	97	100	86	103
HD-MW-170-0/1-0	180-69061-5	98	99	88	103
HD-MW-174-0/1-0	180-69061-6	101	98	86	100
HD-MW-167-0/1-0	180-69061-7	99	101	85	100
HD-MW-166-0/1-0	180-69061-9	101	103	86	103
HD-MW-168-0/1-0	180-69061-10	98	99	84	100
HD-MW-141A-0/1-0	180-69061-11	104	103	87	105
HD-MW-171-0/1-0	180-69061-12	100	101	87	103
HD-QC1-0/1-4	180-69061-13	99	99	84	103
HD-QC1-0/1-3	180-69061-14	97	98	83	103
HD-QC1-0/1-2	180-69061-15	97	100	86	104
HD-MW-172-0/1-0	180-69061-16	99	100	86	104
HD-MW-173-0/1-0	180-69061-17	102	99	86	99
HD-MW-108D-0/1-0	180-69061-18	101	100	85	103
HD-MW-108S-0/1-0	180-69061-19	100	104	85	103
HD-MW-64S-0/1-0	180-69061-20	104	102	85	105
HD-MW-64D-0/1-0	180-69061-22	103	107	91	99
HD-MW-64D-0/1-0 DL	180-69061-22 DL	101	100	86	103
HD-MW-161-0/1-0	180-69061-23	104	104	82	102
HD-MW-161-0/1-0 DL	180-69061-23 DL	101	104	91	100
HD-MW-163-0/1-0	180-69061-24	99	102	88	99
HD-MW-110-0/1-0	180-69061-25	98	99	85	102
HD-MW-109S-0/1-0	180-69061-26	96	101	91	101
HD-QC1-0/1-1	180-69061-27	104	105	85	104
HD-QC1-0/1-1 DL	180-69061-27 DL	97	104	89	98
HD-MW-162-0/1-0	180-69061-28	101	103	93	100
	MB 180-219487/5	99	99	85	103
	MB 180-219617/5	100	98	86	103
	MB 180-219759/7	98	101	84	103
	MB 180-220320/6	98	103	91	98
	LCS 180-219487/3	87	91	101	103
	LCS 180-219617/3	91	97	103	101

QC LIMITS

DBFM = Dibromofluoromethane (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)

73-120  
65-121  
73-120  
80-120

# Column to be used to flag recovery values



FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	LCS 180-219759/4	99	99	107	105
	LCS 180-220320/4	92	92	100	99
HD-QC1-0/1-4 MS	180-69061-13 MS	93	98	101	95
HD-MW-110-0/1-0 MS	180-69061-25 MS	95	93	85	108
HD-MW-110-0/1-0 MSD	180-69061-25 MSD	93	93	89	110

DBFM = Dibromofluoromethane (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS  
73-120  
65-121  
73-120  
80-120

# Column to be used to flag recovery values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50809D03.D

Lab ID: LCS 180-219487/3

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.90	99	49-135	
Vinyl chloride	10.0	10.6	106	52-136	
Bromomethane	10.0	11.6	116	37-150	
Chloroethane	10.0	10.2	102	44-139	
1,1-Dichloroethene	10.0	9.99	100	64-131	
Acetone	20.0	24.0	120	24-150	
Carbon disulfide	10.0	7.53	75	20-150	
Methylene Chloride	10.0	9.27	93	66-123	
trans-1,2-Dichloroethene	10.0	9.92	99	70-123	
Methyl tert-butyl ether	10.0	9.22	92	66-130	
1,1-Dichloroethane	10.0	9.81	98	66-122	
cis-1,2-Dichloroethene	10.0	9.35	94	73-120	
Bromochloromethane	10.0	9.13	91	73-122	
2-Butanone (MEK)	20.0	20.6	103	37-150	
Chloroform	10.0	9.59	96	72-123	
1,1,1-Trichloroethane	10.0	9.63	96	66-129	
Carbon tetrachloride	10.0	9.65	97	58-145	
Benzene	10.0	9.56	96	75-123	
1,2-Dichloroethane	10.0	9.46	95	63-130	
Trichloroethene	10.0	9.21	92	74-121	
1,2-Dichloropropane	10.0	9.42	94	67-119	
Bromodichloromethane	10.0	8.74	87	62-127	
cis-1,3-Dichloropropene	10.0	9.26	93	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	19.4	97	41-135	
Toluene	10.0	10.6	106	76-129	
trans-1,3-Dichloropropene	10.0	9.45	95	61-136	
1,1,2-Trichloroethane	10.0	9.65	96	74-126	
Tetrachloroethene	10.0	10.4	104	76-128	
2-Hexanone	20.0	19.8	99	37-150	
Dibromochloromethane	10.0	9.65	97	63-131	
1,2-Dibromoethane (EDB)	10.0	9.41	94	76-128	
Chlorobenzene	10.0	10.1	101	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.90	99	70-130	
Ethylbenzene	10.0	9.82	98	77-124	
Xylenes, Total	20.0	20.1	101	76-124	
Styrene	10.0	10.1	101	80-125	
Bromoform	10.0	8.69	87	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.50	95	72-128	
Acrylonitrile	100	94.1	94	60-130	
1,4-Dioxane	200	160 J	80	26-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50810D03.D

Lab ID: LCS 180-219617/3

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.77	98	49-135	
Vinyl chloride	10.0	10.2	102	52-136	
Bromomethane	10.0	10.4	104	37-150	
Chloroethane	10.0	10.4	104	44-139	
1,1-Dichloroethene	10.0	9.93	99	64-131	
Acetone	20.0	19.4	97	24-150	
Carbon disulfide	10.0	7.35	74	20-150	
Methylene Chloride	10.0	9.38	94	66-123	
trans-1,2-Dichloroethene	10.0	9.63	96	70-123	
Methyl tert-butyl ether	10.0	9.57	96	66-130	
1,1-Dichloroethane	10.0	9.55	96	66-122	
cis-1,2-Dichloroethene	10.0	9.52	95	73-120	
Bromochloromethane	10.0	9.22	92	73-122	
2-Butanone (MEK)	20.0	17.6	88	37-150	
Chloroform	10.0	9.44	94	72-123	
1,1,1-Trichloroethane	10.0	9.69	97	66-129	
Carbon tetrachloride	10.0	9.49	95	58-145	
Benzene	10.0	9.63	96	75-123	
1,2-Dichloroethane	10.0	9.62	96	63-130	
Trichloroethene	10.0	9.16	92	74-121	
1,2-Dichloropropane	10.0	9.15	92	67-119	
Bromodichloromethane	10.0	8.63	86	62-127	
cis-1,3-Dichloropropene	10.0	9.21	92	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	16.2	81	41-135	
Toluene	10.0	10.2	102	76-129	
trans-1,3-Dichloropropene	10.0	9.22	92	61-136	
1,1,2-Trichloroethane	10.0	9.59	96	74-126	
Tetrachloroethene	10.0	9.84	98	76-128	
2-Hexanone	20.0	16.2	81	37-150	
Dibromochloromethane	10.0	9.00	90	63-131	
1,2-Dibromoethane (EDB)	10.0	9.12	91	76-128	
Chlorobenzene	10.0	9.81	98	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.83	98	70-130	
Ethylbenzene	10.0	9.91	99	77-124	
Xylenes, Total	20.0	19.1	96	76-124	
Styrene	10.0	9.67	97	80-125	
Bromoform	10.0	8.62	86	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.34	93	72-128	
Acrylonitrile	100	92.9	93	60-130	
1,4-Dioxane	200	170 J	85	26-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50811D04.D

Lab ID: LCS 180-219759/4

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.24	92	49-135	
Vinyl chloride	10.0	9.95	100	52-136	
Bromomethane	10.0	10.7	107	37-150	
Chloroethane	10.0	9.68	97	44-139	
1,1-Dichloroethene	10.0	9.06	91	64-131	
Acetone	20.0	18.8	94	24-150	
Carbon disulfide	10.0	7.03	70	20-150	
Methylene Chloride	10.0	9.41	94	66-123	
trans-1,2-Dichloroethene	10.0	9.14	91	70-123	
Methyl tert-butyl ether	10.0	9.65	97	66-130	
1,1-Dichloroethane	10.0	9.08	91	66-122	
cis-1,2-Dichloroethene	10.0	8.95	90	73-120	
Bromochloromethane	10.0	9.16	92	73-122	
2-Butanone (MEK)	20.0	18.2	91	37-150	
Chloroform	10.0	9.12	91	72-123	
1,1,1-Trichloroethane	10.0	9.21	92	66-129	
Carbon tetrachloride	10.0	8.77	88	58-145	
Benzene	10.0	9.03	90	75-123	
1,2-Dichloroethane	10.0	9.30	93	63-130	
Trichloroethene	10.0	8.60	86	74-121	
1,2-Dichloropropane	10.0	8.87	89	67-119	
Bromodichloromethane	10.0	8.53	85	62-127	
cis-1,3-Dichloropropene	10.0	8.81	88	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	16.8	84	41-135	
Toluene	10.0	9.61	96	76-129	
trans-1,3-Dichloropropene	10.0	9.03	90	61-136	
1,1,2-Trichloroethane	10.0	9.87	99	74-126	
Tetrachloroethene	10.0	9.13	91	76-128	
2-Hexanone	20.0	16.7	83	37-150	
Dibromochloromethane	10.0	8.71	87	63-131	
1,2-Dibromoethane (EDB)	10.0	9.28	93	76-128	
Chlorobenzene	10.0	9.27	93	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.19	92	70-130	
Ethylbenzene	10.0	8.89	89	77-124	
Xylenes, Total	20.0	18.2	91	76-124	
Styrene	10.0	9.11	91	80-125	
Bromoform	10.0	8.52	85	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.67	97	72-128	
Acrylonitrile	100	97.6	98	60-130	
1,4-Dioxane	200	188 J	94	26-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50816D04.D

Lab ID: LCS 180-220320/4

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	9.11	91	49-135	
Vinyl chloride	10.0	10.1	101	52-136	
Bromomethane	10.0	11.4	114	37-150	
Chloroethane	10.0	10.2	102	44-139	
1,1-Dichloroethene	10.0	10.4	104	64-131	
Acetone	20.0	15.4	77	24-150	
Carbon disulfide	10.0	10.0	100	20-150	
Methylene Chloride	10.0	8.92	89	66-123	
trans-1,2-Dichloroethene	10.0	9.88	99	70-123	
Methyl tert-butyl ether	10.0	8.96	90	66-130	
1,1-Dichloroethane	10.0	9.70	97	66-122	
cis-1,2-Dichloroethene	10.0	9.14	91	73-120	
Bromochloromethane	10.0	8.97	90	73-122	
2-Butanone (MEK)	20.0	14.1	70	37-150	
Chloroform	10.0	9.12	91	72-123	
1,1,1-Trichloroethane	10.0	10.2	102	66-129	
Carbon tetrachloride	10.0	9.97	100	58-145	
Benzene	10.0	9.30	93	75-123	
1,2-Dichloroethane	10.0	8.92	89	63-130	
Trichloroethene	10.0	9.28	93	74-121	
1,2-Dichloropropane	10.0	9.07	91	67-119	
Bromodichloromethane	10.0	8.72	87	62-127	
cis-1,3-Dichloropropene	10.0	8.87	89	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	15.6	78	41-135	
Toluene	10.0	9.79	98	76-129	
trans-1,3-Dichloropropene	10.0	9.30	93	61-136	
1,1,2-Trichloroethane	10.0	9.07	91	74-126	
Tetrachloroethene	10.0	9.79	98	76-128	
2-Hexanone	20.0	15.3	76	37-150	
Dibromochloromethane	10.0	8.79	88	63-131	
1,2-Dibromoethane (EDB)	10.0	8.63	86	76-128	
Chlorobenzene	10.0	9.44	94	79-124	
1,1,1,2-Tetrachloroethane	10.0	9.40	94	70-130	
Ethylbenzene	10.0	9.46	95	77-124	
Xylenes, Total	20.0	18.6	93	76-124	
Styrene	10.0	8.96	90	80-125	
Bromoform	10.0	8.40	84	54-136	
1,1,2,2-Tetrachloroethane	10.0	8.80	88	72-128	
Acrylonitrile	100	85.4	85	60-130	
1,4-Dioxane	200	148 J	74	26-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50810D07.D

Lab ID: 180-69061-13 MS

Client ID: HD-QC1-0/1-4 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	9.24	92	49-135	
Vinyl chloride	10.0	1.0 U	9.88	99	52-136	
Bromomethane	10.0	1.0 U	11.6	116	37-150	
Chloroethane	10.0	1.0 U	10.5	105	44-139	
1,1-Dichloroethene	10.0	1.0 U	9.36	94	64-131	
Acetone	20.0	4.9 J	17.9	65	24-150	
Carbon disulfide	10.0	1.0 U	7.31	73	20-150	
Methylene Chloride	10.0	1.0 U	9.63	96	66-123	
trans-1,2-Dichloroethene	10.0	1.0 U	9.62	96	70-123	
Methyl tert-butyl ether	10.0	1.0 U	9.88	99	66-130	
1,1-Dichloroethane	10.0	1.0 U	9.73	97	66-122	
cis-1,2-Dichloroethene	10.0	1.0 U	9.50	95	73-120	
Bromochloromethane	10.0	1.0 U	9.68	97	73-122	
2-Butanone (MEK)	20.0	5.0 U	17.7	89	37-150	
Chloroform	10.0	1.0 U	9.75	98	72-123	
1,1,1-Trichloroethane	10.0	1.0 U	9.44	94	66-129	
Carbon tetrachloride	10.0	1.0 U	9.28	93	58-145	
Benzene	10.0	1.0 U	9.61	96	75-123	
1,2-Dichloroethane	10.0	1.0 U	9.82	98	63-130	
Trichloroethene	10.0	1.0 U	9.00	90	74-121	
1,2-Dichloropropane	10.0	1.0 U	9.40	94	67-119	
Bromodichloromethane	10.0	1.0 U	8.93	89	62-127	
cis-1,3-Dichloropropene	10.0	1.0 U	9.15	92	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	16.7	83	41-135	
Toluene	10.0	0.17 J	10.1	99	76-129	
trans-1,3-Dichloropropene	10.0	1.0 U	9.36	94	61-136	
1,1,2-Trichloroethane	10.0	1.0 U	9.69	97	74-126	
Tetrachloroethene	10.0	1.0 U	9.25	92	76-128	
2-Hexanone	20.0	5.0 U	15.2	76	37-150	
Dibromochloromethane	10.0	1.0 U	9.06	91	63-131	
1,2-Dibromoethane (EDB)	10.0	1.0 U	9.56	96	76-128	
Chlorobenzene	10.0	1.0 U	9.60	96	79-124	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	9.82	98	70-130	
Ethylbenzene	10.0	1.0 U	9.50	95	77-124	
Xylenes, Total	20.0	2.0 U	18.9	94	76-124	
Styrene	10.0	1.0 U	9.53	95	80-125	
Bromoform	10.0	1.0 U	8.48	85	54-136	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.51	95	72-128	
Acrylonitrile	100	20 U	95.5	96	60-130	
1,4-Dioxane	200	200 U	142 J	71	26-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50809D07.D

Lab ID: 180-69061-25 MS

Client ID: HD-MW-110-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	50.0	5.0 U	51.7	103	49-135	
Vinyl chloride	50.0	5.0 U	54.5	109	52-136	
Bromomethane	50.0	5.0 U	65.7	131	37-150	
Chloroethane	50.0	5.0 U	57.3	115	44-139	
1,1-Dichloroethene	50.0	5.0 U	51.3	103	64-131	
Acetone	100	25 U	68.7	69	24-150	
Carbon disulfide	50.0	5.0 U	44.2	88	20-150	
Methylene Chloride	50.0	5.0 U	45.7	91	66-123	
trans-1,2-Dichloroethene	50.0	5.0 U	49.2	98	70-123	
Methyl tert-butyl ether	50.0	5.0 U	45.7	91	66-130	
1,1-Dichloroethane	50.0	5.0 U	48.4	97	66-122	
cis-1,2-Dichloroethene	50.0	5.0 U	46.4	93	73-120	
Bromochloromethane	50.0	5.0 U	45.1	90	73-122	
2-Butanone (MEK)	100	25 U	71.3	71	37-150	
Chloroform	50.0	5.0 U	47.6	95	72-123	
1,1,1-Trichloroethane	50.0	5.0 U	48.6	97	66-129	
Carbon tetrachloride	50.0	5.0 U	48.9	98	58-145	
Benzene	50.0	5.0 U	47.4	95	75-123	
1,2-Dichloroethane	50.0	5.0 U	48.1	96	63-130	
Trichloroethene	50.0	5.0 U	48.3	97	74-121	
1,2-Dichloropropane	50.0	5.0 U	45.5	91	67-119	
Bromodichloromethane	50.0	5.0 U	43.7	87	62-127	
cis-1,3-Dichloropropene	50.0	5.0 U	44.4	89	61-127	
4-Methyl-2-pentanone (MIBK)	100	25 U	62.8	63	41-135	
Toluene	50.0	5.0 U	40.0	80	76-129	
trans-1,3-Dichloropropene	50.0	5.0 U	36.9	74	61-136	
1,1,2-Trichloroethane	50.0	5.0 U	37.4	75	74-126	
Tetrachloroethene	50.0	44	82.6	76	76-128	
2-Hexanone	100	25 U	60.4	60	37-150	
Dibromochloromethane	50.0	5.0 U	36.6	73	63-131	
1,2-Dibromoethane (EDB)	50.0	5.0 U	37.1	74	76-128	F1
Chlorobenzene	50.0	5.0 U	38.2	76	79-124	F1
1,1,1,2-Tetrachloroethane	50.0	5.0 U	38.9	78	70-130	
Ethylbenzene	50.0	5.0 U	38.4	77	77-124	
Xylenes, Total	100	10 U	77.3	77	76-124	
Styrene	50.0	5.0 U	38.1	76	80-125	F1
Bromoform	50.0	5.0 U	33.6	67	54-136	
1,1,2,2-Tetrachloroethane	50.0	5.0 U	38.4	77	72-128	
Acrylonitrile	500	100 U	445	89	60-130	
1,4-Dioxane	1000	1000 U	666 J	67	26-150	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Matrix: Water Level: Low

Lab File ID: 50809D08.D

Lab ID: 180-69061-25 MSD

Client ID: HD-MW-110-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	50.0	44.5	89	15	20	49-135	
Vinyl chloride	50.0	47.7	95	13	19	52-136	
Bromomethane	50.0	58.4	117	12	23	37-150	
Chloroethane	50.0	50.5	101	13	19	44-139	
1,1-Dichloroethene	50.0	45.3	91	13	20	64-131	
Acetone	100	74.0	74	7	35	24-150	
Carbon disulfide	50.0	39.2	78	12	21	20-150	
Methylene Chloride	50.0	42.9	86	6	22	66-123	
trans-1,2-Dichloroethene	50.0	44.6	89	10	19	70-123	
Methyl tert-butyl ether	50.0	44.1	88	3	23	66-130	
1,1-Dichloroethane	50.0	43.7	87	10	20	66-122	
cis-1,2-Dichloroethene	50.0	41.2	82	12	23	73-120	
Bromochloromethane	50.0	40.6	81	11	24	73-122	
2-Butanone (MEK)	100	73.6	74	3	35	37-150	
Chloroform	50.0	43.2	86	10	20	72-123	
1,1,1-Trichloroethane	50.0	44.6	89	9	21	66-129	
Carbon tetrachloride	50.0	42.4	85	14	22	58-145	
Benzene	50.0	42.8	86	10	20	75-123	
1,2-Dichloroethane	50.0	43.6	87	10	21	63-130	
Trichloroethene	50.0	43.0	86	12	20	74-121	
1,2-Dichloropropane	50.0	43.8	88	4	21	67-119	
Bromodichloromethane	50.0	40.8	82	7	19	62-127	
cis-1,3-Dichloropropene	50.0	40.0	80	10	22	61-127	
4-Methyl-2-pentanone (MIBK)	100	63.3	63	1	35	41-135	
Toluene	50.0	37.6	75	6	18	76-129	F1
trans-1,3-Dichloropropene	50.0	36.0	72	2	17	61-136	
1,1,2-Trichloroethane	50.0	37.1	74	1	20	74-126	
Tetrachloroethene	50.0	78.8	69	5	20	76-128	F1
2-Hexanone	100	60.9	61	1	35	37-150	
Dibromochloromethane	50.0	34.4	69	6	20	63-131	
1,2-Dibromoethane (EDB)	50.0	35.3	71	5	21	76-128	F1
Chlorobenzene	50.0	36.0	72	6	16	79-124	F1
1,1,1,2-Tetrachloroethane	50.0	36.3	73	7	17	70-130	
Ethylbenzene	50.0	35.4	71	8	16	77-124	F1
Xylenes, Total	100	71.6	72	8	17	76-124	F1
Styrene	50.0	35.0	70	8	18	80-125	F1
Bromoform	50.0	32.2	64	4	23	54-136	
1,1,2,2-Tetrachloroethane	50.0	36.3	73	6	24	72-128	
Acrylonitrile	500	443	89	1	32	60-130	
1,4-Dioxane	1000	720 J	72	8	35	26-150	

# Column to be used to flag recovery and RPD values



FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50809D05.D Lab Sample ID: MB 180-219487/5  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 08/09/2017 03:30  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-219487/3	50809D03.D	08/09/2017 02:27
HD-MW-110-0/1-0	180-69061-25	50809D06.D	08/09/2017 04:03
HD-MW-110-0/1-0 MS	180-69061-25 MS	50809D07.D	08/09/2017 04:28
HD-MW-110-0/1-0 MSD	180-69061-25 MSD	50809D08.D	08/09/2017 04:52
HD-MW-109D-0/1-0	180-69061-1	50809D10.D	08/09/2017 05:40
HD-MW-175-0/1-0	180-69061-2	50809D11.D	08/09/2017 06:04
HD-MW-164-0/1-0	180-69061-3	50809D12.D	08/09/2017 06:28
HD-MW-169-0/1-0	180-69061-4	50809D13.D	08/09/2017 06:52
HD-MW-170-0/1-0	180-69061-5	50809D14.D	08/09/2017 07:15
HD-MW-174-0/1-0	180-69061-6	50809D16.D	08/09/2017 08:03
HD-MW-167-0/1-0	180-69061-7	50809D17.D	08/09/2017 08:27
HD-MW-166-0/1-0	180-69061-9	50809D19.D	08/09/2017 09:16
HD-MW-168-0/1-0	180-69061-10	50809D20.D	08/09/2017 09:40
HD-MW-141A-0/1-0	180-69061-11	50809D22.D	08/09/2017 10:28
HD-MW-171-0/1-0	180-69061-12	50809D23.D	08/09/2017 10:52

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50810D05.D Lab Sample ID: MB 180-219617/5  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 08/10/2017 01:53  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-219617/3	50810D03.D	08/10/2017 00:56
HD-QC1-0/1-4	180-69061-13	50810D06.D	08/10/2017 02:26
HD-QC1-0/1-4 MS	180-69061-13 MS	50810D07.D	08/10/2017 02:54
HD-QC1-0/1-3	180-69061-14	50810D09.D	08/10/2017 03:41
HD-QC1-0/1-2	180-69061-15	50810D10.D	08/10/2017 04:05
HD-MW-172-0/1-0	180-69061-16	50810D11.D	08/10/2017 04:29
HD-MW-173-0/1-0	180-69061-17	50810D12.D	08/10/2017 04:53
HD-MW-108D-0/1-0	180-69061-18	50810D13.D	08/10/2017 05:17
HD-MW-108S-0/1-0	180-69061-19	50810D15.D	08/10/2017 06:04
HD-MW-64S-0/1-0	180-69061-20	50810D16.D	08/10/2017 06:28
HD-MW-64D-0/1-0 DL	180-69061-22 DL	50810D18.D	08/10/2017 07:16
HD-MW-161-0/1-0	180-69061-23	50810D21.D	08/10/2017 08:28
HD-QC1-0/1-1	180-69061-27	50810D24.D	08/10/2017 09:40

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50811D07.D Lab Sample ID: MB 180-219759/7  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP5 Date Analyzed: 08/11/2017 04:11  
 GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-219759/4	50811D04.D	08/11/2017 03:00
HD-MW-109S-0/1-0	180-69061-26	50811D17.D	08/11/2017 08:09
HD-MW-163-0/1-0	180-69061-24	50811D18.D	08/11/2017 08:33
HD-QC1-0/1-1 DL	180-69061-27 DL	50811D19.D	08/11/2017 08:57
HD-MW-161-0/1-0 DL	180-69061-23 DL	50811D20.D	08/11/2017 09:21
HD-MW-162-0/1-0	180-69061-28	50811D21.D	08/11/2017 09:45

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
SDG No.: \_\_\_\_\_  
Lab File ID: 50816D06.D Lab Sample ID: MB 180-220320/6  
Matrix: Water Heated Purge: (Y/N) N  
Instrument ID: CHHP5 Date Analyzed: 08/17/2017 02:11  
GC Column: DB-624 ID: 0.18 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-220320/4	50816D04.D	08/17/2017 01:10
HD-MW-64D-0/1-0	180-69061-22	50816D28.D	08/17/2017 11:07

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50608D01.D BFB Injection Date: 06/08/2017  
 Instrument ID: CHHP5 BFB Injection Time: 05:32  
 Analysis Batch No.: 213537

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.3
75	30.0 - 60.0 % of mass 95	46.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.9
173	Less than 2.0 % of mass 174	0.6 (0.8) 1
174	50.0 - 120.00 % of mass 95	77.0
175	5.0 - 9.0 % of mass 174	5.8 (7.5) 1
176	95.0 - 101.0 % of mass 174	75.7 (98.3) 1
177	5.0 - 9.0 % of mass 176	5.6 (7.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-213537/2	50608D02.D	06/08/2017	06:03
	IC 180-213537/3	50608D03.D	06/08/2017	06:27
	ICIS 180-213537/4	50608D04.D	06/08/2017	06:50
	IC 180-213537/5	50608D05.D	06/08/2017	07:24
	IC 180-213537/6	50608D06.D	06/08/2017	07:48
	IC 180-213537/7	50608D07.D	06/08/2017	08:11
	IC 180-213537/8	50608D08.D	06/08/2017	08:35
	IC 180-213537/9	50608D09.D	06/08/2017	08:59
	ICV 180-213537/11	50608D11.D	06/08/2017	09:46
	ICV 180-213537/21	50608D21.D	06/08/2017	13:42

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50727D01.D BFB Injection Date: 07/27/2017  
 Instrument ID: CHHP5 BFB Injection Time: 00:22  
 Analysis Batch No.: 218218

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	16.0
75	30.0 - 60.0 % of mass 95	47.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.9
173	Less than 2.0 % of mass 174	0.4 (0.5) 1
174	50.0 - 120.00 % of mass 95	75.4
175	5.0 - 9.0 % of mass 174	5.4 (7.2) 1
176	95.0 - 101.0 % of mass 174	74.0 (98.2) 1
177	5.0 - 9.0 % of mass 176	4.8 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-218218/2	50727D02.D	07/27/2017	00:51
	IC 180-218218/3	50727D03.D	07/27/2017	01:15
	ICIS 180-218218/4	50727D04.D	07/27/2017	01:39
	IC 180-218218/5	50727D05.D	07/27/2017	02:02
	IC 180-218218/6	50727D06.D	07/27/2017	02:26
	IC 180-218218/8	50727D08.D	07/27/2017	03:13
	IC 180-218218/10	50727D10.D	07/27/2017	04:00
	IC 180-218218/11	50727D11.D	07/27/2017	04:24
	ICV 180-218218/12	50727D12.D	07/27/2017	05:03

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50809D01.D BFB Injection Date: 08/09/2017  
 Instrument ID: CHHP5 BFB Injection Time: 01:19  
 Analysis Batch No.: 219487

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	70.9	
175	5.0 - 9.0 % of mass 174	5.7	(8.0) 1
176	95.0 - 101.0 % of mass 174	68.1	(96.1) 1
177	5.0 - 9.0 % of mass 176	4.7	(7.0) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-219487/2	50809D02.D	08/09/2017	01:50
	LCS 180-219487/3	50809D03.D	08/09/2017	02:27
	MB 180-219487/5	50809D05.D	08/09/2017	03:30
HD-MW-110-0/1-0	180-69061-25	50809D06.D	08/09/2017	04:03
HD-MW-110-0/1-0 MS	180-69061-25 MS	50809D07.D	08/09/2017	04:28
HD-MW-110-0/1-0 MSD	180-69061-25 MSD	50809D08.D	08/09/2017	04:52
HD-MW-109D-0/1-0	180-69061-1	50809D10.D	08/09/2017	05:40
HD-MW-175-0/1-0	180-69061-2	50809D11.D	08/09/2017	06:04
HD-MW-164-0/1-0	180-69061-3	50809D12.D	08/09/2017	06:28
HD-MW-169-0/1-0	180-69061-4	50809D13.D	08/09/2017	06:52
HD-MW-170-0/1-0	180-69061-5	50809D14.D	08/09/2017	07:15
HD-MW-174-0/1-0	180-69061-6	50809D16.D	08/09/2017	08:03
HD-MW-167-0/1-0	180-69061-7	50809D17.D	08/09/2017	08:27
HD-MW-166-0/1-0	180-69061-9	50809D19.D	08/09/2017	09:16
HD-MW-168-0/1-0	180-69061-10	50809D20.D	08/09/2017	09:40
HD-MW-141A-0/1-0	180-69061-11	50809D22.D	08/09/2017	10:28
HD-MW-171-0/1-0	180-69061-12	50809D23.D	08/09/2017	10:52

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50810D01.D BFB Injection Date: 08/09/2017  
 Instrument ID: CHHP5 BFB Injection Time: 23:50  
 Analysis Batch No.: 219617

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	18.1
75	30.0 - 60.0 % of mass 95	47.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	1.0 (1.3) 1
174	50.0 - 120.00 % of mass 95	79.3
175	5.0 - 9.0 % of mass 174	6.4 (8.1) 1
176	95.0 - 101.0 % of mass 174	77.9 (98.1) 1
177	5.0 - 9.0 % of mass 176	5.0 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-219617/2	50810D02.D	08/10/2017	00:22
	LCS 180-219617/3	50810D03.D	08/10/2017	00:56
	MB 180-219617/5	50810D05.D	08/10/2017	01:53
HD-QC1-0/1-4	180-69061-13	50810D06.D	08/10/2017	02:26
HD-QC1-0/1-4 MS	180-69061-13 MS	50810D07.D	08/10/2017	02:54
HD-QC1-0/1-3	180-69061-14	50810D09.D	08/10/2017	03:41
HD-QC1-0/1-2	180-69061-15	50810D10.D	08/10/2017	04:05
HD-MW-172-0/1-0	180-69061-16	50810D11.D	08/10/2017	04:29
HD-MW-173-0/1-0	180-69061-17	50810D12.D	08/10/2017	04:53
HD-MW-108D-0/1-0	180-69061-18	50810D13.D	08/10/2017	05:17
HD-MW-108S-0/1-0	180-69061-19	50810D15.D	08/10/2017	06:04
HD-MW-64S-0/1-0	180-69061-20	50810D16.D	08/10/2017	06:28
HD-MW-64D-0/1-0 DL	180-69061-22 DL	50810D18.D	08/10/2017	07:16
HD-MW-161-0/1-0	180-69061-23	50810D21.D	08/10/2017	08:28
HD-QC1-0/1-1	180-69061-27	50810D24.D	08/10/2017	09:40



FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50811D01.D BFB Injection Date: 08/11/2017  
 Instrument ID: CHHP5 BFB Injection Time: 00:48  
 Analysis Batch No.: 219759

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.2	
75	30.0 - 60.0 % of mass 95	51.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.5	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	77.5	
175	5.0 - 9.0 % of mass 174	6.4	(8.2) 1
176	95.0 - 101.0 % of mass 174	76.7	(98.9) 1
177	5.0 - 9.0 % of mass 176	5.1	(6.7) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-219759/2	50811D02.D	08/11/2017	01:51
	LCS 180-219759/4	50811D04.D	08/11/2017	03:00
	MB 180-219759/7	50811D07.D	08/11/2017	04:11
HD-MW-109S-0/1-0	180-69061-26	50811D17.D	08/11/2017	08:09
HD-MW-163-0/1-0	180-69061-24	50811D18.D	08/11/2017	08:33
HD-QC1-0/1-1 DL	180-69061-27 DL	50811D19.D	08/11/2017	08:57
HD-MW-161-0/1-0 DL	180-69061-23 DL	50811D20.D	08/11/2017	09:21
HD-MW-162-0/1-0	180-69061-28	50811D21.D	08/11/2017	09:45

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 50816D01.D BFB Injection Date: 08/16/2017  
 Instrument ID: CHHP5 BFB Injection Time: 23:20  
 Analysis Batch No.: 220320

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.7	
75	30.0 - 60.0 % of mass 95	45.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.2	(0.2) 1
174	50.0 - 120.00 % of mass 95	71.0	
175	5.0 - 9.0 % of mass 174	5.4	(7.6) 1
176	95.0 - 101.0 % of mass 174	67.6	(95.2) 1
177	5.0 - 9.0 % of mass 176	4.1	(6.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-220320/2	50816D02.D	08/16/2017	23:53
	LCS 180-220320/4	50816D04.D	08/17/2017	01:10
	MB 180-220320/6	50816D06.D	08/17/2017	02:11
HD-MW-64D-0/1-0	180-69061-22	50816D28.D	08/17/2017	11:07

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 180-213537/4 Date Analyzed: 06/08/2017 06:50  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50608D04.D Heated Purge: (Y/N) N  
 Calibration ID: 34799

	TBA <sub>d</sub> 9		FB		CBN <sub>Zd</sub> 5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	265733	4.34	343353	7.34	84081	10.43
UPPER LIMIT	531466	4.84	686706	7.84	168162	10.93
LOWER LIMIT	132867	3.84	171677	6.84	42041	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-213537/11	237564	4.34	310218	7.34	78824	10.43
ICV 180-213537/21	184072	4.34	340635	7.34	86815	10.43

TBA<sub>d</sub>9 = TBA-d<sub>9</sub> (IS)

FB = Fluorobenzene (IS)

CBN<sub>Zd</sub>5 = Chlorobenzene-d<sub>5</sub>

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 180-213537/4 Date Analyzed: 06/08/2017 06:50  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50608D04.D Heated Purge: (Y/N) N  
 Calibration ID: 34799

	DCBd4		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	124675	12.78				
UPPER LIMIT	249350	13.28				
LOWER LIMIT	62338	12.28				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-213537/11		117362	12.78			
ICV 180-213537/21		123546	12.78			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 180-218218/4 Date Analyzed: 07/27/2017 01:39  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50727D04.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	TBA <sub>d</sub> 9		FB		CBN <sub>Zd</sub> 5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	240414	4.33	539679	7.30	132843	10.41
UPPER LIMIT	480828	4.83	1079358	7.80	265686	10.91
LOWER LIMIT	120207	3.83	269840	6.80	66422	9.91
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-218218/12	309556	4.31	616746	7.30	146808	10.41

TBA<sub>d</sub>9 = TBA-d9 (IS)  
 FB = Fluorobenzene (IS)  
 CBN<sub>Zd</sub>5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 180-218218/4 Date Analyzed: 07/27/2017 01:39  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50727D04.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	DCBd4		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	174621	12.77				
UPPER LIMIT	349242	13.27				
LOWER LIMIT	87311	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-218218/12		194967	12.78			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-219487/2 Date Analyzed: 08/09/2017 01:50  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50809D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	TBA <sub>d</sub> 9		FB		CBN <sub>Zd</sub> 5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	237912	4.37	533380	7.34	122960	10.43
UPPER LIMIT	475824	4.87	1066760	7.84	245920	10.93
LOWER LIMIT	118956	3.87	266690	6.84	61480	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 180-219487/3	237454	4.37	570077	7.34	128291	10.43
MB 180-219487/5	316310	4.35	539618	7.34	154521	10.43
180-69061-25	HD-MW-110-0/1-0	304297	532788	7.34	152549	10.43
180-69061-25 MS	HD-MW-110-0/1-0 MS	269768	564619	7.34	163488	10.43
180-69061-25 MSD	HD-MW-110-0/1-0 MSD	295644	568488	7.34	159293	10.43
180-69061-1	HD-MW-109D-0/1-0	284443	544398	7.34	149090	10.43
180-69061-2	HD-MW-175-0/1-0	289347	511893	7.34	143885	10.43
180-69061-3	HD-MW-164-0/1-0	256593	500384	7.33	135929	10.43
180-69061-4	HD-MW-169-0/1-0	267353	492203	7.34	134664	10.43
180-69061-5	HD-MW-170-0/1-0	277466	508798	7.33	138713	10.42
180-69061-6	HD-MW-174-0/1-0	273114	494791	7.34	140084	10.43
180-69061-7	HD-MW-167-0/1-0	248461	493267	7.34	140383	10.43
180-69061-9	HD-MW-166-0/1-0	265179	495113	7.34	138963	10.43
180-69061-10	HD-MW-168-0/1-0	271180	498713	7.34	144537	10.43
180-69061-11	HD-MW-141A-0/1-0	272982	494843	7.33	138230	10.43
180-69061-12	HD-MW-171-0/1-0	277154	508911	7.34	139396	10.43

TBA<sub>d</sub>9 = TBA-d<sub>9</sub> (IS)  
 FB = Fluorobenzene (IS)  
 CBN<sub>Zd</sub>5 = Chlorobenzene-d<sub>5</sub>

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-219487/2 Date Analyzed: 08/09/2017 01:50  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50809D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		168425	12.77				
UPPER LIMIT		336850	13.27				
LOWER LIMIT		84213	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-219487/3		170473	12.77				
MB 180-219487/5		240338	12.77				
180-69061-25	HD-MW-110-0/1-0	228487	12.77				
180-69061-25 MS	HD-MW-110-0/1-0 MS	279110	12.77				
180-69061-25 MSD	HD-MW-110-0/1-0 MSD	272317	12.77				
180-69061-1	HD-MW-109D-0/1-0	241180	12.77				
180-69061-2	HD-MW-175-0/1-0	228807	12.77				
180-69061-3	HD-MW-164-0/1-0	213172	12.77				
180-69061-4	HD-MW-169-0/1-0	215019	12.77				
180-69061-5	HD-MW-170-0/1-0	219113	12.77				
180-69061-6	HD-MW-174-0/1-0	216779	12.77				
180-69061-7	HD-MW-167-0/1-0	214223	12.77				
180-69061-9	HD-MW-166-0/1-0	216198	12.77				
180-69061-10	HD-MW-168-0/1-0	216467	12.77				
180-69061-11	HD-MW-141A-0/1-0	226266	12.77				
180-69061-12	HD-MW-171-0/1-0	221363	12.77				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits



FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-219617/2 Date Analyzed: 08/10/2017 00:22  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50810D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	TBA <sub>d</sub> 9		FB		CBN <sub>Zd</sub> 5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	227089	4.38	537277	7.33	121737	10.42	
UPPER LIMIT	454178	4.88	1074554	7.83	243474	10.92	
LOWER LIMIT	113545	3.88	268639	6.83	60869	9.92	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-219617/3		259901	4.38	550580	7.34	126201	10.43
MB 180-219617/5		312270	4.35	539206	7.34	151330	10.43
180-69061-13	HD-QC1-0/1-4	320924	4.34	540362	7.34	156993	10.43
180-69061-13 MS	HD-QC1-0/1-4 MS	181618	4.36	513995	7.33	120993	10.43
180-69061-14	HD-QC1-0/1-3	292502	4.35	532032	7.34	149677	10.43
180-69061-15	HD-QC1-0/1-2	301109	4.35	576752	7.34	161831	10.43
180-69061-16	HD-MW-172-0/1-0	289559	4.35	511448	7.34	143967	10.43
180-69061-17	HD-MW-173-0/1-0	291400	4.36	513905	7.34	146676	10.43
180-69061-18	HD-MW-108D-0/1-0	286099	4.35	510212	7.33	143640	10.43
180-69061-19	HD-MW-108S-0/1-0	283071	4.35	500927	7.34	145312	10.43
180-69061-20	HD-MW-64S-0/1-0	278837	4.35	502520	7.34	140592	10.43
180-69061-22 DL	HD-MW-64D-0/1-0 DL	263085	4.36	497352	7.34	140897	10.43
180-69061-23	HD-MW-161-0/1-0	276625	4.36	487764	7.34	144052	10.43
180-69061-27	HD-QC1-0/1-1	268485	4.36	492887	7.34	144029	10.43

TBA<sub>d</sub>9 = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN<sub>Zd</sub>5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-219617/2 Date Analyzed: 08/10/2017 00:22  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50810D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		168013	12.77				
UPPER LIMIT		336026	13.27				
LOWER LIMIT		84007	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-219617/3		174523	12.77				
MB 180-219617/5		238882	12.77				
180-69061-13	HD-QC1-0/1-4	243798	12.77				
180-69061-13 MS	HD-QC1-0/1-4 MS	163543	12.77				
180-69061-14	HD-QC1-0/1-3	242665	12.77				
180-69061-15	HD-QC1-0/1-2	257990	12.77				
180-69061-16	HD-MW-172-0/1-0	227246	12.77				
180-69061-17	HD-MW-173-0/1-0	226192	12.77				
180-69061-18	HD-MW-108D-0/1-0	223906	12.77				
180-69061-19	HD-MW-108S-0/1-0	226895	12.77				
180-69061-20	HD-MW-64S-0/1-0	222260	12.77				
180-69061-22 DL	HD-MW-64D-0/1-0 DL	218487	12.77				
180-69061-23	HD-MW-161-0/1-0	222931	12.77				
180-69061-27	HD-QC1-0/1-1	228271	12.77				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-219759/2 Date Analyzed: 08/11/2017 01:51  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50811D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	TBA <sub>d</sub> 9		FB		CBN <sub>Zd</sub> 5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	248428	4.37	527374	7.33	124765	10.43	
UPPER LIMIT	496856	4.87	1054748	7.83	249530	10.93	
LOWER LIMIT	124214	3.87	263687	6.83	62383	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-219759/4	242374	4.37	527900	7.33	123905	10.43	
MB 180-219759/7	319015	4.35	545601	7.34	158664	10.43	
180-69061-26	HD-MW-109S-0/1-0	282351	4.35	584569	7.34	151758	10.43
180-69061-24	HD-MW-163-0/1-0	285832	4.36	601770	7.34	159314	10.43
180-69061-27 DL	HD-QC1-0/1-1 DL	255801	4.35	573314	7.34	148883	10.43
180-69061-23 DL	HD-MW-161-0/1-0 DL	253780	4.36	557333	7.34	142494	10.43
180-69061-28	HD-MW-162-0/1-0	240330	4.35	548108	7.34	137511	10.43

TBA<sub>d</sub>9 = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN<sub>Zd</sub>5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-219759/2 Date Analyzed: 08/11/2017 01:51  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50811D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		172549	12.77				
UPPER LIMIT		345098	13.27				
LOWER LIMIT		86275	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-219759/4		167011	12.77				
MB 180-219759/7		250614	12.77				
180-69061-26	HD-MW-109S-0/1-0	228859	12.77				
180-69061-24	HD-MW-163-0/1-0	232857	12.77				
180-69061-27 DL	HD-QC1-0/1-1 DL	218129	12.77				
180-69061-23 DL	HD-MW-161-0/1-0 DL	210288	12.77				
180-69061-28	HD-MW-162-0/1-0	204713	12.77				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-220320/2 Date Analyzed: 08/16/2017 23:53  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50816D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	TBA <sub>d</sub> 9		FB		CBN <sub>Zd</sub> 5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	241247	4.37	631708	7.33	142648	10.43	
UPPER LIMIT	482494	4.87	1263416	7.83	285296	10.93	
LOWER LIMIT	120624	3.87	315854	6.83	71324	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-220320/4	245905	4.36	653382	7.34	151382	10.43	
MB 180-220320/6	318507	4.36	631722	7.34	158389	10.43	
180-69061-22	HD-MW-64D-0/1-0	308138	4.36	621602	7.34	158401	10.43

TBA<sub>d</sub>9 = TBA-d9 (IS)  
 FB = Fluorobenzene (IS)  
 CBN<sub>Zd</sub>5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-220320/2 Date Analyzed: 08/16/2017 23:53  
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 50816D02.D Heated Purge: (Y/N) N  
 Calibration ID: 35038

	DCBd4		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
12/24 HOUR STD	195674	12.77				
UPPER LIMIT	391348	13.27				
LOWER LIMIT	97837	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 180-220320/4		194856	12.77			
MB 180-220320/6		224718	12.77			
180-69061-22	HD-MW-64D-0/1-0	221708	12.77			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-109D-0/1-0 Lab Sample ID: 180-69061-1  
 Matrix: Water Lab File ID: 50809D10.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 10:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 05:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	4.8	J	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	2.2		1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-109D-0/1-0 Lab Sample ID: 180-69061-1  
 Matrix: Water Lab File ID: 50809D10.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 10:55  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 05:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	106		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		73-120



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D10.D  
 Lims ID: 180-69061-C-1  
 Client ID: HD-MW-109D-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 05:40:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-010  
 Misc. Info.: 180-69061-C-1  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 21:57:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.359	4.373	-0.014	0	284443	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.336	0.004	99	544398	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.426	0.004	86	149090	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.768	0.004	96	241180	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.618	0.004	94	121785	46.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.993	6.983	0.010	0	152178	47.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.978	0.004	93	526099	44.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.612	-0.002	86	226478	52.8	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.525	3.533	-0.008	88	34382	24.2	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73	4.663	4.659	0.004	50	91218	11.2	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78	6.993	6.995	-0.002	44	10176	0.7688	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130		7.725				ND	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91	9.049	9.045	0.004	28	2171	0.1460	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164		9.556				ND	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D10.D

Injection Date: 09-Aug-2017 05:40:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-1

Lab Sample ID: 180-69061-1

Worklist Smp#: 10

Client ID: HD-MW-109D-0/1-0

Purge Vol: 5.000 mL

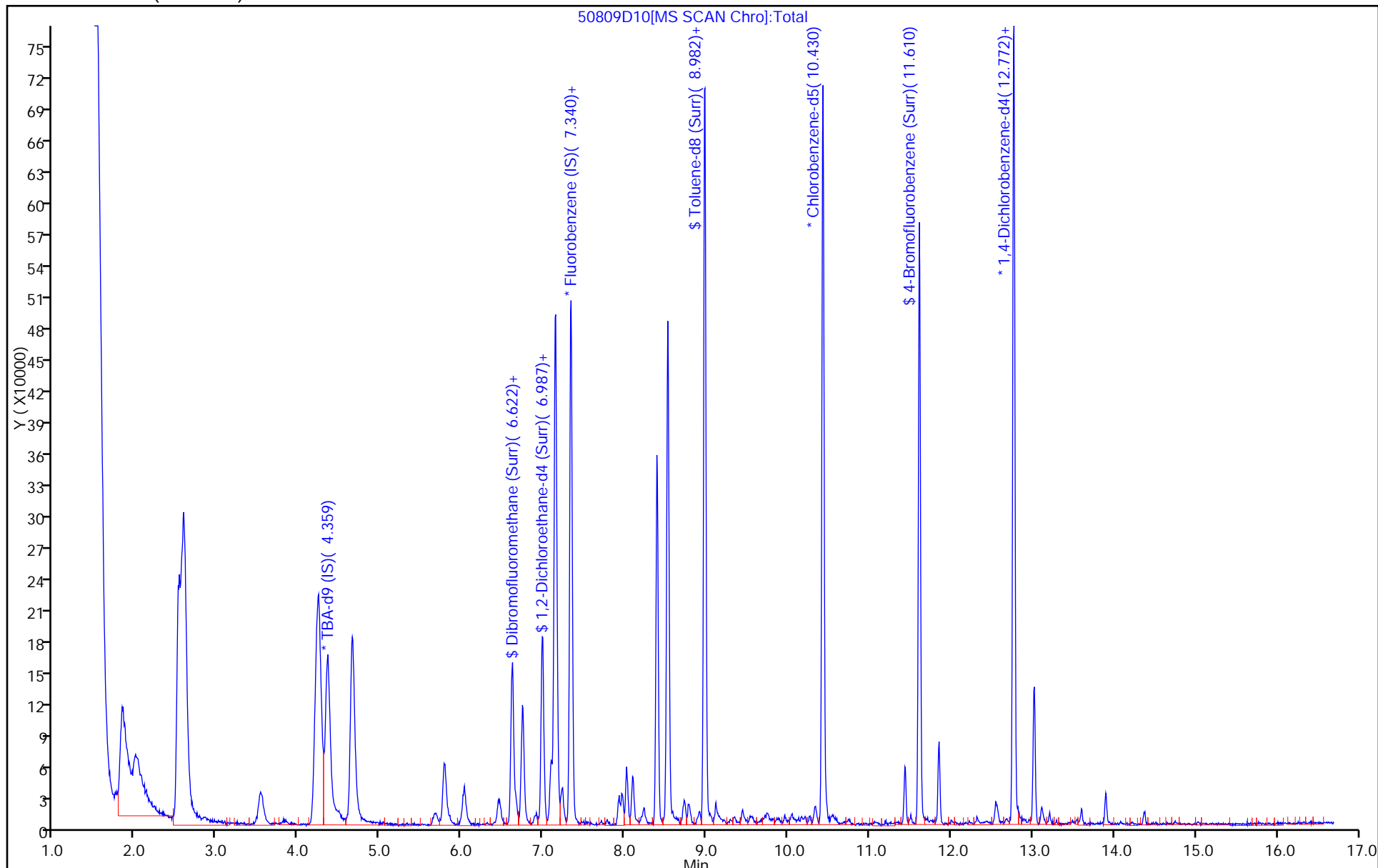
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D10.D  
 Lims ID: 180-69061-C-1  
 Client ID: HD-MW-109D-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 05:40:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-010  
 Misc. Info.: 180-69061-C-1  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 21:57:52

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	46.5	92.99
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.6	95.27
\$ 7 Toluene-d8 (Surr)	50.0	44.3	88.68
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.8	105.70

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D10.D

Injection Date: 09-Aug-2017 05:40:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-1

Lab Sample ID: 180-69061-1

Client ID: HD-MW-109D-0/1-0

Operator ID: 034635

ALS Bottle#: 10

Worklist Smp#: 10

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

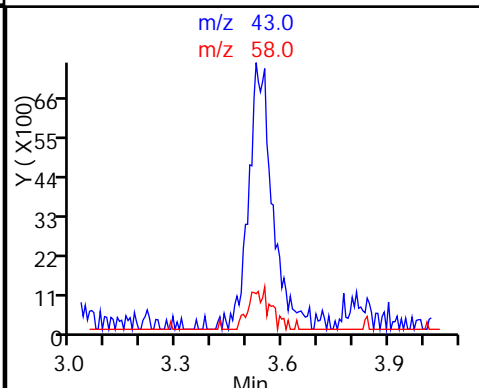
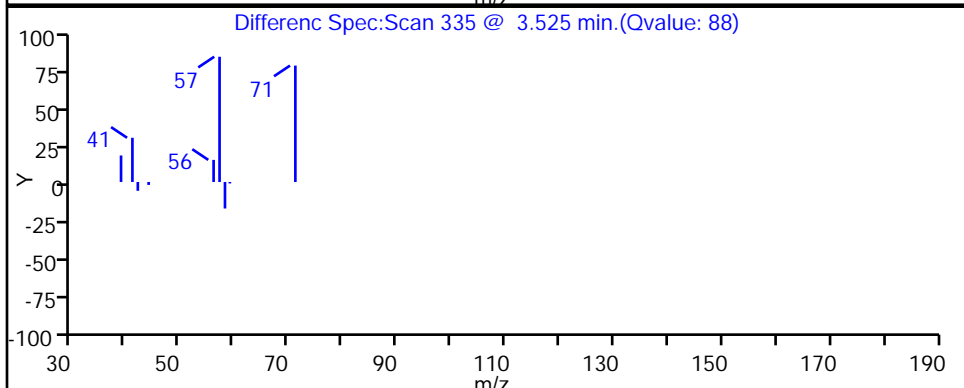
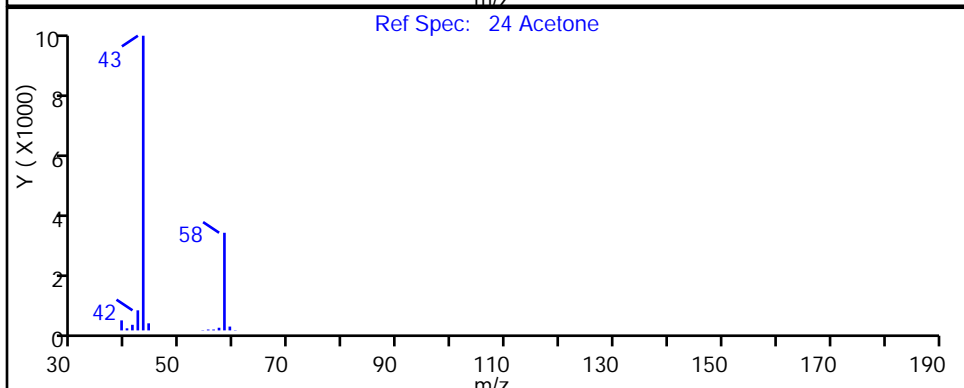
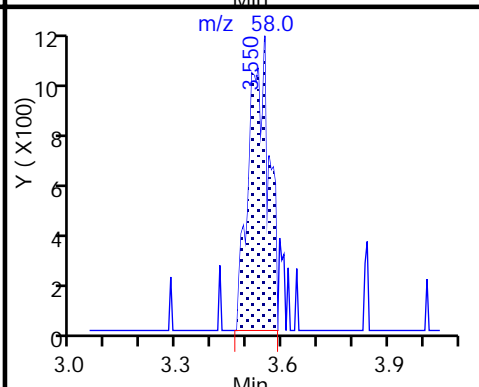
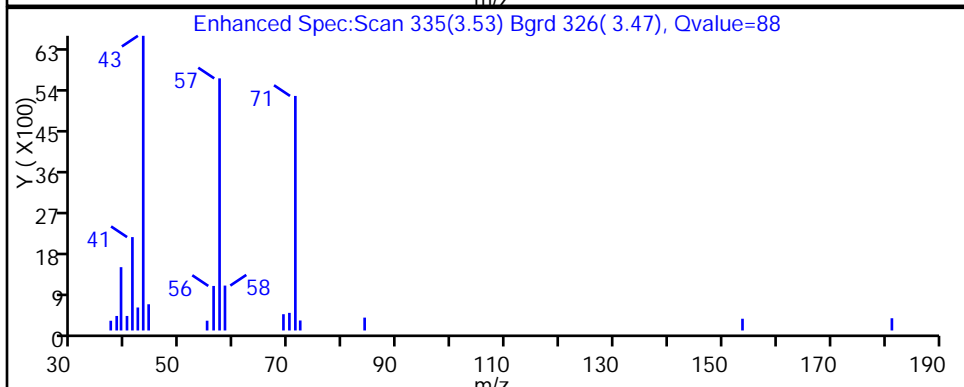
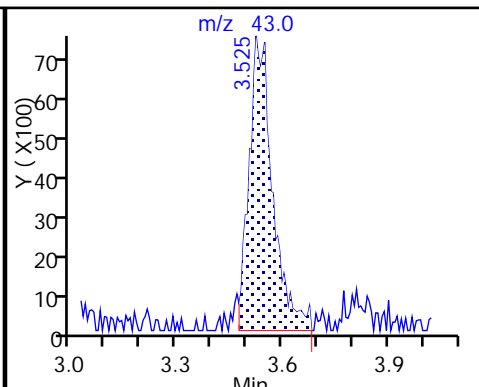
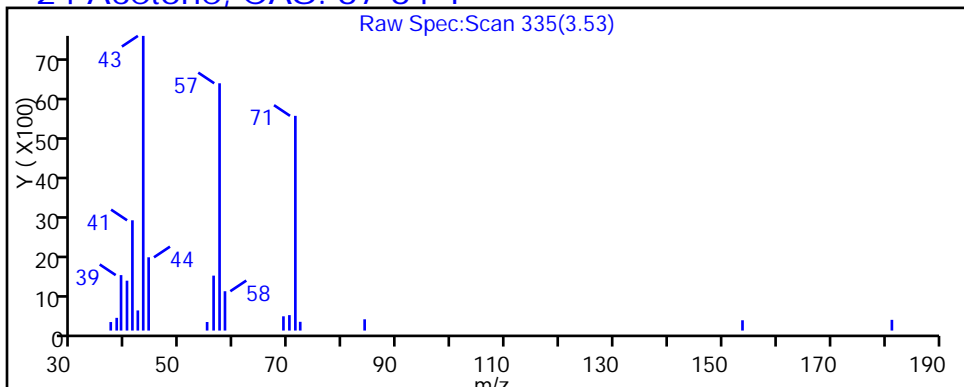
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D10.D

Injection Date: 09-Aug-2017 05:40:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-1

Lab Sample ID: 180-69061-1

Client ID: HD-MW-109D-0/1-0

Operator ID: 034635

ALS Bottle#: 10

Worklist Smp#: 10

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

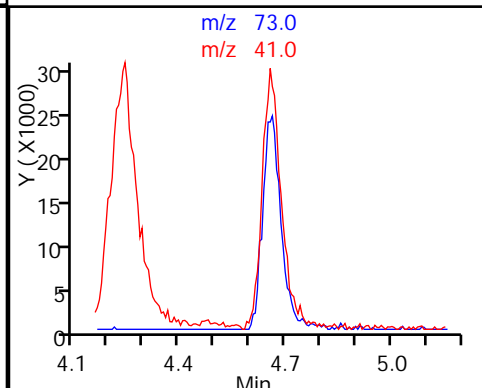
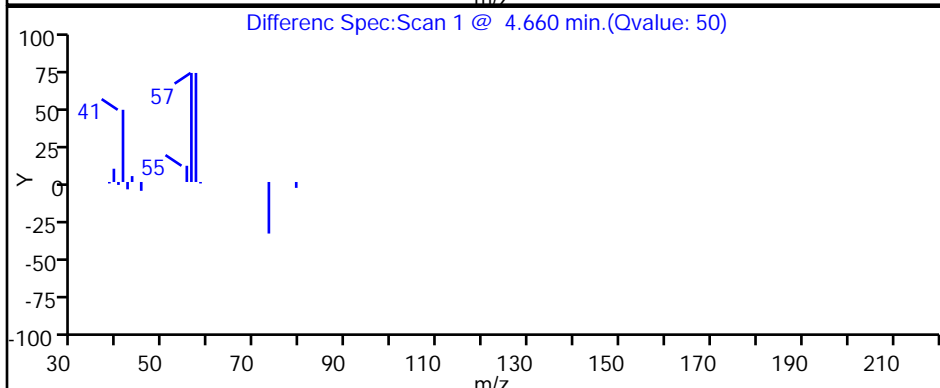
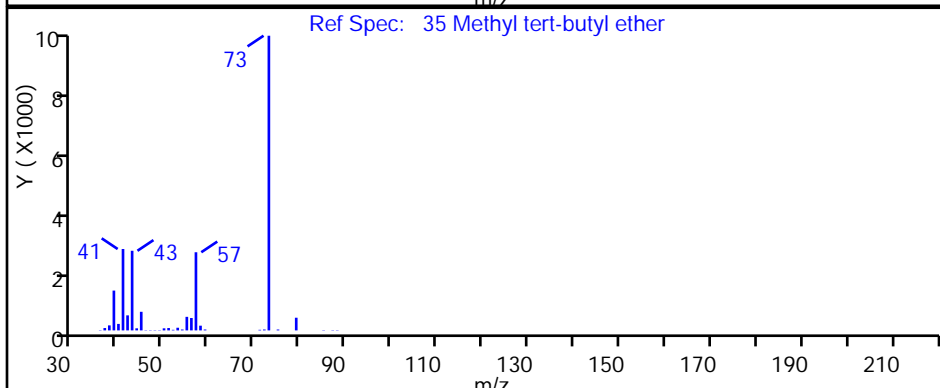
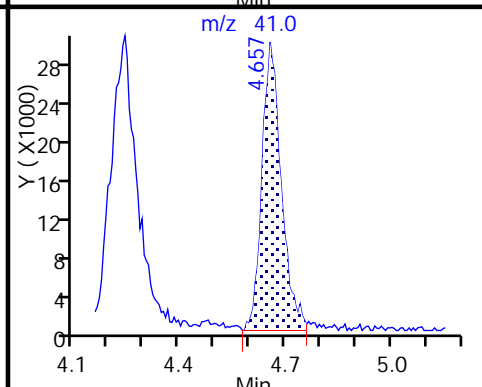
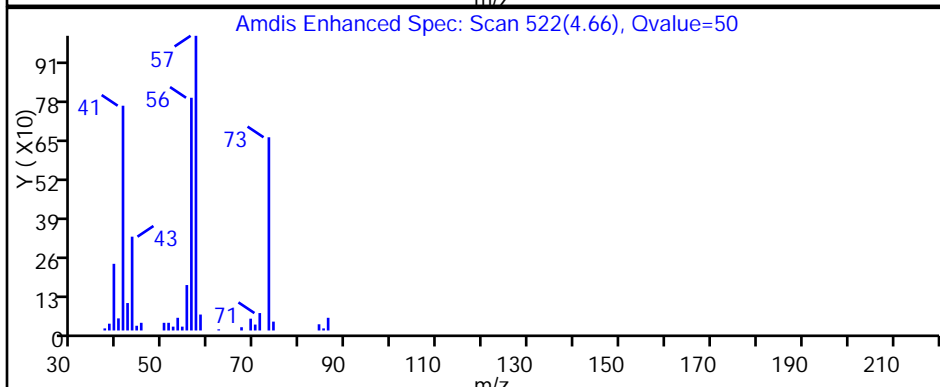
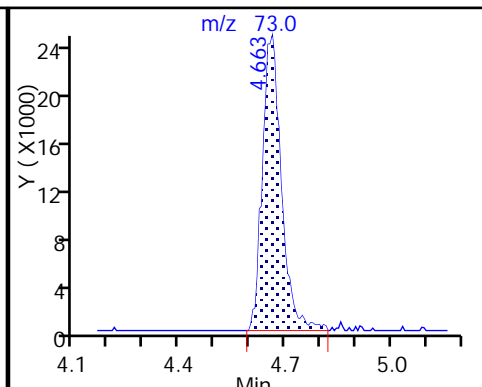
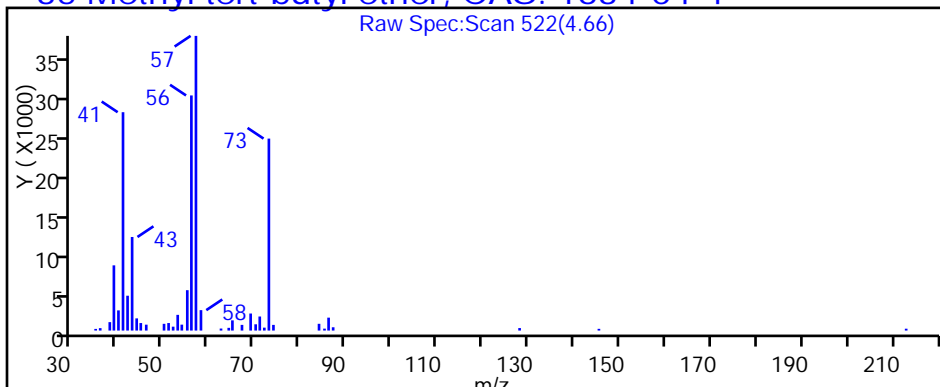
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

35 Methyl tert-butyl ether, CAS: 1634-04-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-175-0/1-0 Lab Sample ID: 180-69061-2  
 Matrix: Water Lab File ID: 50809D11.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 06:04  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	11		5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-175-0/1-0 Lab Sample ID: 180-69061-2  
 Matrix: Water Lab File ID: 50809D11.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 10:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 06:04  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	109		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D11.D  
 Lims ID: 180-69061-C-2  
 Client ID: HD-MW-175-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 06:04:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-011  
 Misc. Info.: 180-69061-C-2  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 21:58:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.346	4.373	-0.027	0	289347	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.336	0.003	99	511893	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.426	0.004	87	143885	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.768	0.004	96	228807	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.618	-0.003	93	119261	48.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.983	0.003	0	148974	49.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.978	0.004	93	497587	43.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.612	-0.002	85	225298	54.5	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.531	3.533	-0.002	100	76531	57.2	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43	6.025	6.022	0.003	59	22829	12.0	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130		7.725				ND	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43	8.878	8.875	0.003	93	4277	1.16	
76 Toluene	91	9.049	9.045	0.004	44	3475	0.2422	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164		9.556				ND	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D11.D

Injection Date: 09-Aug-2017 06:04:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-2

Lab Sample ID: 180-69061-2

Worklist Smp#: 11

Client ID: HD-MW-175-0/1-0

Purge Vol: 5.000 mL

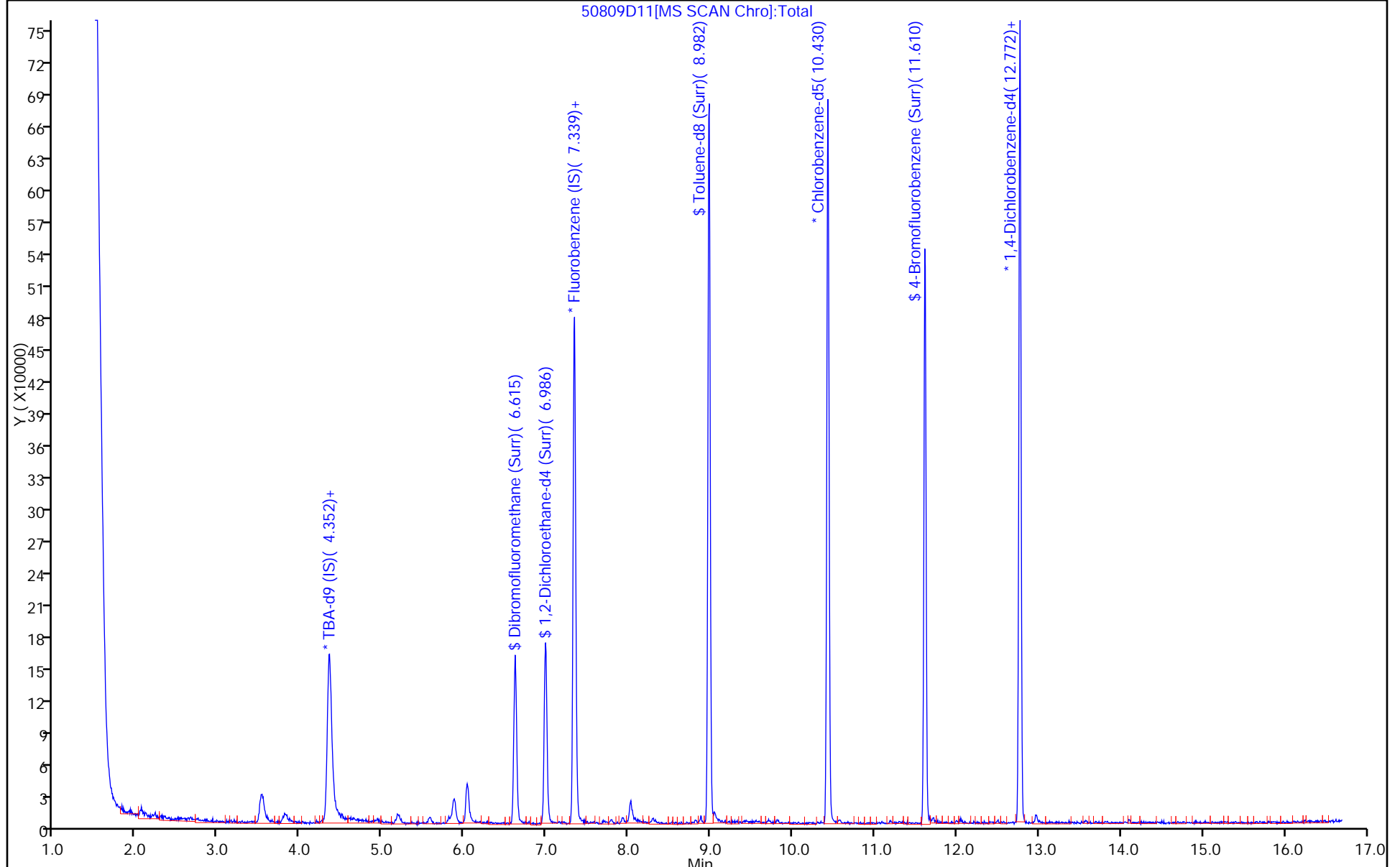
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D11.D  
 Lims ID: 180-69061-C-2  
 Client ID: HD-MW-175-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 06:04:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-011  
 Misc. Info.: 180-69061-C-2  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 21:58:33

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.4	96.84
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.6	99.18
\$ 7 Toluene-d8 (Surr)	50.0	43.5	86.90
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.5	108.95

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D11.D

Injection Date: 09-Aug-2017 06:04:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-2

Lab Sample ID: 180-69061-2

Client ID: HD-MW-175-0/1-0

Operator ID: 034635

ALS Bottle#: 11 Worklist Smp#: 11

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

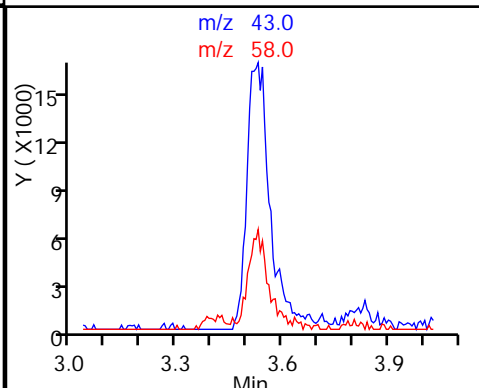
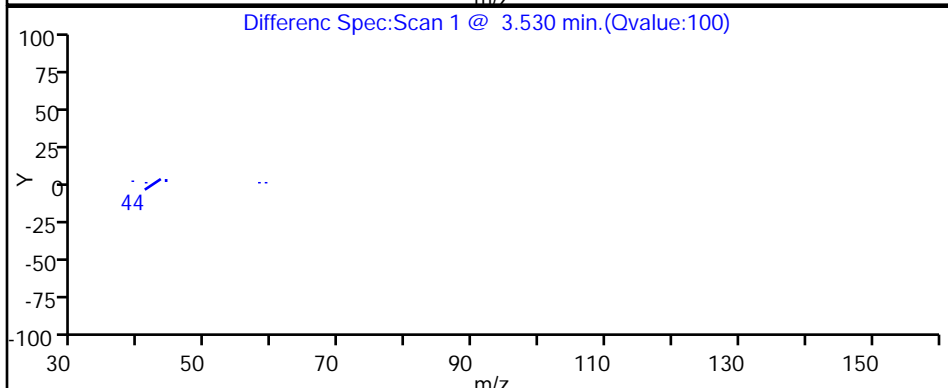
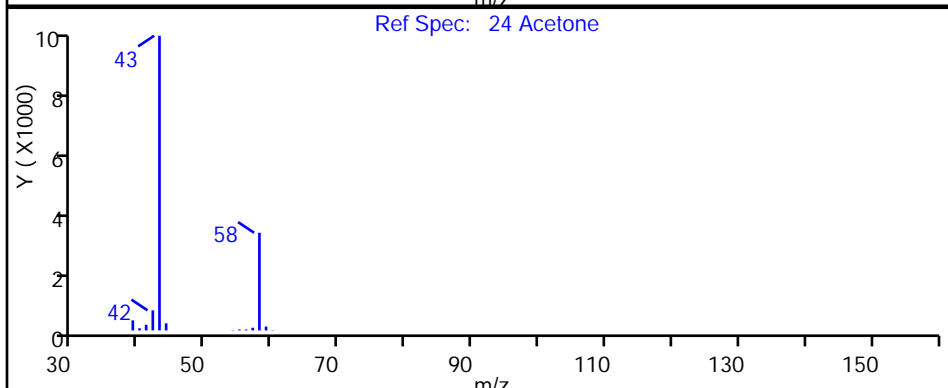
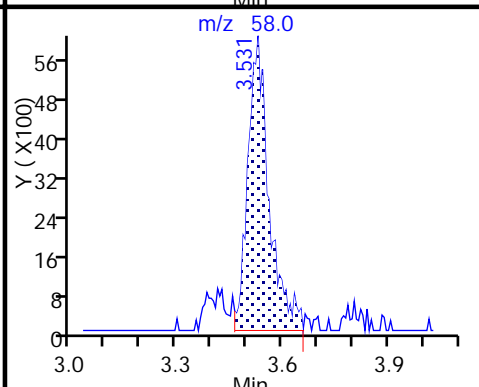
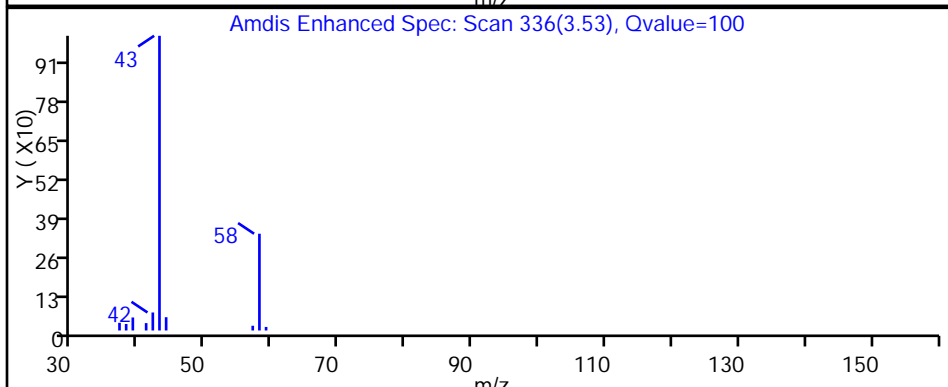
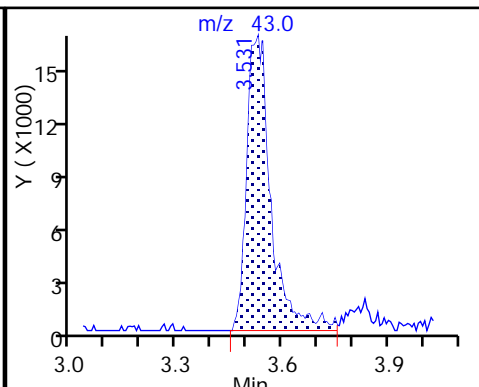
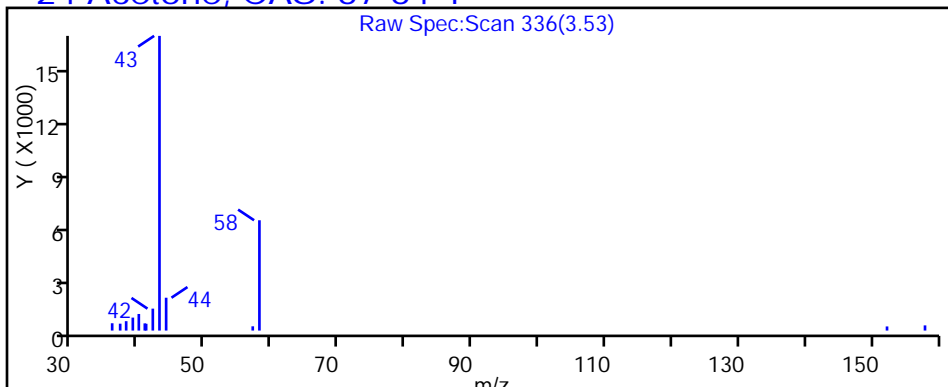
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 Lab Sample ID: 180-69061-3  
 Matrix: Water Lab File ID: 50809D12.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 09:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 06:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.9
75-01-4	Vinyl chloride	5.0	U	5.0	0.84
74-83-9	Bromomethane	5.0	U	5.0	2.9
75-00-3	Chloroethane	5.0	U	5.0	2.9
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.6
67-64-1	Acetone	25	U	25	16
75-15-0	Carbon disulfide	5.0	U ^c	5.0	2.6
75-09-2	Methylene Chloride	5.0	U	5.0	4.7
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	1.0
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.98
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.7
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	1.5
74-97-5	Bromochloromethane	5.0	U	5.0	1.8
78-93-3	2-Butanone (MEK)	25	U	25	13
67-66-3	Chloroform	5.0	U	5.0	1.3
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	2.8
71-43-2	Benzene	5.0	U	5.0	0.91
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.2
79-01-6	Trichloroethene	5.0	U	5.0	0.99
78-87-5	1,2-Dichloropropane	5.0	U	5.0	1.7
75-27-4	Bromodichloromethane	5.0	U	5.0	2.9
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	11
108-88-3	Toluene	5.0	U	5.0	0.78
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	1.1
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.5
127-18-4	Tetrachloroethene	2.2	J	5.0	1.2
591-78-6	2-Hexanone	25	U	25	10
124-48-1	Dibromochloromethane	5.0	U	5.0	2.2
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	2.6
108-90-7	Chlorobenzene	5.0	U	5.0	0.73
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.5
100-41-4	Ethylbenzene	5.0	U	5.0	1.3
1330-20-7	Xylenes, Total	10	U	10	1.4
100-42-5	Styrene	5.0	U	5.0	1.1

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-164-0/1-0 Lab Sample ID: 180-69061-3  
 Matrix: Water Lab File ID: 50809D12.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 09:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 06:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	3.8
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.9
107-13-1	Acrylonitrile	100	U	100	17
123-91-1	1,4-Dioxane	1000	U	1000	78

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D12.D  
 Lims ID: 180-69061-C-3  
 Client ID: HD-MW-164-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 06:28:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-012  
 Misc. Info.: 180-69061-C-3  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:00:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.373	-0.020	0	256593	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.336	-0.002	98	500384	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.426	0.004	86	135929	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.768	0.004	96	213172	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.618	-0.002	93	116181	48.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.983	0.004	0	145534	49.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.978	0.004	93	479810	44.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.612	-0.002	87	203158	52.0	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.538	3.533	0.005	75	9793	7.48	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130	7.723	7.725	-0.002	91	2076	0.6780	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.554	9.556	-0.002	95	5583	2.16	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D12.D

Injection Date: 09-Aug-2017 06:28:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-3

Lab Sample ID: 180-69061-3

Worklist Smp#: 12

Client ID: HD-MW-164-0/1-0

Purge Vol: 5.000 mL

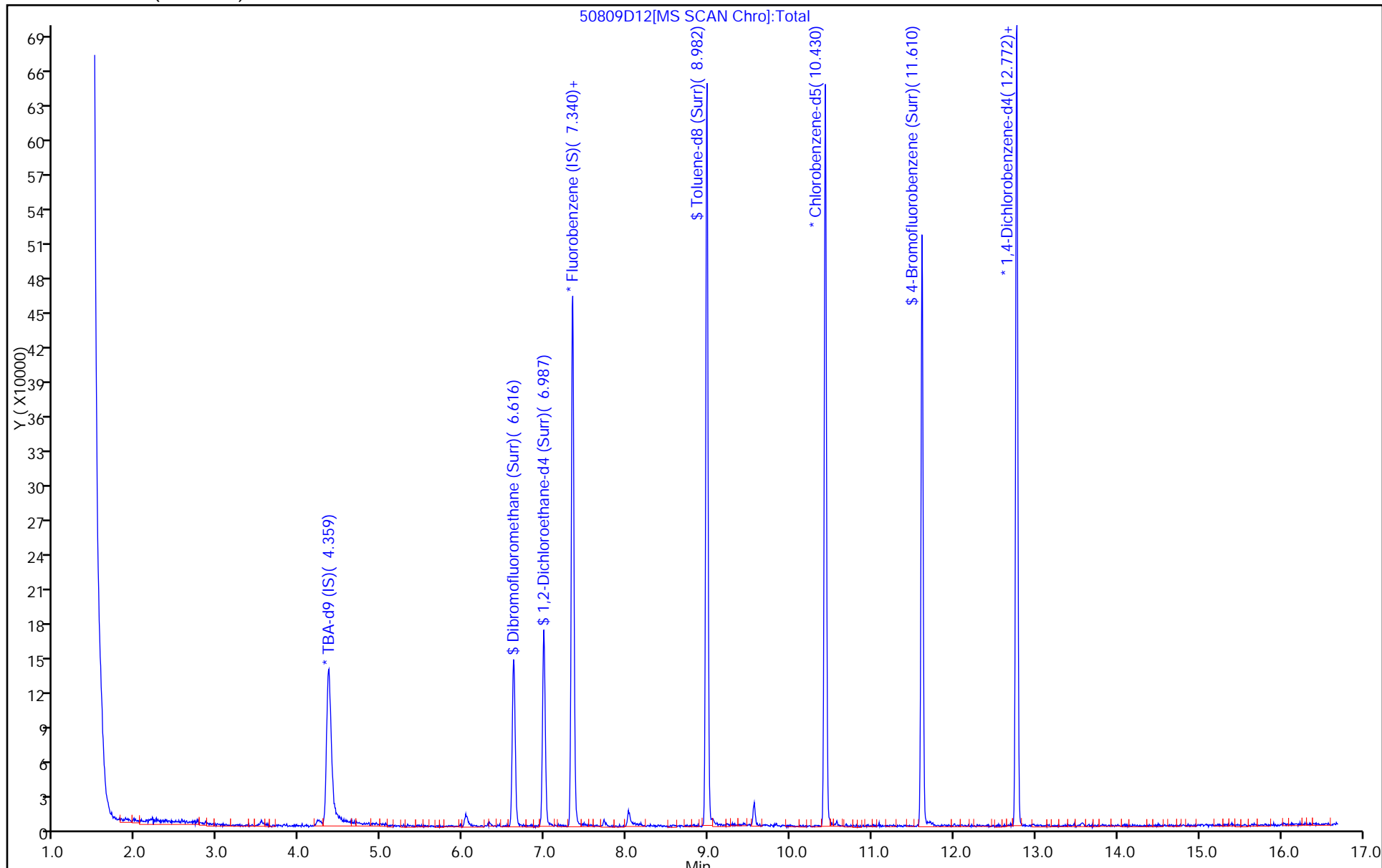
Dil. Factor: 5.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D12.D  
 Lims ID: 180-69061-C-3  
 Client ID: HD-MW-164-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 06:28:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-012  
 Misc. Info.: 180-69061-C-3  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 22:00:50

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.3	96.51
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.6	99.12
\$ 7 Toluene-d8 (Surr)	50.0	44.4	88.70
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.0	103.99

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D12.D

Injection Date: 09-Aug-2017 06:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-3

Lab Sample ID: 180-69061-3

Client ID: HD-MW-164-0/1-0

Operator ID: 034635

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

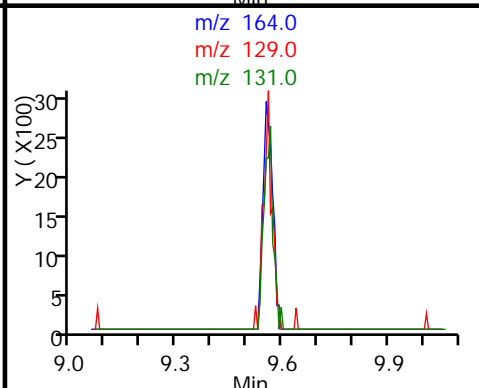
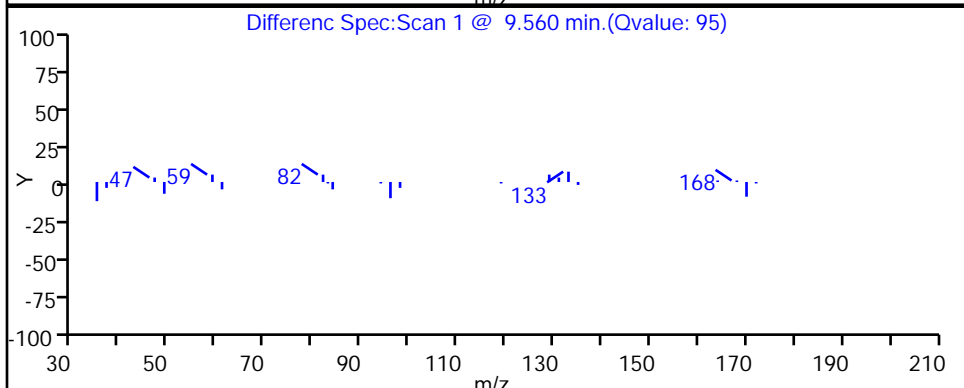
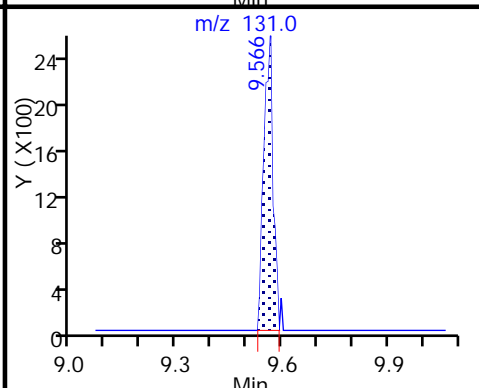
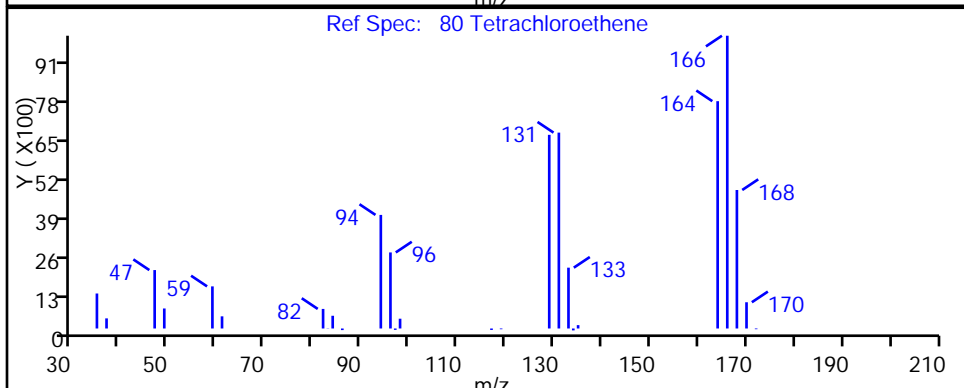
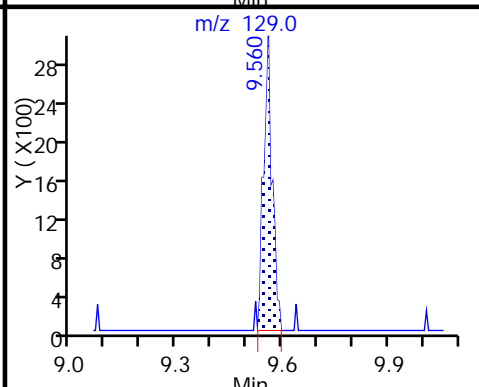
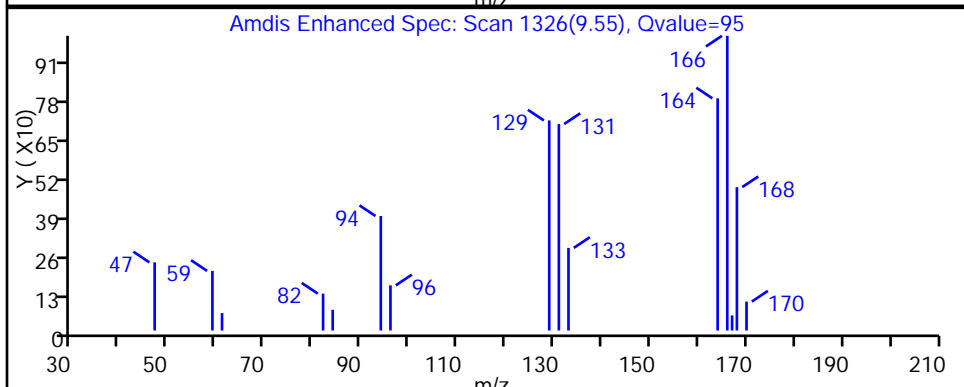
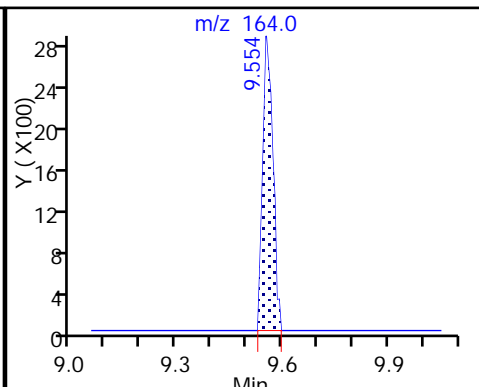
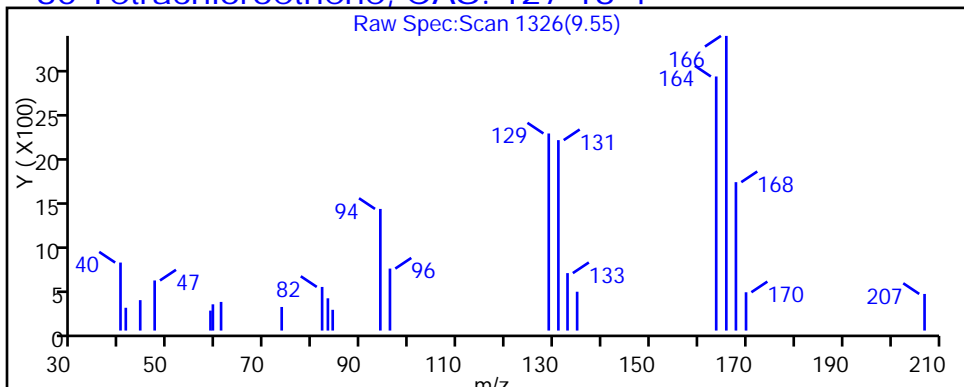
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-169-0/1-0 Lab Sample ID: 180-69061-4  
 Matrix: Water Lab File ID: 50809D13.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 11:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 06:52  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-169-0/1-0 Lab Sample ID: 180-69061-4  
 Matrix: Water Lab File ID: 50809D13.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 11:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 06:52  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D13.D  
 Lims ID: 180-69061-C-4  
 Client ID: HD-MW-169-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 06:52:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-013  
 Misc. Info.: 180-69061-C-4  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:01:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.362	4.373	-0.011	0	267353	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.336	0.001	99	492203	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.426	0.001	86	134664	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.768	0.001	96	215019	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.619	6.618	0.001	93	115215	48.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.983	0.001	0	144216	49.9	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.978	0.001	93	463532	43.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	87	199574	51.6	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.541	3.533	0.008	75	7511	5.84	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130		7.725				ND	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164		9.556				ND	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D13.D

Injection Date: 09-Aug-2017 06:52:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-4

Lab Sample ID: 180-69061-4

Worklist Smp#: 13

Client ID: HD-MW-169-0/1-0

Purge Vol: 5.000 mL

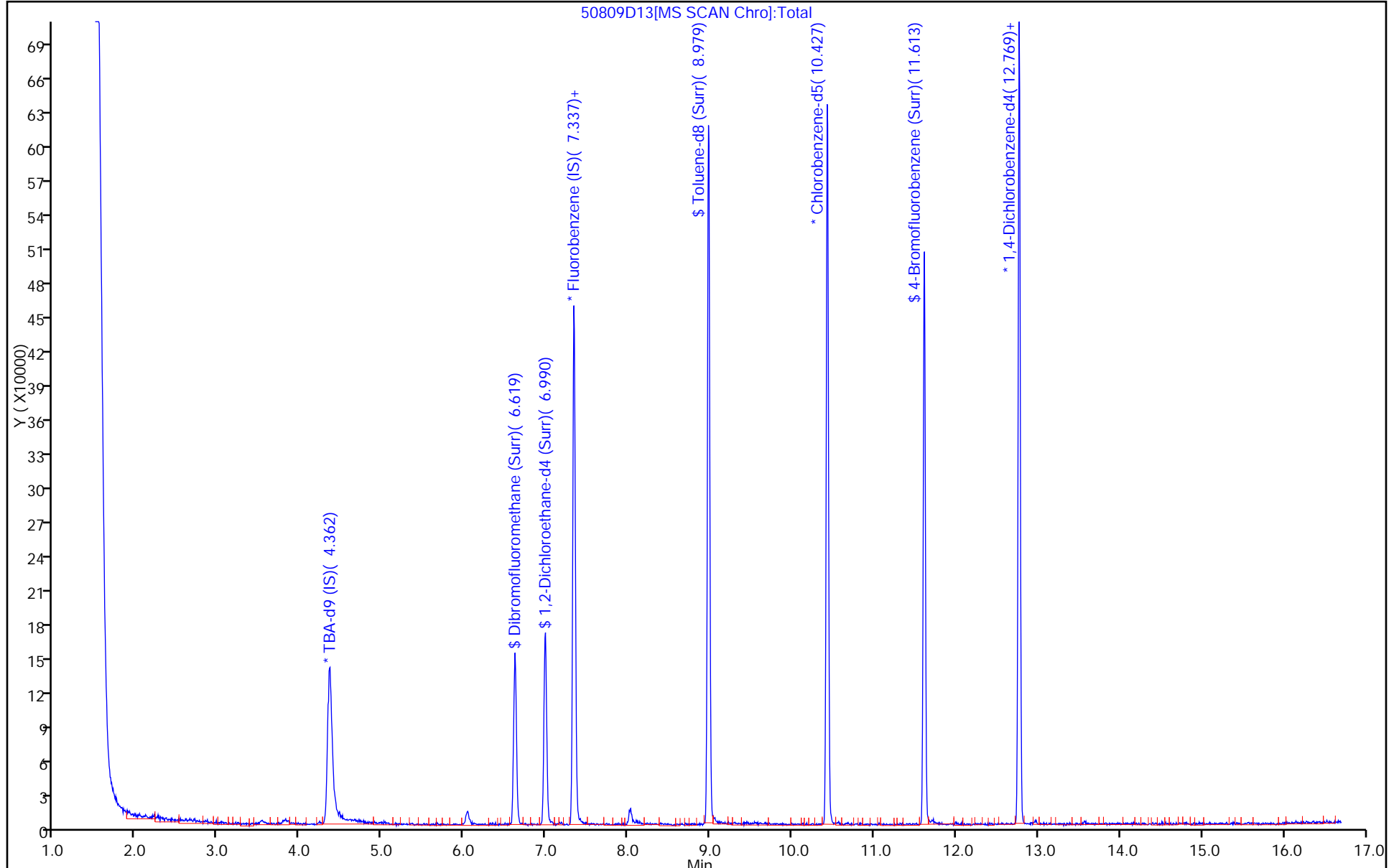
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D13.D  
 Lims ID: 180-69061-C-4  
 Client ID: HD-MW-169-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 06:52:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-013  
 Misc. Info.: 180-69061-C-4  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 22:01:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.7	97.30
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.9	99.86
\$ 7 Toluene-d8 (Surr)	50.0	43.2	86.50
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.6	103.12

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-170-0/1-0 Lab Sample ID: 180-69061-5  
 Matrix: Water Lab File ID: 50809D14.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 07:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-170-0/1-0 Lab Sample ID: 180-69061-5  
 Matrix: Water Lab File ID: 50809D14.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 09:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 07:15  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	88		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D14.D  
 Lims ID: 180-69061-C-5  
 Client ID: HD-MW-170-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 07:15:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-014  
 Misc. Info.: 180-69061-C-5  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:02:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.359	4.373	-0.014	0	277466	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.336	-0.002	98	508798	50.0	
* 3 Chlorobenzene-d5	119	10.424	10.426	-0.002	86	138713	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.768	0.005	96	219113	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.610	6.618	-0.008	93	120026	49.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.983	0.004	0	147658	49.5	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.978	0.005	93	486428	44.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.612	-0.001	87	206321	51.7	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.532	3.533	-0.001	29	7775	5.84	M
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130		7.725				ND	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164		9.556				ND	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D14.D

Injection Date: 09-Aug-2017 07:15:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-5

Lab Sample ID: 180-69061-5

Worklist Smp#: 14

Client ID: HD-MW-170-0/1-0

Purge Vol: 5.000 mL

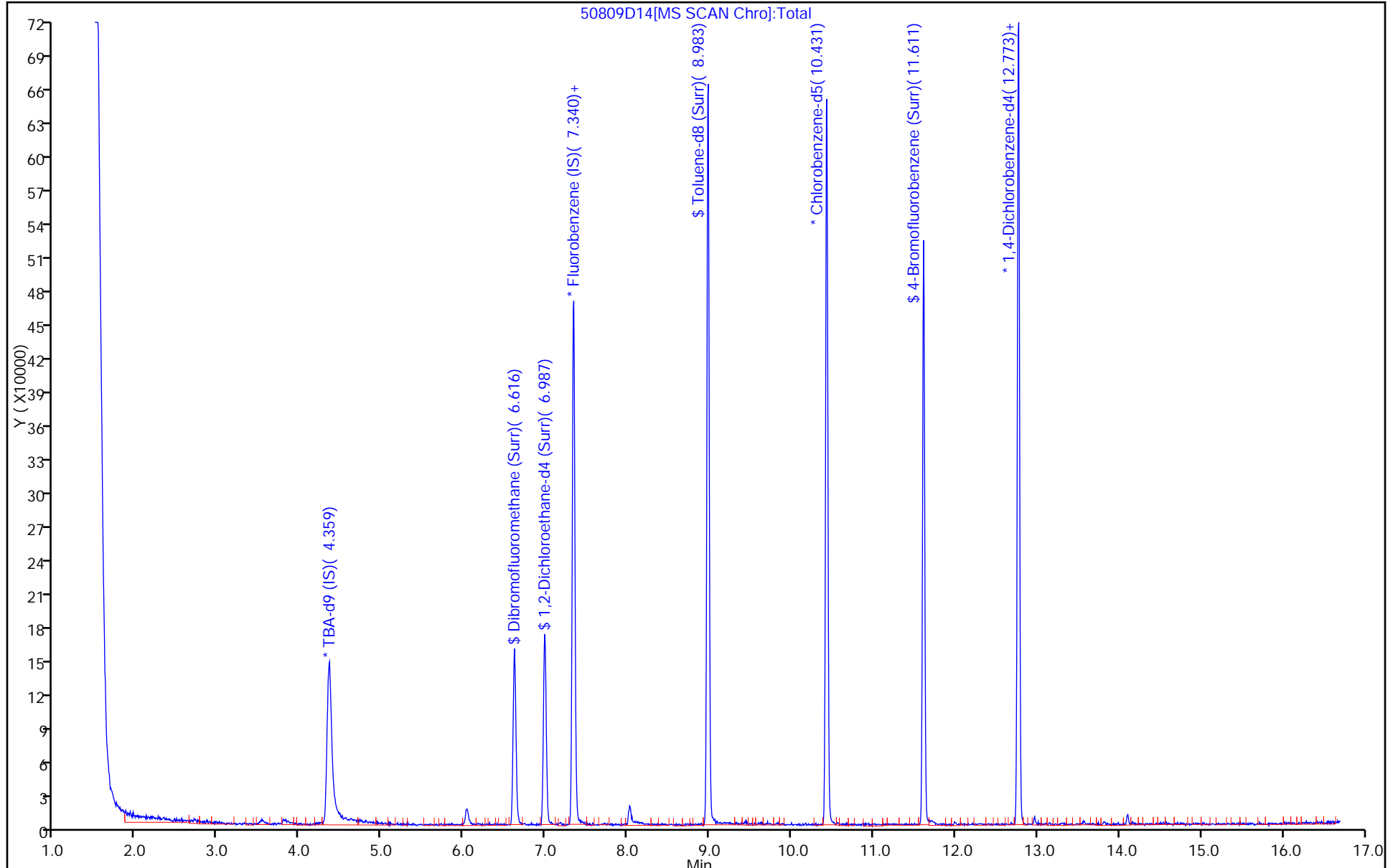
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D14.D  
 Lims ID: 180-69061-C-5  
 Client ID: HD-MW-170-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 07:15:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-014  
 Misc. Info.: 180-69061-C-5  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 22:02:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.0	98.06
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.5	98.91
\$ 7 Toluene-d8 (Surr)	50.0	44.1	88.12
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.7	103.49



TestAmerica Pittsburgh

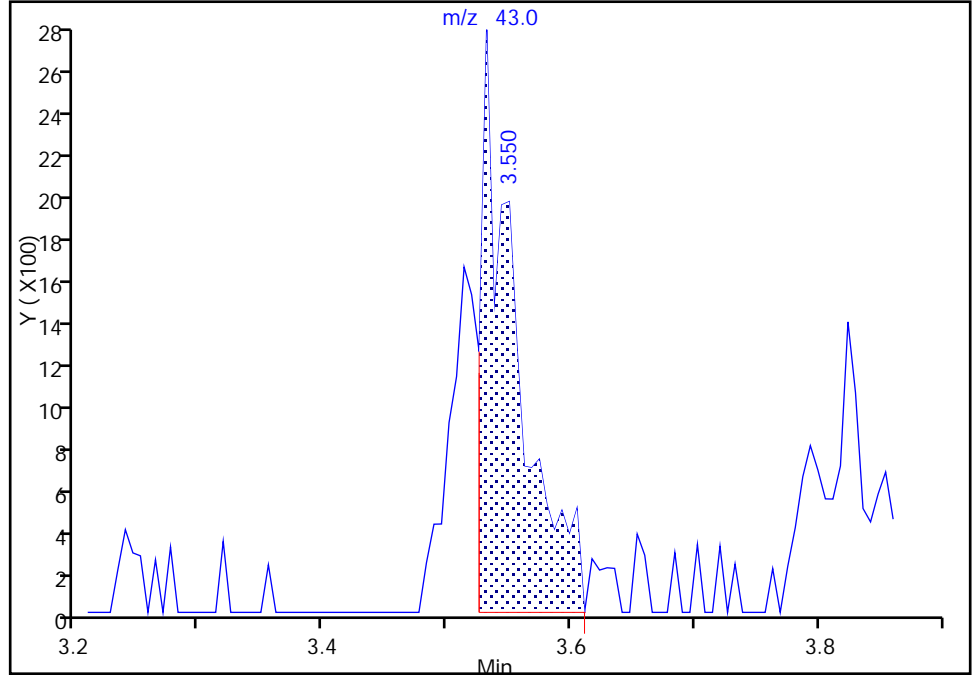
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D14.D  
Injection Date: 09-Aug-2017 07:15:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-5 Lab Sample ID: 180-69061-5  
Client ID: HD-MW-170-0/1-0  
Operator ID: 034635 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

Signal: 1

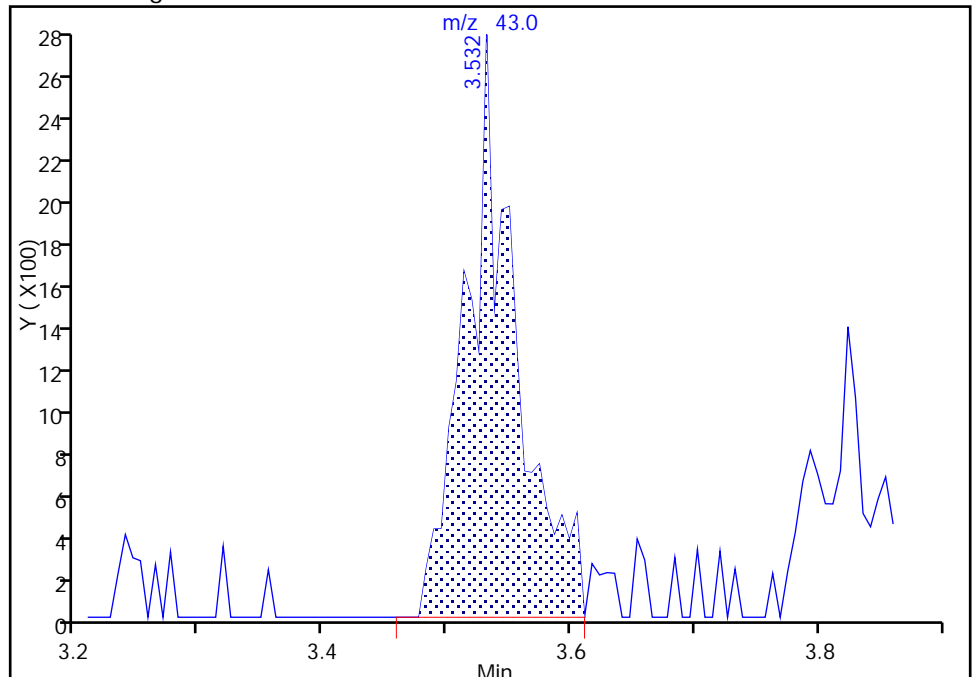
RT: 3.55  
Area: 5483  
Amount: 4.120846  
Amount Units: ng

Processing Integration Results



RT: 3.53  
Area: 7775  
Amount: 5.843440  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Aug-2017 22:02:23  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-174-0/1-0 Lab Sample ID: 180-69061-6  
 Matrix: Water Lab File ID: 50809D16.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 10:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 08:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	0.57	J	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-174-0/1-0 Lab Sample ID: 180-69061-6  
 Matrix: Water Lab File ID: 50809D16.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 10:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 08:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D16.D  
 Lims ID: 180-69061-C-6  
 Client ID: HD-MW-174-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 08:03:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-016  
 Misc. Info.: 180-69061-C-6  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:04:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.373	-0.019	0	273114	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	99	494791	50.0	
* 3 Chlorobenzene-d5	119	10.425	10.426	-0.001	85	140084	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.768	-0.001	96	216779	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.617	6.618	-0.001	92	119976	50.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.983	-0.001	0	142962	49.2	
\$ 7 Toluene-d8 (Surr)	98	8.977	8.978	-0.001	93	479210	43.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.612	-0.001	87	201095	49.9	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.526	3.533	-0.007	83	9265	7.16	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83	6.440	6.435	0.005	15	1156	0.2412	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130	7.718	7.725	-0.007	90	1702	0.5622	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.561	9.556	0.005	94	7592	2.85	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D16.D

Injection Date: 09-Aug-2017 08:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-6

Lab Sample ID: 180-69061-6

Worklist Smp#: 16

Client ID: HD-MW-174-0/1-0

Purge Vol: 5.000 mL

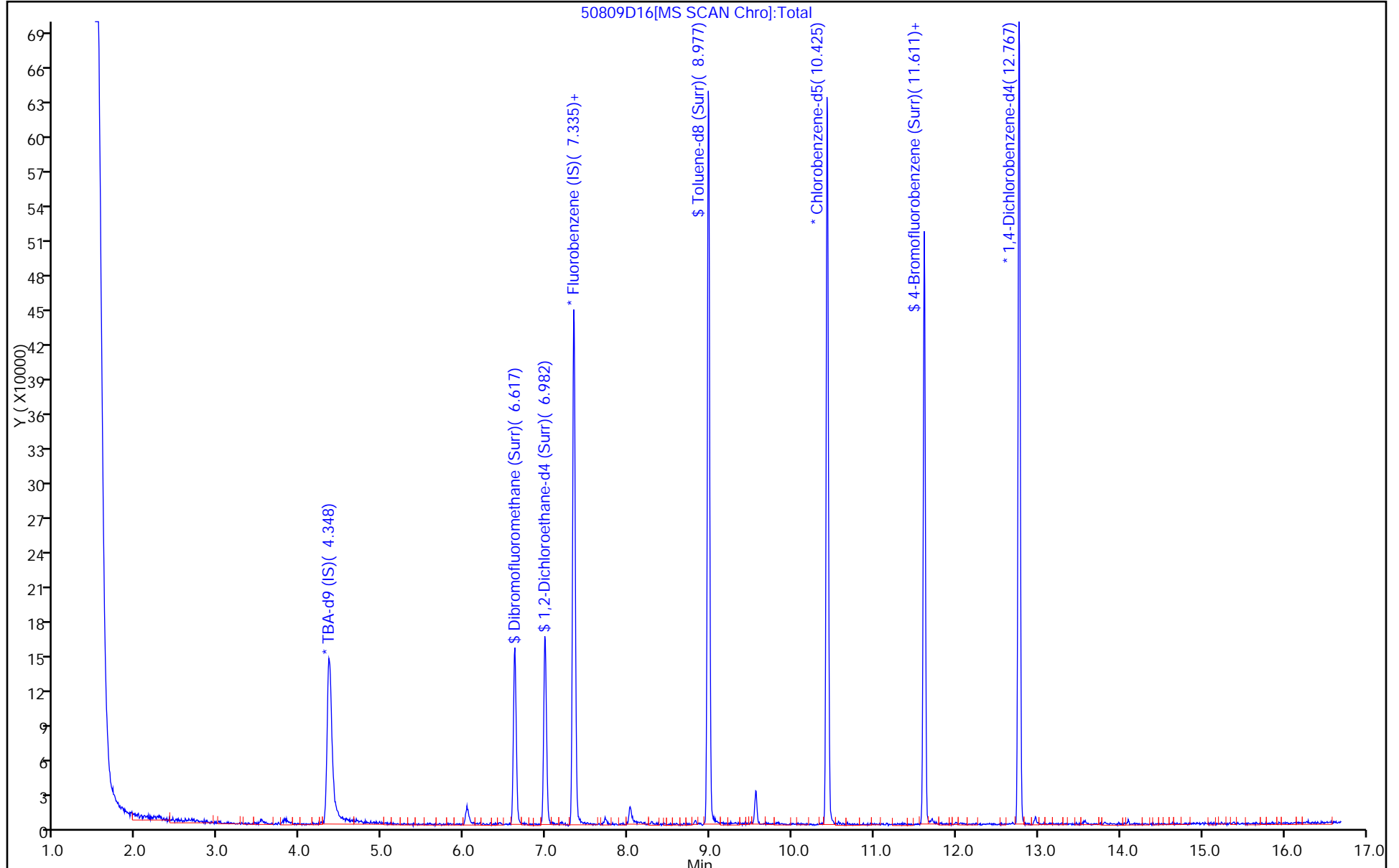
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D16.D  
 Lims ID: 180-69061-C-6  
 Client ID: HD-MW-174-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 08:03:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-016  
 Misc. Info.: 180-69061-C-6  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:04:50

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.4	100.79
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.2	98.47
\$ 7 Toluene-d8 (Surr)	50.0	43.0	85.97
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.9	99.88

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D16.D

Injection Date: 09-Aug-2017 08:03:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-6

Lab Sample ID: 180-69061-6

Client ID: HD-MW-174-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

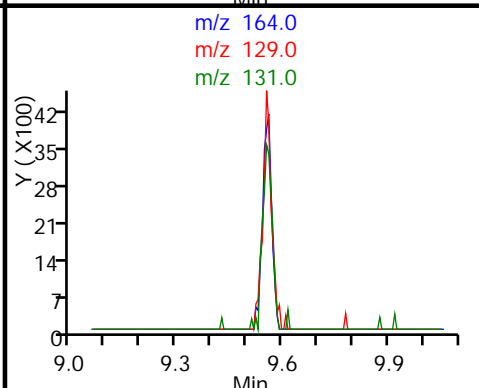
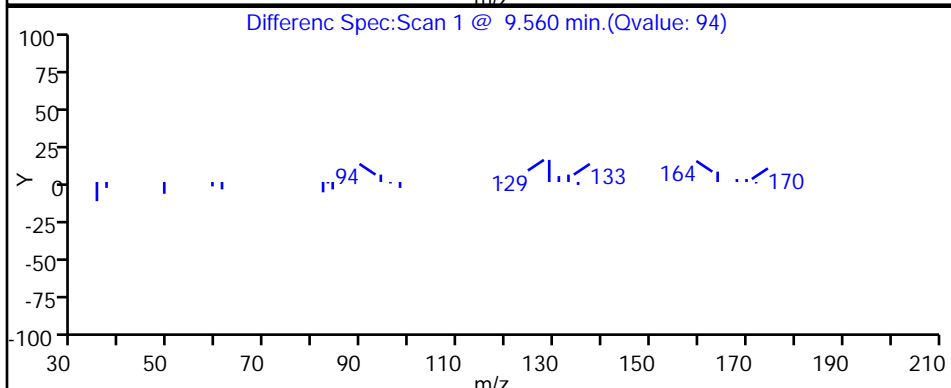
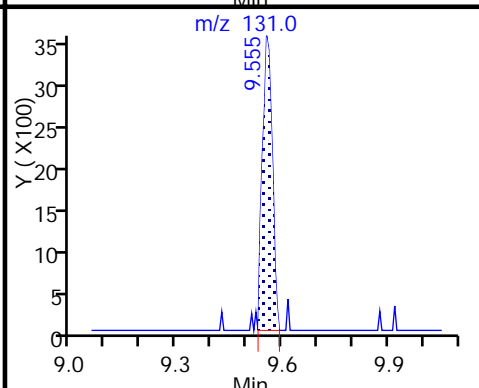
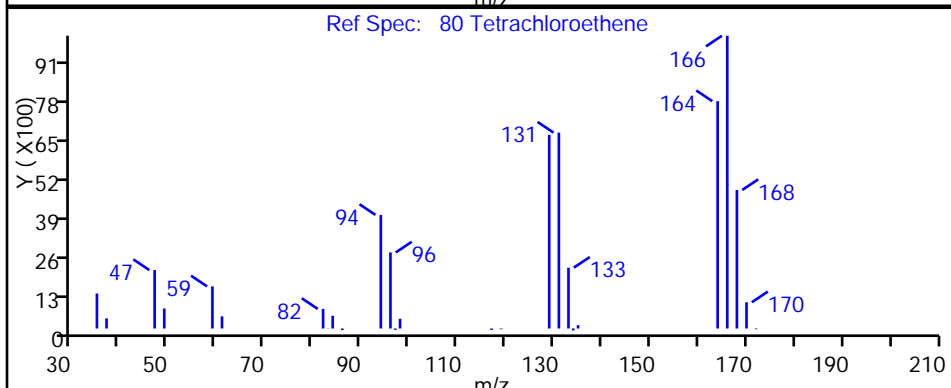
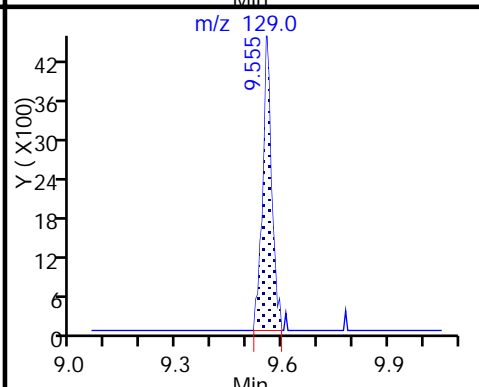
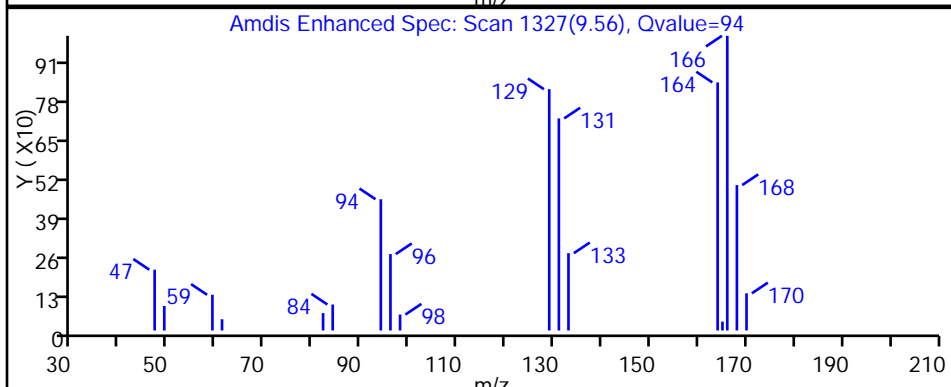
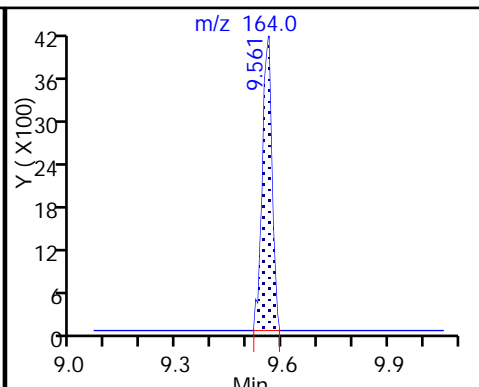
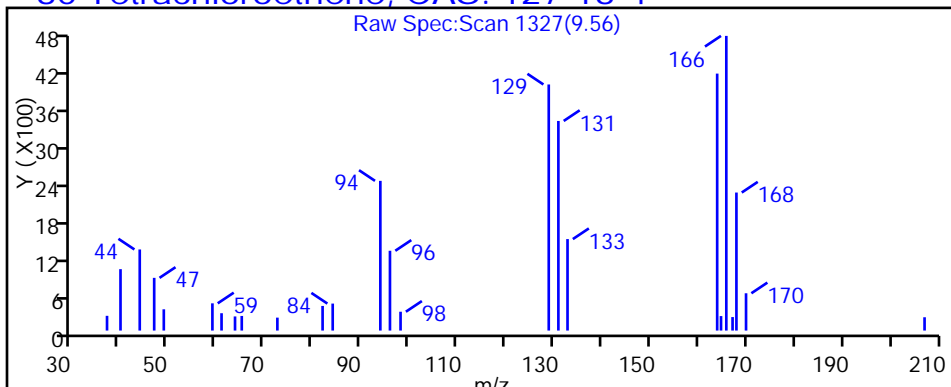
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-167-0/1-0 Lab Sample ID: 180-69061-7  
 Matrix: Water Lab File ID: 50809D17.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 13:05  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 08:27  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.7		1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	5.3		1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-167-0/1-0 Lab Sample ID: 180-69061-7  
 Matrix: Water Lab File ID: 50809D17.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 13:05  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 08:27  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D17.D  
 Lims ID: 180-69061-C-7  
 Client ID: HD-MW-167-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 08:27:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-017  
 Misc. Info.: 180-69061-C-7  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:05:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.349	4.373	-0.024	0	248461	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.336	0.000	99	493267	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.426	0.007	85	140383	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.768	0.001	96	214223	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.618	0.000	93	117541	49.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.983	0.000	0	146248	50.5	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.978	0.001	93	474152	42.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	87	202485	50.2	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43		3.533				ND	
26 Carbon disulfide	76	3.698	3.698	0.000	55	4814	0.9083	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83	6.442	6.435	0.007	13	3361	0.7035	M
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130	7.725	7.725	0.000	97	26077	8.64	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.563	9.556	0.007	96	71180	26.7	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D17.D

Injection Date: 09-Aug-2017 08:27:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-7

Lab Sample ID: 180-69061-7

Worklist Smp#: 17

Client ID: HD-MW-167-0/1-0

Purge Vol: 5.000 mL

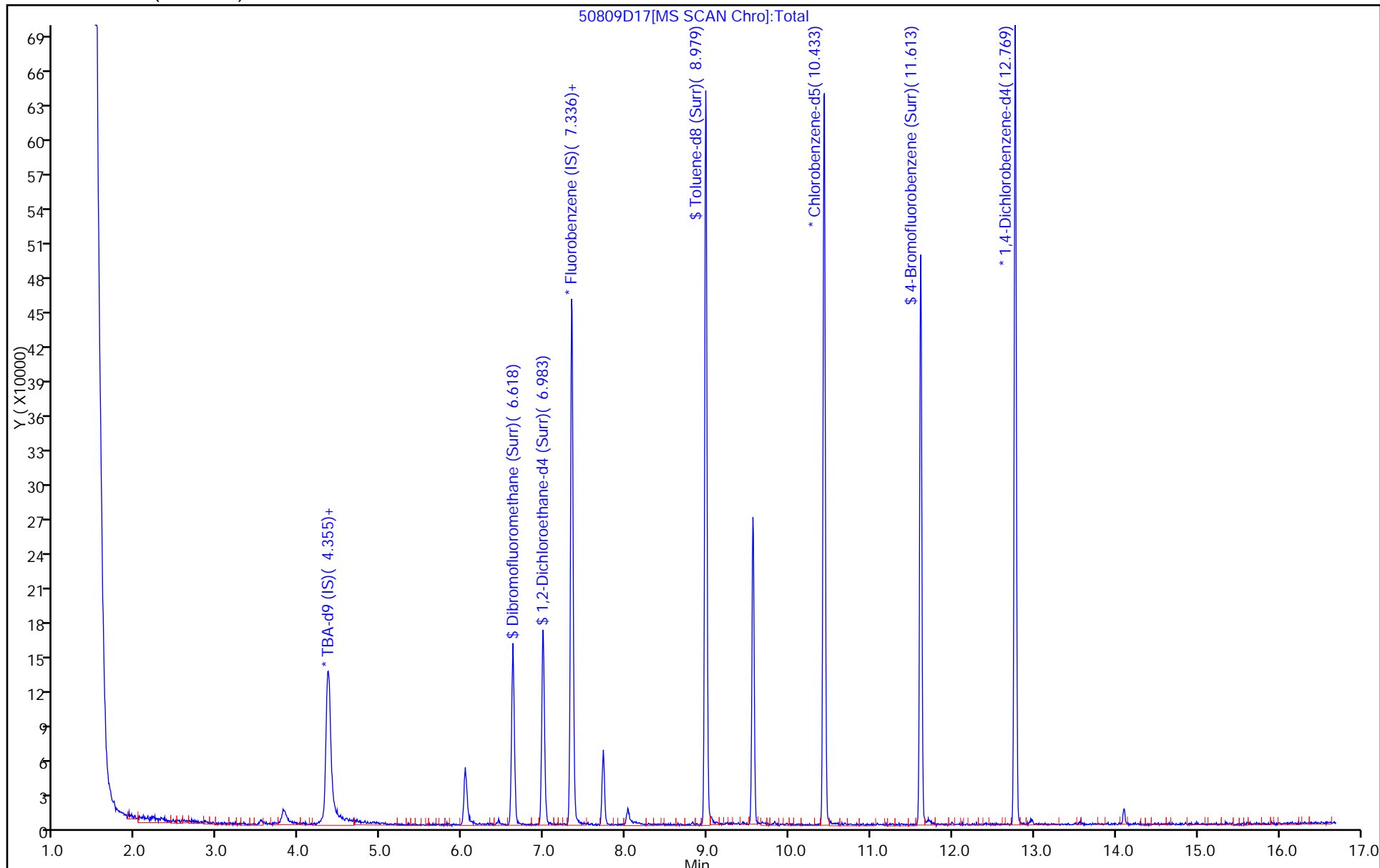
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D17.D  
 Lims ID: 180-69061-C-7  
 Client ID: HD-MW-167-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 08:27:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-017  
 Misc. Info.: 180-69061-C-7  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:05:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.5	99.05
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.5	101.05
\$ 7 Toluene-d8 (Surr)	50.0	42.4	84.88
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.2	100.36

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D17.D

Injection Date: 09-Aug-2017 08:27:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-7

Lab Sample ID: 180-69061-7

Client ID: HD-MW-167-0/1-0

Operator ID: 034635

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

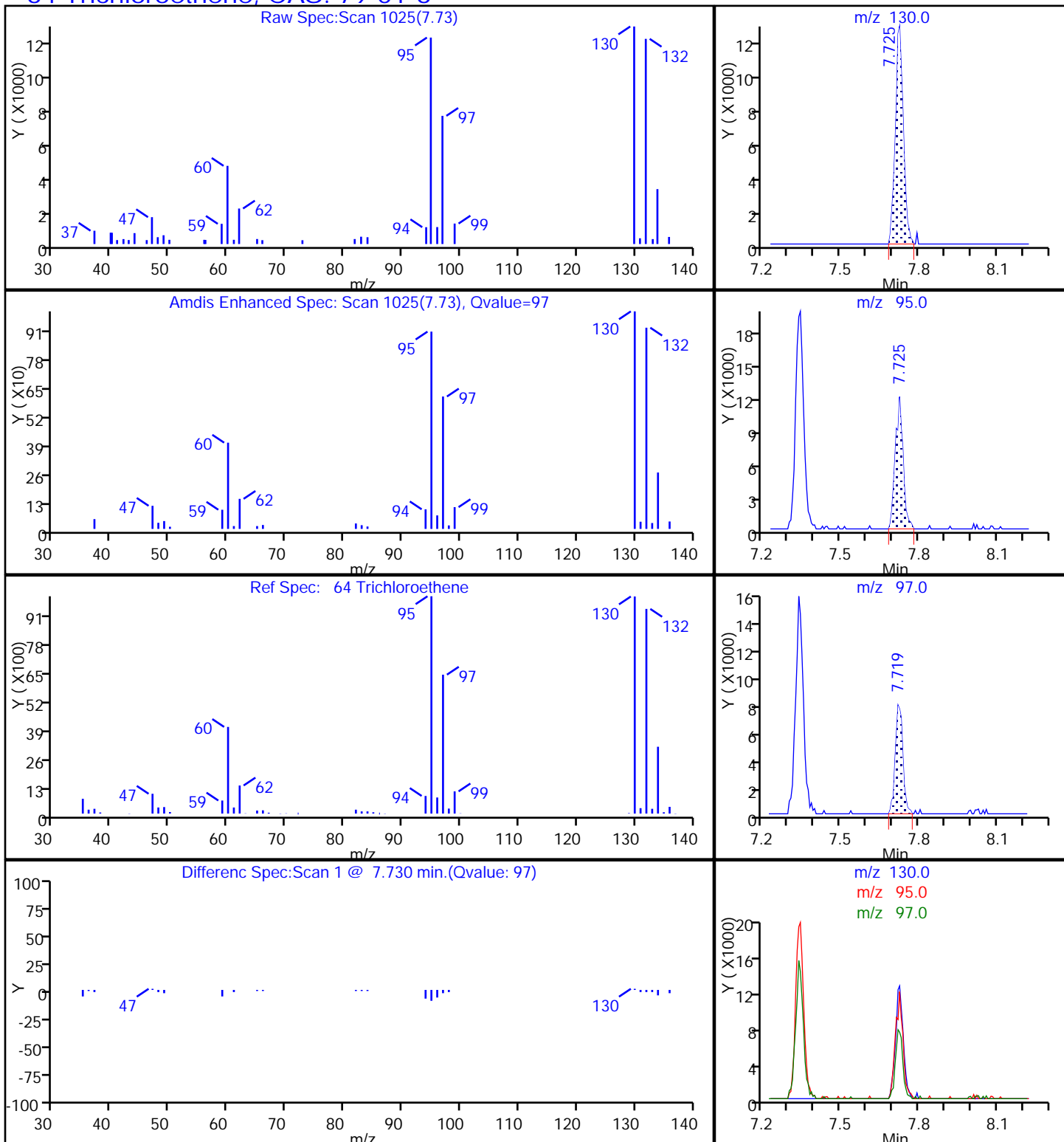
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D17.D

Injection Date: 09-Aug-2017 08:27:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-7

Lab Sample ID: 180-69061-7

Client ID: HD-MW-167-0/1-0

Operator ID: 034635

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

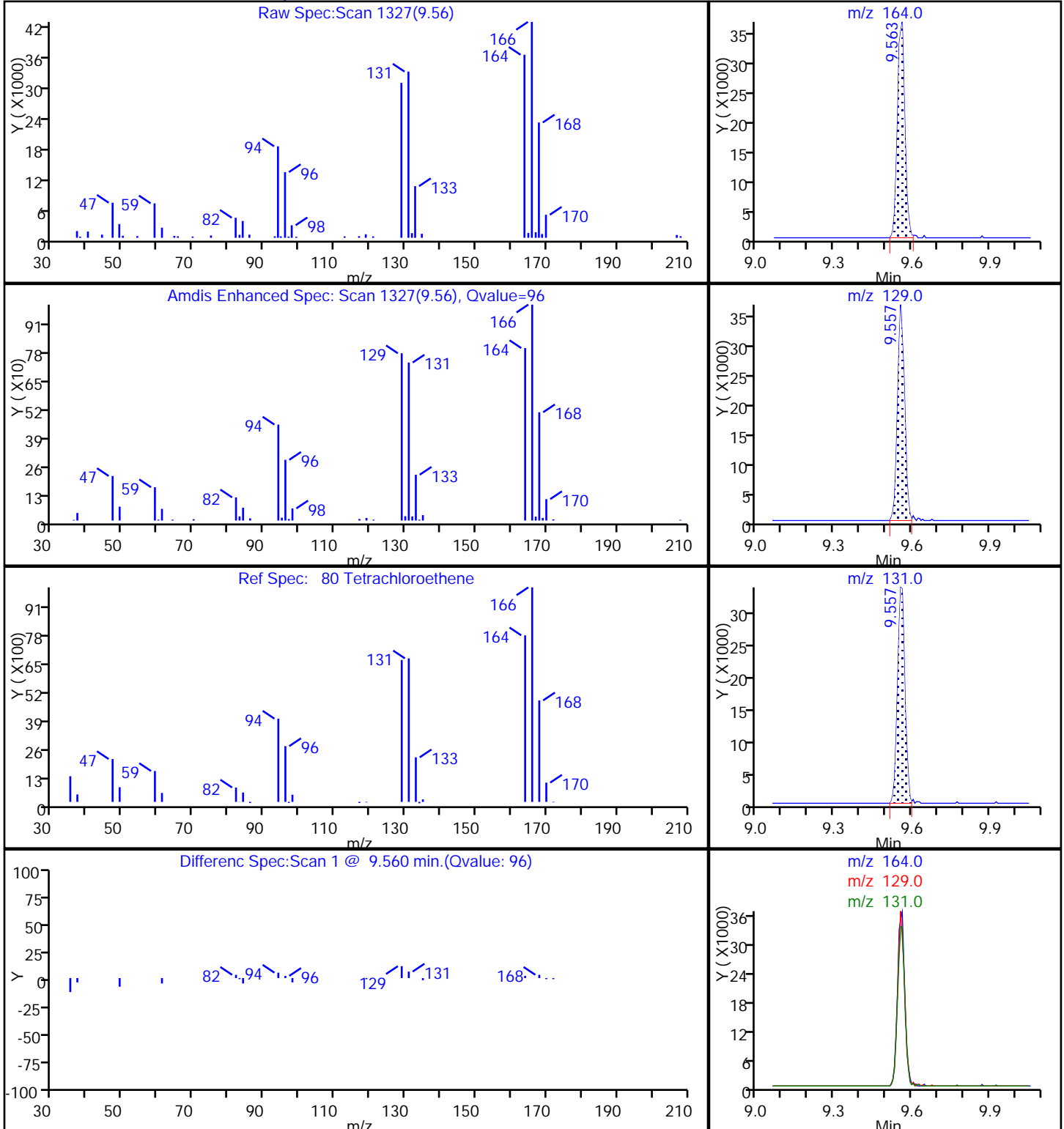
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4





TestAmerica Pittsburgh

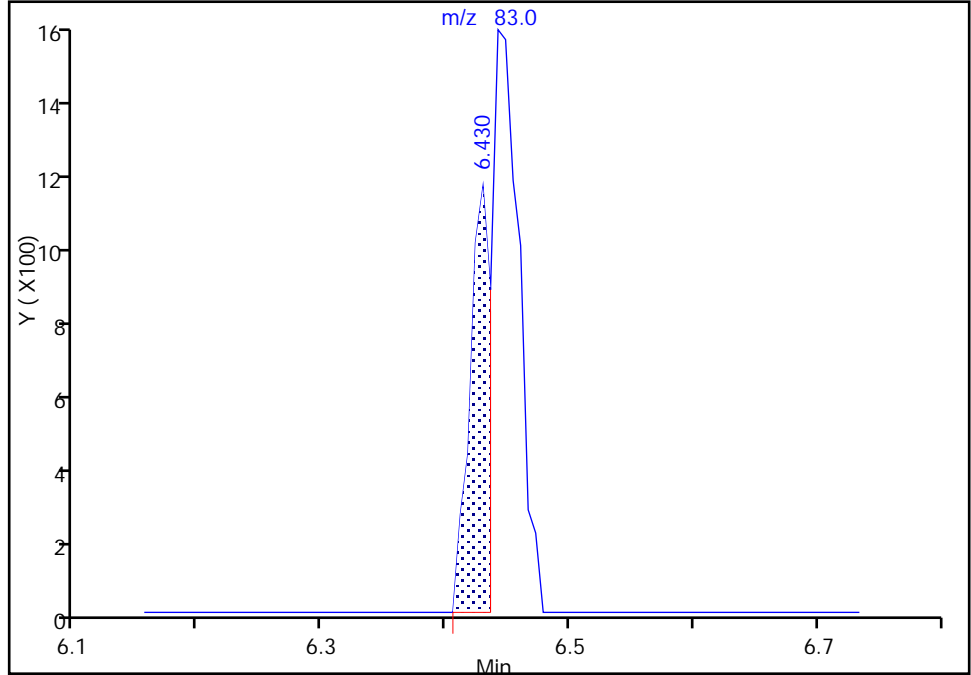
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Injection Date: 09-Aug-2017 08:27:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-7 Lab Sample ID: 180-69061-7  
Client ID: HD-MW-167-0/1-0  
Operator ID: 034635 ALS Bottle#: 17 Worklist Smp#: 17  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

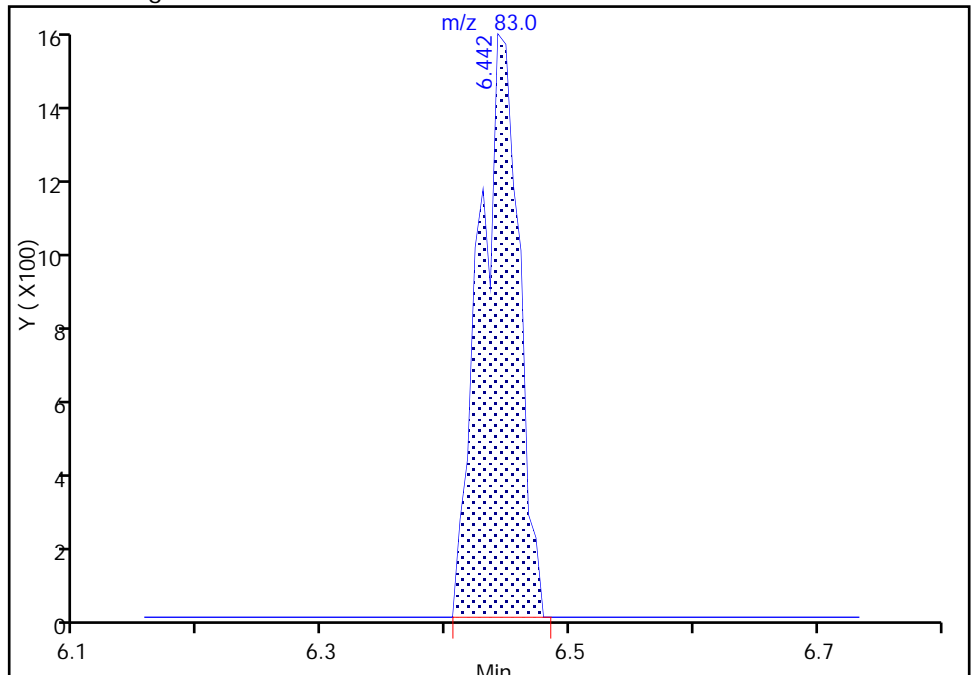
RT: 6.43  
Area: 1316  
Amount: 0.275450  
Amount Units: ng

Processing Integration Results



RT: 6.44  
Area: 3361  
Amount: 0.703485  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Aug-2017 22:05:27  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-166-0/1-0 Lab Sample ID: 180-69061-9  
 Matrix: Water Lab File ID: 50809D19.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 13:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 09:16  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.2		1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.3		1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	0.94	J	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-166-0/1-0 Lab Sample ID: 180-69061-9  
 Matrix: Water Lab File ID: 50809D19.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 13:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 09:16  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D19.D  
 Lims ID: 180-69061-C-9  
 Client ID: HD-MW-166-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 09:16:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-019  
 Misc. Info.: 180-69061-C-9  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:07:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.352	4.373	-0.021	0	265179	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.336	0.003	99	495113	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.426	0.003	85	138963	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.768	0.003	96	216198	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.618	0.003	92	120049	50.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.980	6.983	-0.003	0	149102	51.3	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.978	0.003	92	474333	42.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.612	-0.003	86	205065	51.3	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.512	3.533	-0.021	77	7489	5.78	M
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83	6.438	6.435	0.003	93	28800	6.01	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130	7.722	7.725	-0.003	93	20206	6.67	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.553	9.556	-0.003	91	12362	4.68	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D19.D

Injection Date: 09-Aug-2017 09:16:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-9

Lab Sample ID: 180-69061-9

Worklist Smp#: 19

Client ID: HD-MW-166-0/1-0

Purge Vol: 5.000 mL

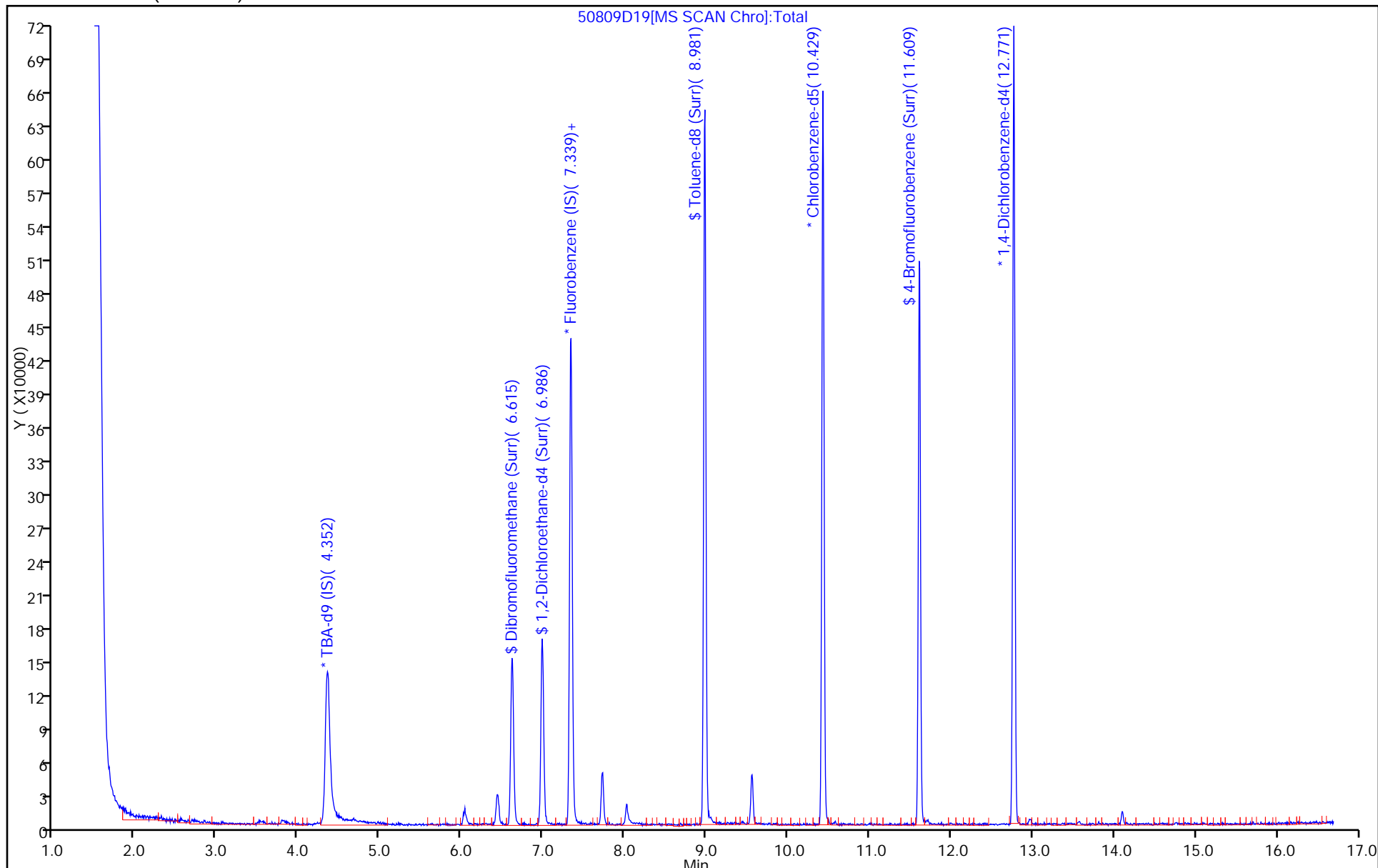
Dil. Factor: 1.0000

ALS Bottle#: 19

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D19.D  
 Lims ID: 180-69061-C-9  
 Client ID: HD-MW-166-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 09:16:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-019  
 Misc. Info.: 180-69061-C-9  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 22:07:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.4	100.79
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.3	102.63
\$ 7 Toluene-d8 (Surr)	50.0	42.9	85.78
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.3	102.68

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D19.D

Injection Date: 09-Aug-2017 09:16:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-9

Lab Sample ID: 180-69061-9

Client ID: HD-MW-166-0/1-0

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

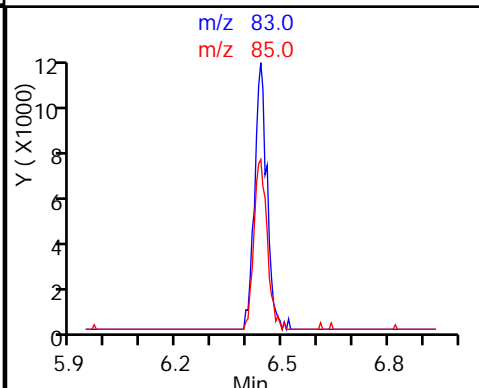
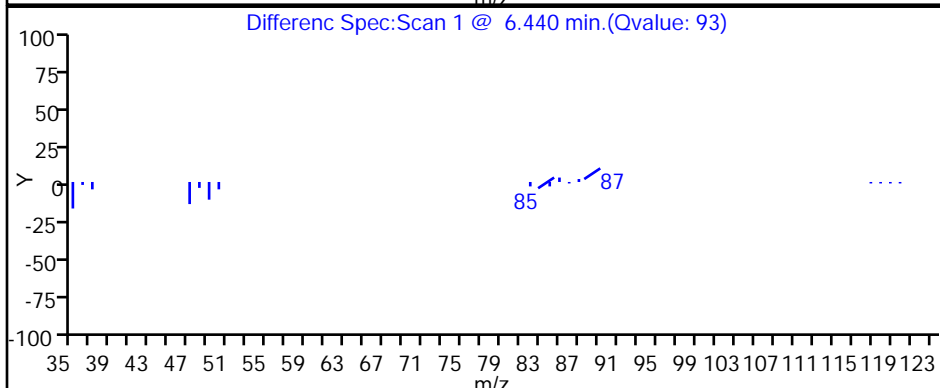
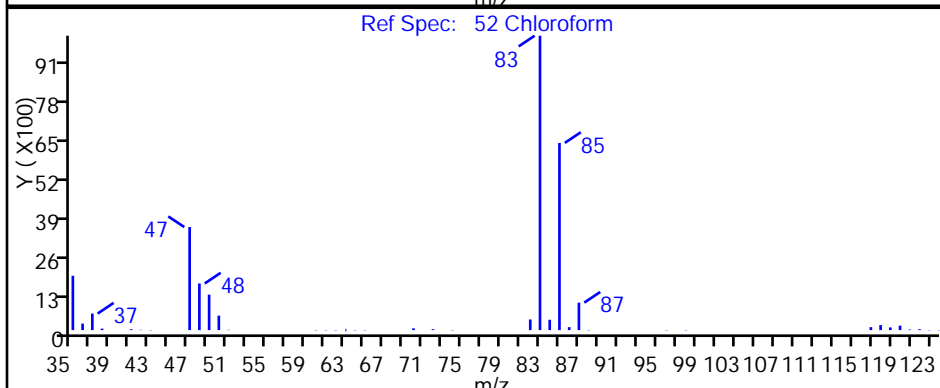
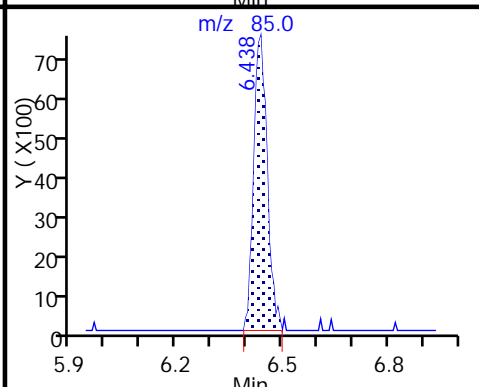
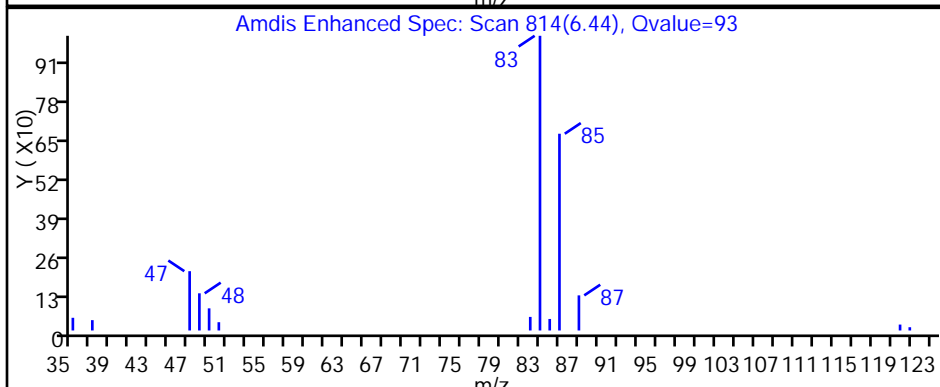
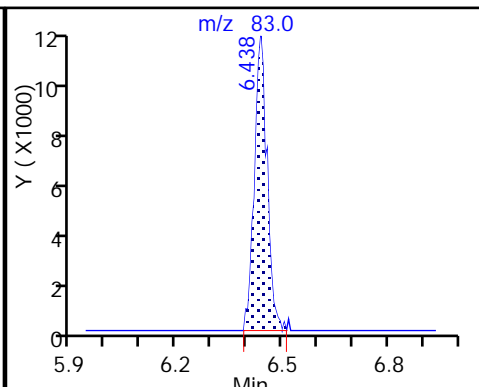
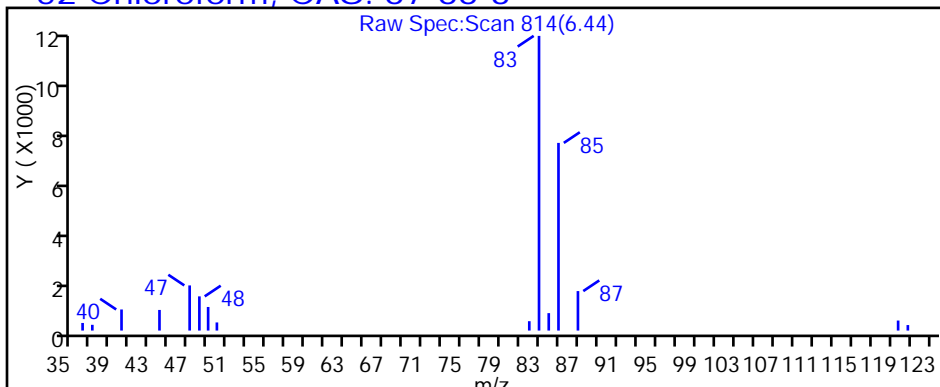
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D19.D

Injection Date: 09-Aug-2017 09:16:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-9

Lab Sample ID: 180-69061-9

Client ID: HD-MW-166-0/1-0

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

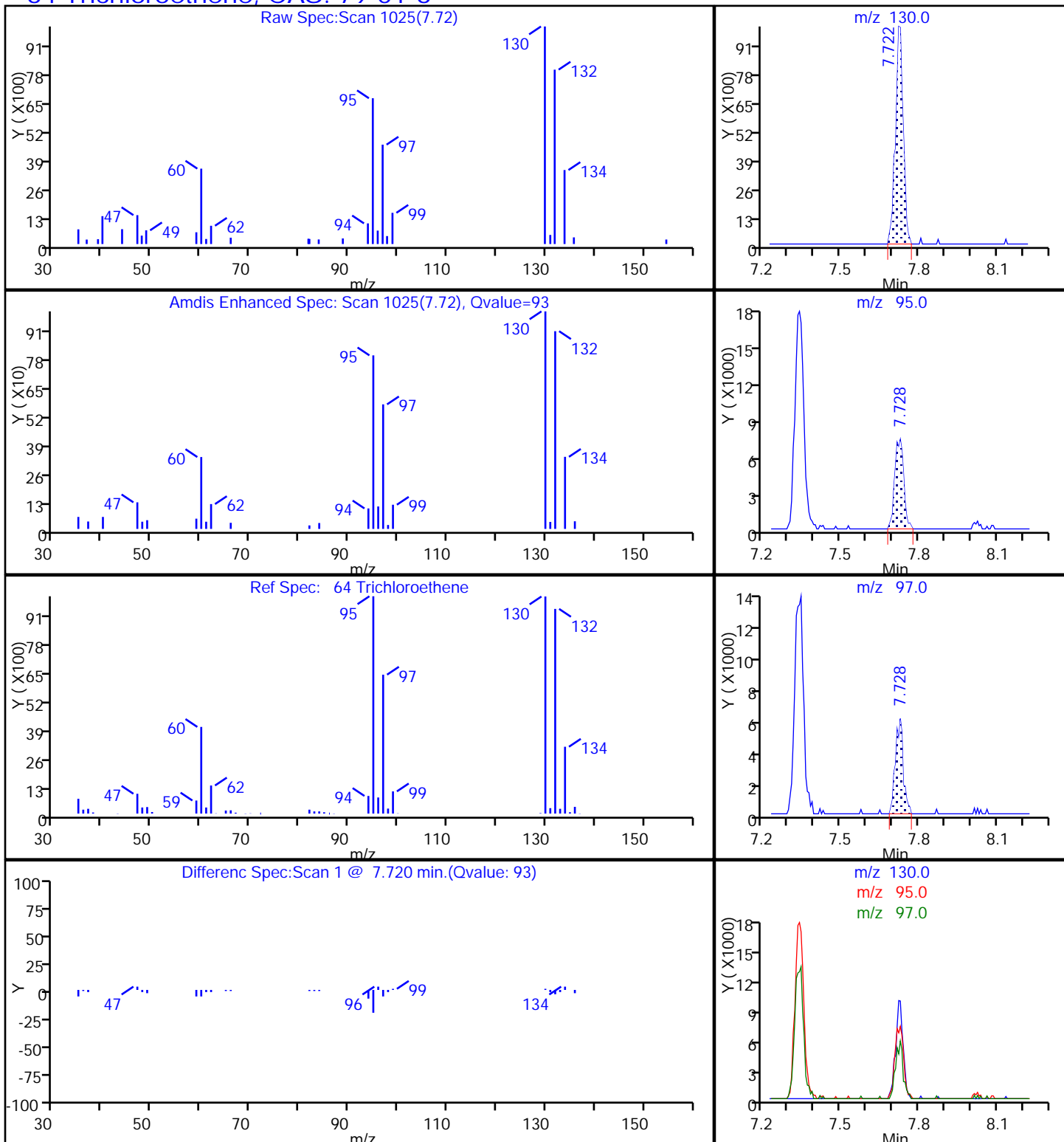
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D19.D

Injection Date: 09-Aug-2017 09:16:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-9

Lab Sample ID: 180-69061-9

Client ID: HD-MW-166-0/1-0

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

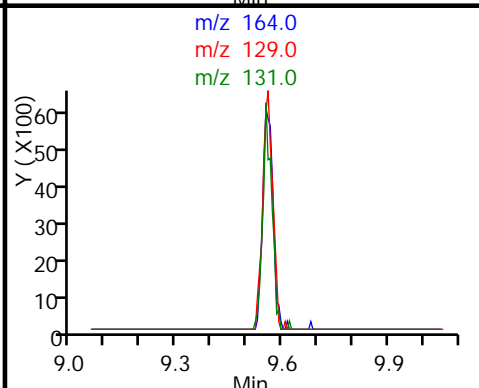
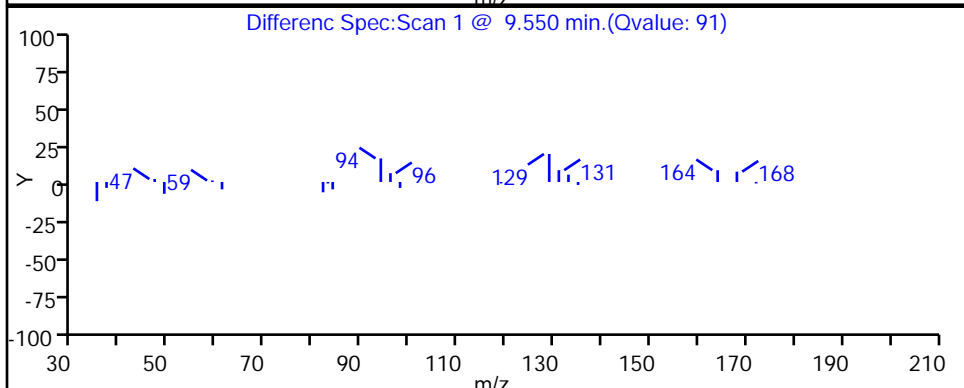
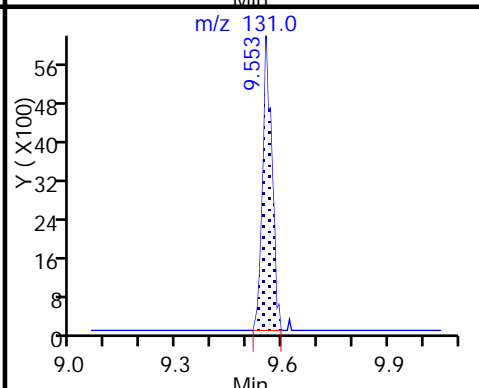
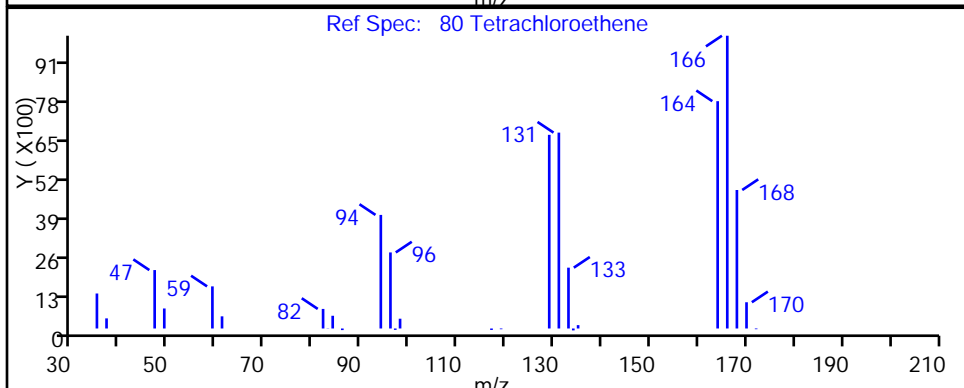
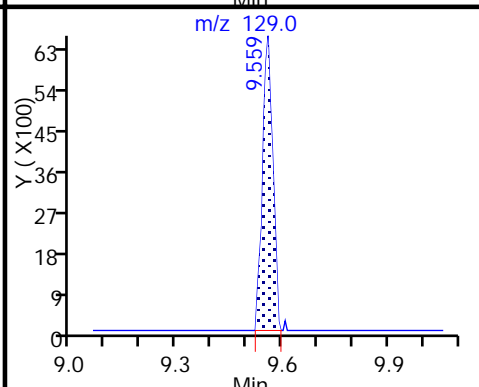
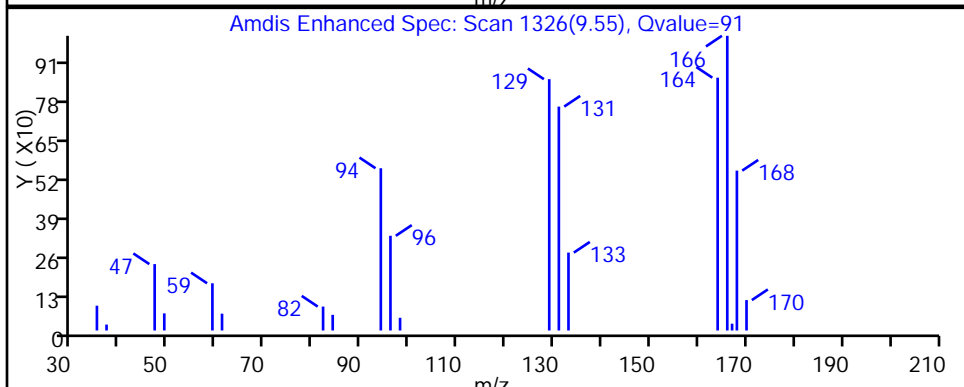
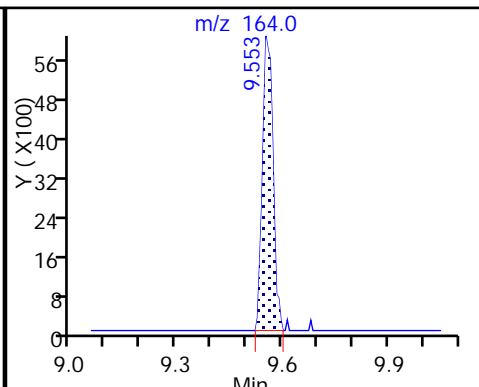
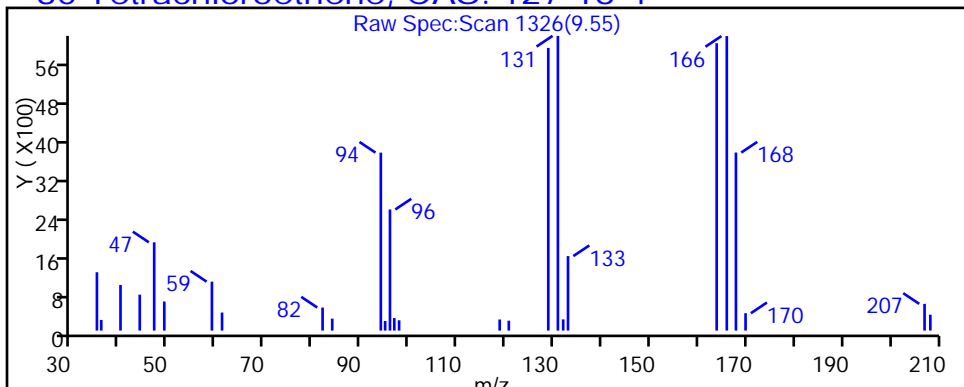
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

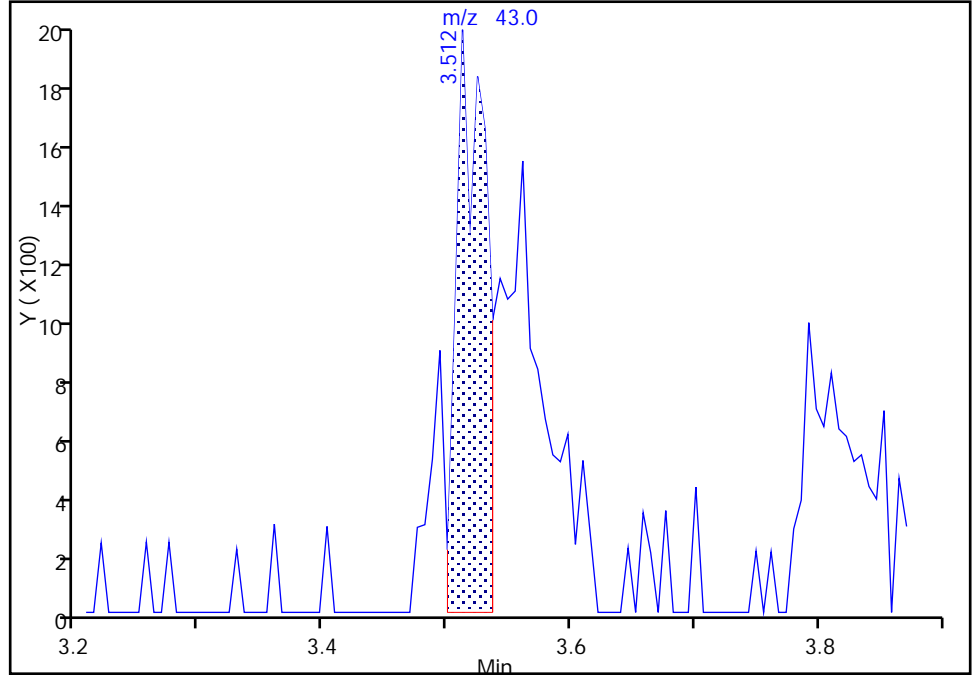
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Injection Date: 09-Aug-2017 09:16:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-9 Lab Sample ID: 180-69061-9  
Client ID: HD-MW-166-0/1-0  
Operator ID: 034635 ALS Bottle#: 19 Worklist Smp#: 19  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

Signal: 1

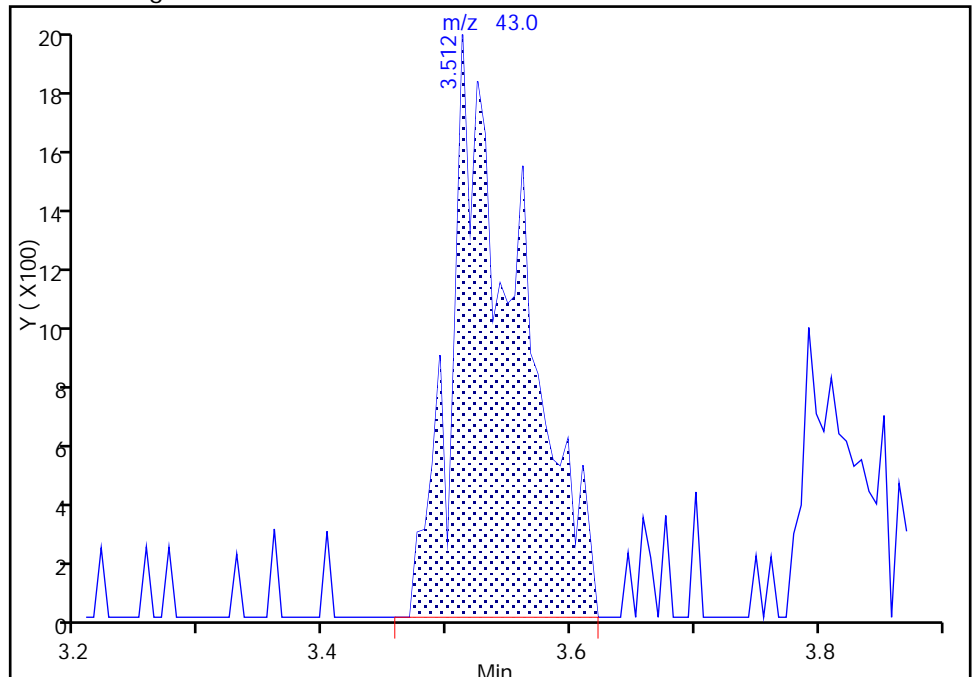
RT: 3.51  
Area: 3219  
Amount: 2.486167  
Amount Units: ng

Processing Integration Results



RT: 3.51  
Area: 7489  
Amount: 5.784064  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Aug-2017 22:07:12  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-168-0/1-0 Lab Sample ID: 180-69061-10  
 Matrix: Water Lab File ID: 50809D20.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 09:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-168-0/1-0 Lab Sample ID: 180-69061-10  
 Matrix: Water Lab File ID: 50809D20.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:45  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 09:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	84		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D20.D  
 Lims ID: 180-69061-B-10  
 Client ID: HD-MW-168-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 09:40:30 ALS Bottle#: 20 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-020  
 Misc. Info.: 180-69061-B-10  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:08:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.373	-0.019	0	271180	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	99	498713	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.426	0.006	86	144537	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.768	0.006	96	216467	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.617	6.618	-0.001	93	117215	48.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.983	-0.001	0	144400	49.3	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.978	0.000	93	481927	41.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	86	207845	50.0	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.515	3.533	-0.018	86	7734	5.93	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83	6.429	6.435	-0.006	1	1123	0.2325	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130		7.725				ND	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164		9.556				ND	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D20.D

Injection Date: 09-Aug-2017 09:40:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-10

Lab Sample ID: 180-69061-10

Worklist Smp#: 20

Client ID: HD-MW-168-0/1-0

Purge Vol: 5.000 mL

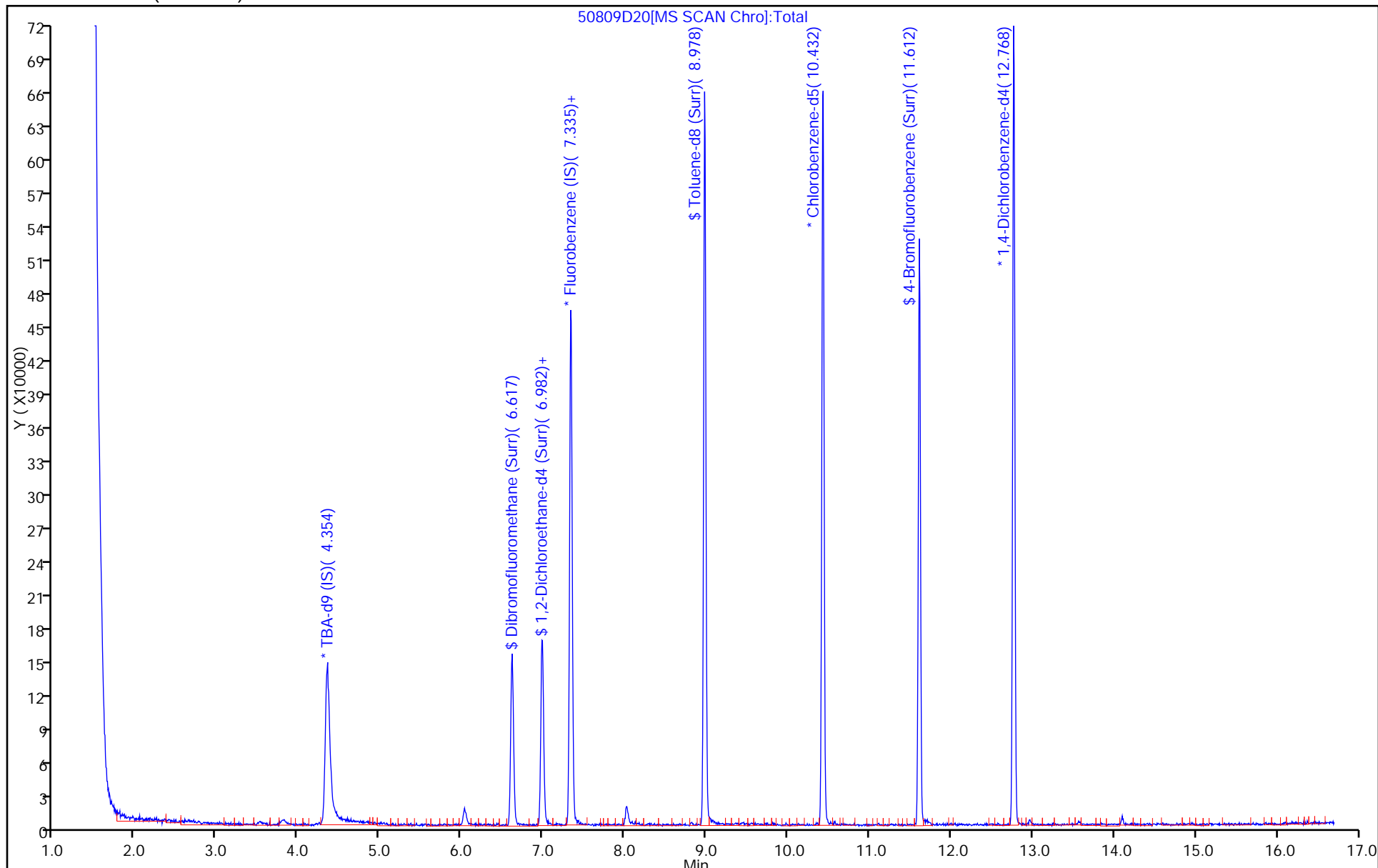
Dil. Factor: 1.0000

ALS Bottle#: 20

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D20.D  
 Lims ID: 180-69061-B-10  
 Client ID: HD-MW-168-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 09:40:30 ALS Bottle#: 20 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-020  
 Misc. Info.: 180-69061-B-10  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 22:08:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.8	97.70
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.3	98.68
\$ 7 Toluene-d8 (Surr)	50.0	41.9	83.79
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.0	100.06

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-141A-0/1-0 Lab Sample ID: 180-69061-11  
 Matrix: Water Lab File ID: 50809D22.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 14:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 10:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	2.3		1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.2		1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	5.0		1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-141A-0/1-0 Lab Sample ID: 180-69061-11  
 Matrix: Water Lab File ID: 50809D22.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 14:40  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 10:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	105		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D22.D  
 Lims ID: 180-69061-B-11  
 Client ID: HD-MW-141A-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 10:28:30 ALS Bottle#: 22 Worklist Smp#: 22  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-022  
 Misc. Info.: 180-69061-B-11  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:09:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.373	-0.020	0	272982	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.336	-0.002	98	494843	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.426	0.005	86	138230	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.768	0.005	96	226266	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.617	6.618	-0.001	92	123744	52.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.983	0.005	0	150042	51.7	
\$ 7 Toluene-d8 (Surr)	98	8.977	8.978	-0.001	93	479928	43.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.612	-0.001	87	208081	52.4	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43	3.508	3.533	-0.025	60	11946	9.23	
26 Carbon disulfide	76		3.698				ND	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96	6.008	6.009	-0.001	80	36312	11.5	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130	7.724	7.725	-0.001	95	17715	5.85	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91	9.044	9.045	-0.001	94	5087	0.3691	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.561	9.556	0.005	96	65831	25.0	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D22.D

Injection Date: 09-Aug-2017 10:28:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-11

Lab Sample ID: 180-69061-11

Worklist Smp#: 22

Client ID: HD-MW-141A-0/1-0

Purge Vol: 5.000 mL

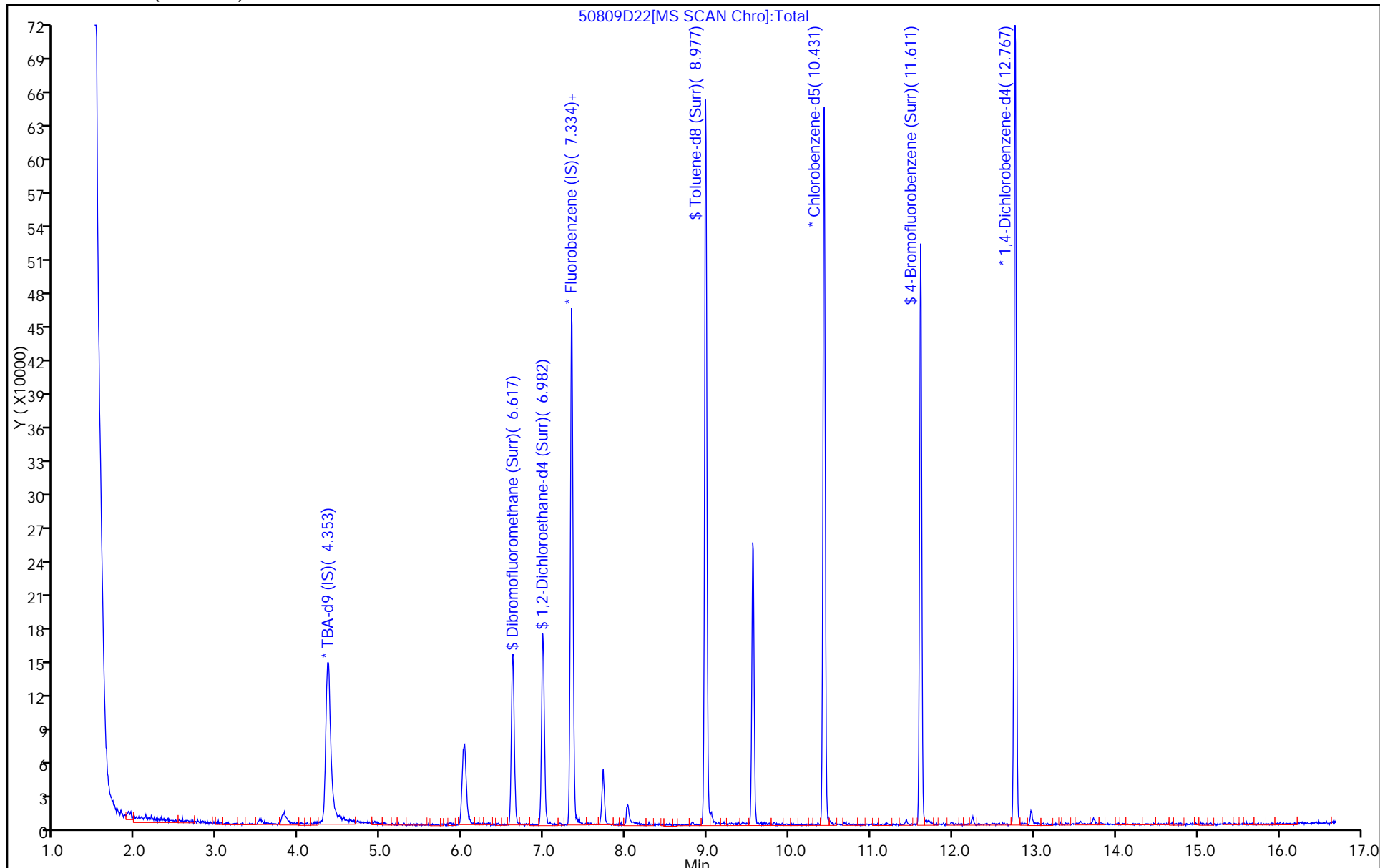
Dil. Factor: 1.0000

ALS Bottle#: 22

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D22.D  
 Lims ID: 180-69061-B-11  
 Client ID: HD-MW-141A-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 10:28:30 ALS Bottle#: 22 Worklist Smp#: 22  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-022  
 Misc. Info.: 180-69061-B-11  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:09:23

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.0	103.95
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.7	103.34
\$ 7 Toluene-d8 (Surr)	50.0	43.6	87.25
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.4	104.74

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D22.D

Injection Date: 09-Aug-2017 10:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-11

Lab Sample ID: 180-69061-11

Client ID: HD-MW-141A-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

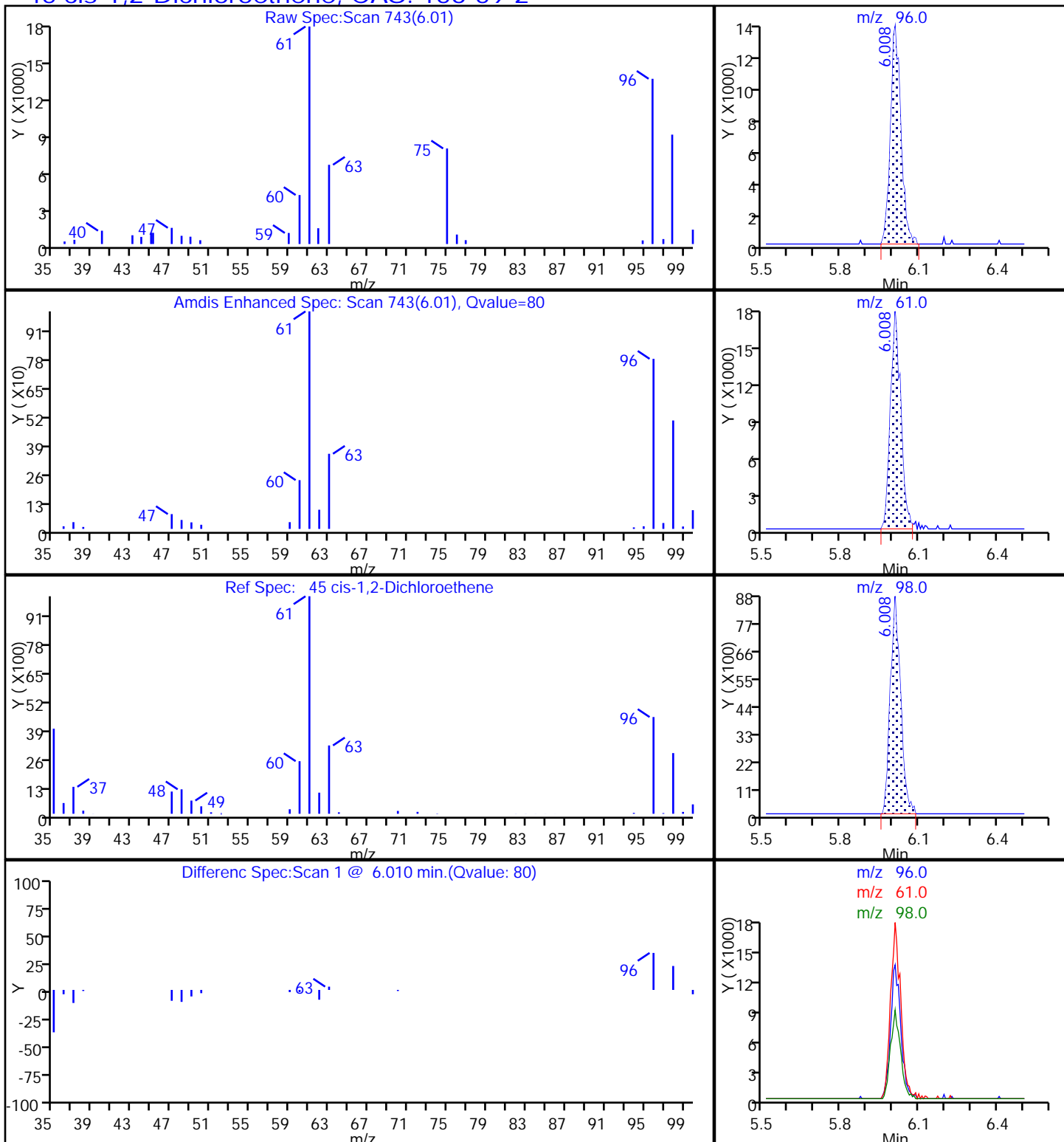
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

45 cis-1,2-Dichloroethene, CAS: 156-59-2





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D22.D

Injection Date: 09-Aug-2017 10:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-11

Lab Sample ID: 180-69061-11

Client ID: HD-MW-141A-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

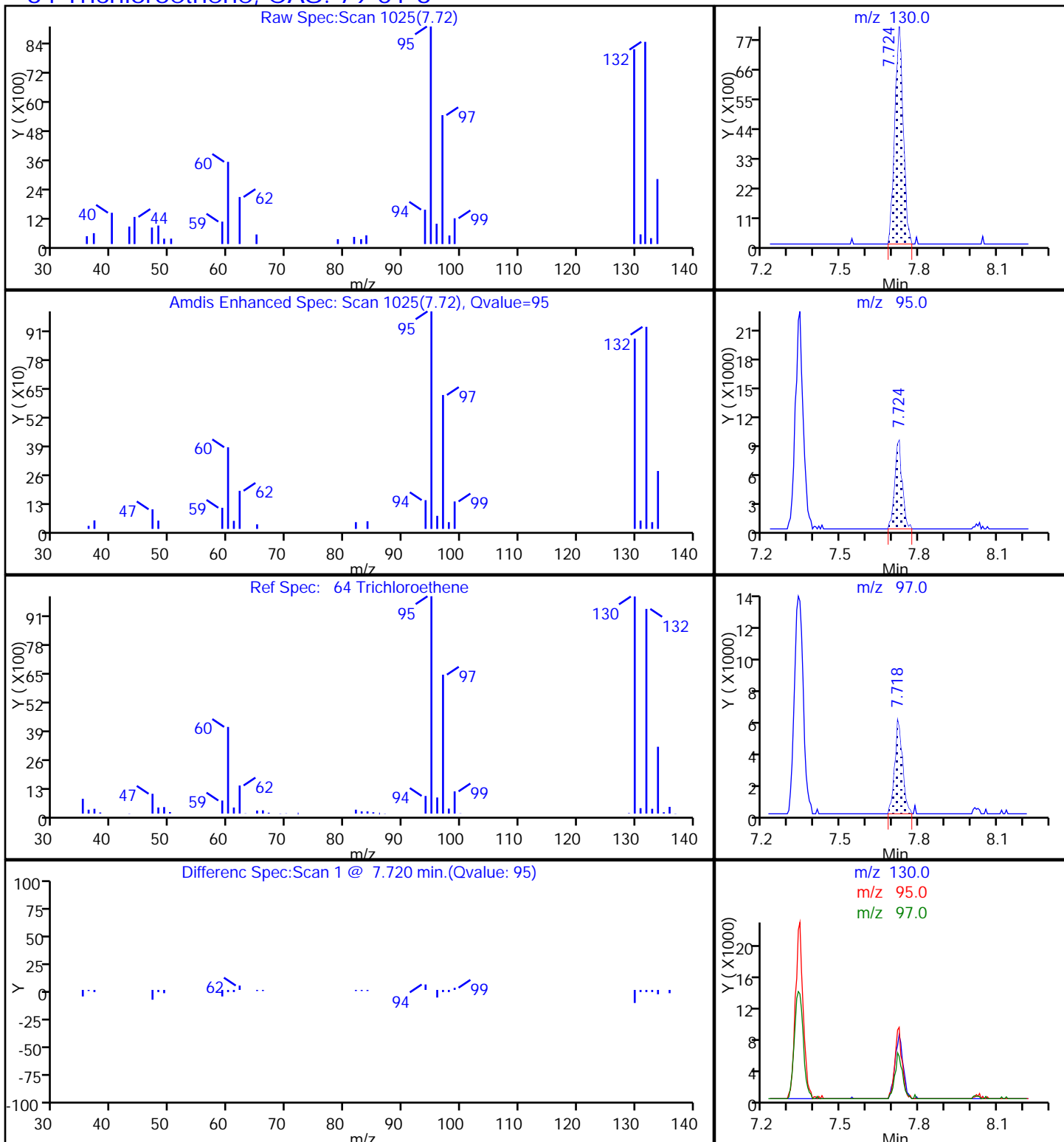
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D22.D

Injection Date: 09-Aug-2017 10:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-11

Lab Sample ID: 180-69061-11

Client ID: HD-MW-141A-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

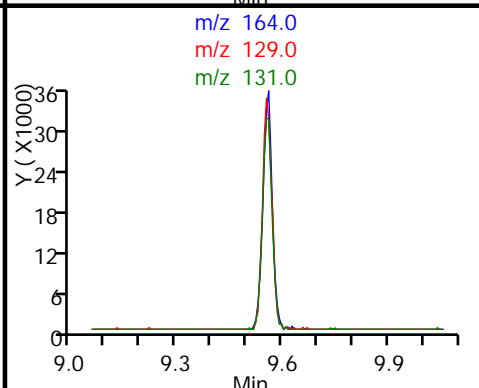
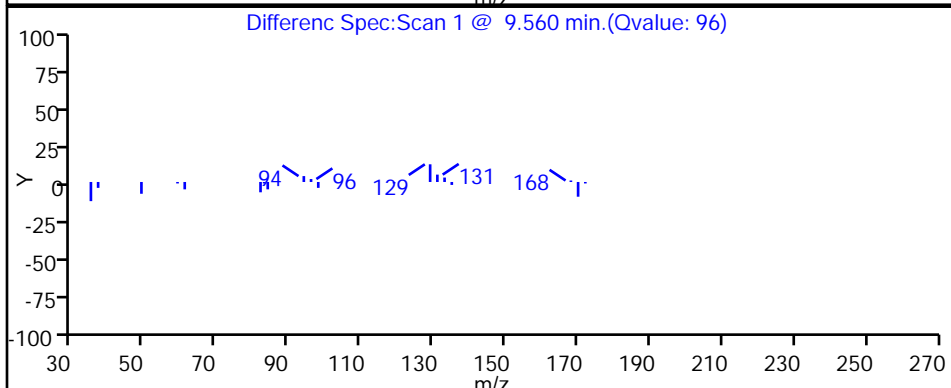
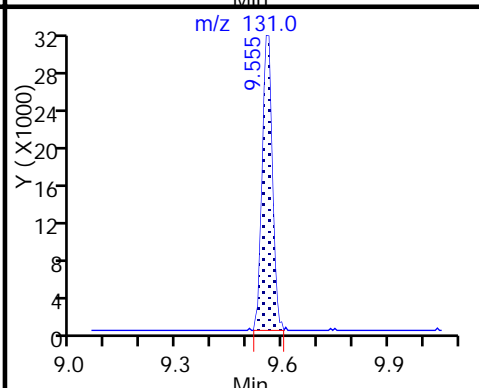
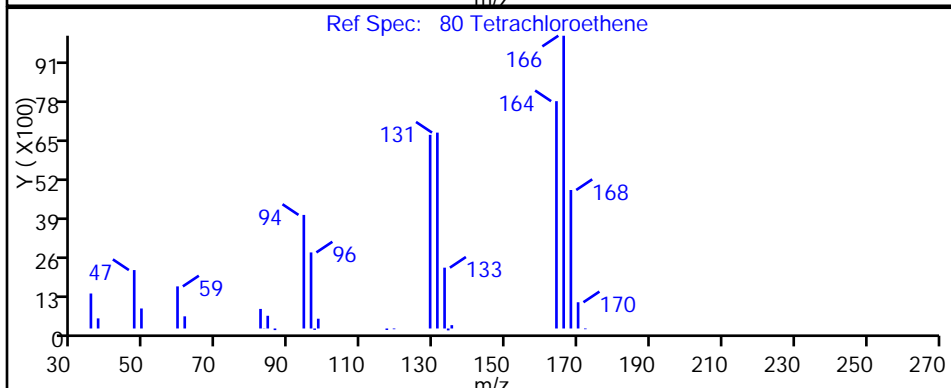
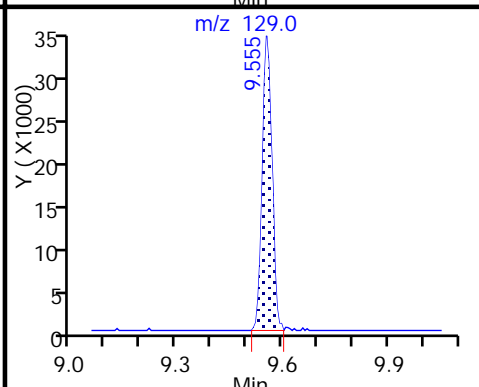
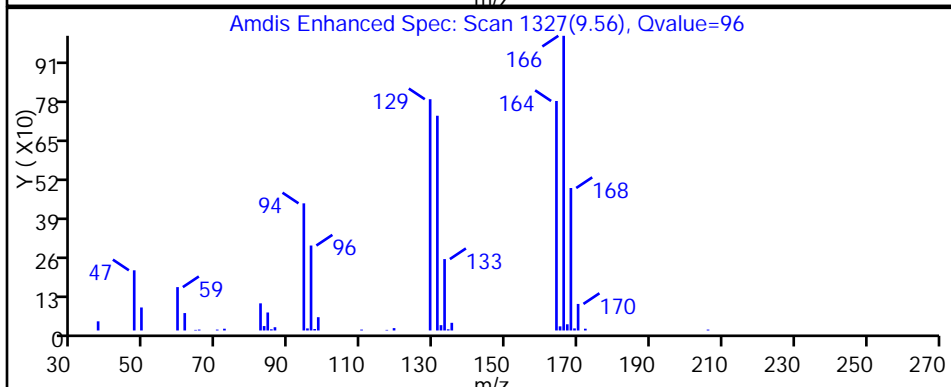
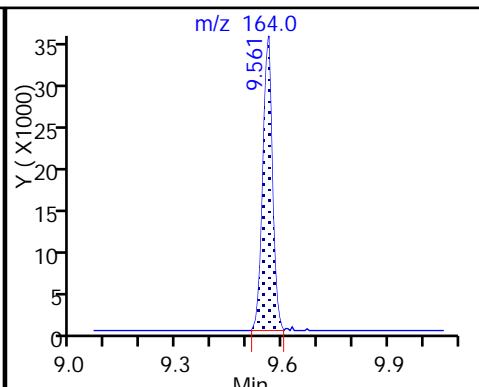
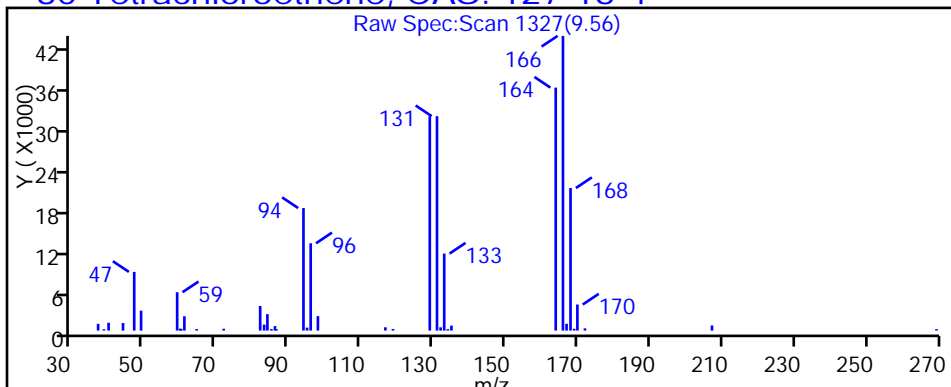
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-171-0/1-0 Lab Sample ID: 180-69061-12  
 Matrix: Water Lab File ID: 50809D23.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 10:52  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	0.24	J	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.2		1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-171-0/1-0 Lab Sample ID: 180-69061-12  
 Matrix: Water Lab File ID: 50809D23.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 10:52  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	87		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D23.D  
 Lims ID: 180-69061-C-12  
 Client ID: HD-MW-171-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 10:52:30 ALS Bottle#: 23 Worklist Smp#: 23  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-023  
 Misc. Info.: 180-69061-C-12  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:10:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.373	-0.012	0	277154	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.336	0.000	99	508911	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.426	0.006	86	139396	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.768	0.001	97	221363	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.618	0.000	92	122306	49.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.983	0.000	0	150451	50.4	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.978	0.001	93	480948	43.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	87	207222	51.7	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
22 1,1-Dichloroethene	96		3.424				ND	
24 Acetone	43		3.533				ND	
26 Carbon disulfide	76	3.741	3.698	0.043	50	4800	0.8778	
31 Methylene Chloride	84		4.221				ND	
33 Acrylonitrile	53		4.604				ND	
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
49 Chlorobromomethane	128		6.289				ND	
52 Chloroform	83		6.435				ND	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.758				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
64 Trichloroethene	130	7.719	7.725	-0.006	93	3676	1.18	
67 1,2-Dichloropropane	63		7.993				ND	
70 1,4-Dioxane	88		8.078				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.279				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.556	9.556	0.000	94	16164	6.10	
82 2-Hexanone	43		9.702				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	
87 Chlorobenzene	112		10.456				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D23.D

Injection Date: 09-Aug-2017 10:52:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-12

Lab Sample ID: 180-69061-12

Worklist Smp#: 23

Client ID: HD-MW-171-0/1-0

Purge Vol: 5.000 mL

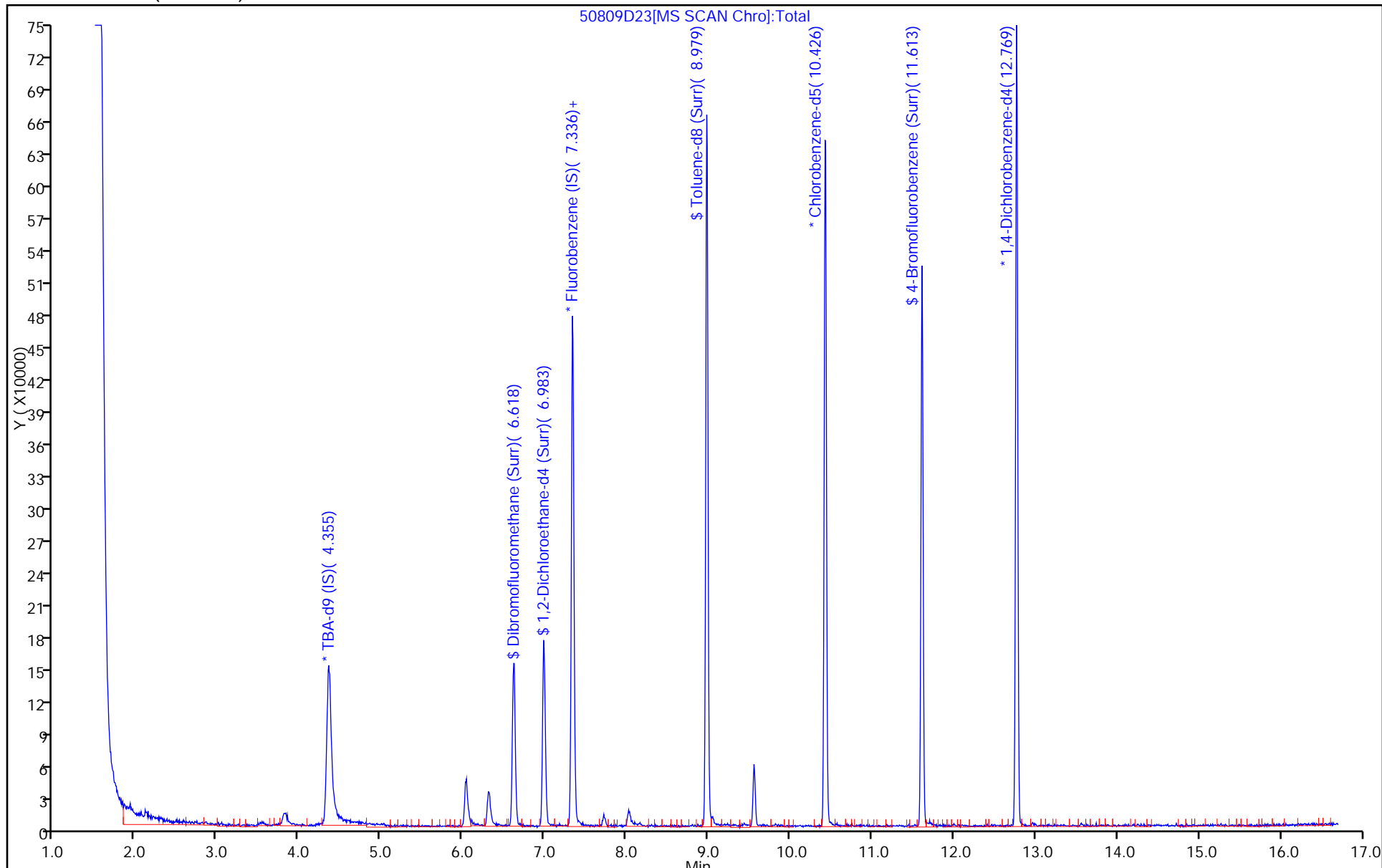
Dil. Factor: 1.0000

ALS Bottle#: 23

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D23.D  
 Lims ID: 180-69061-C-12  
 Client ID: HD-MW-171-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 10:52:30 ALS Bottle#: 23 Worklist Smp#: 23  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-023  
 Misc. Info.: 180-69061-C-12  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 20:19:21 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 22:10:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.9	99.90
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.4	100.75
\$ 7 Toluene-d8 (Surr)	50.0	43.4	86.70
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.7	103.44



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D23.D

Injection Date: 09-Aug-2017 10:52:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-12

Lab Sample ID: 180-69061-12

Client ID: HD-MW-171-0/1-0

Operator ID: 034635

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

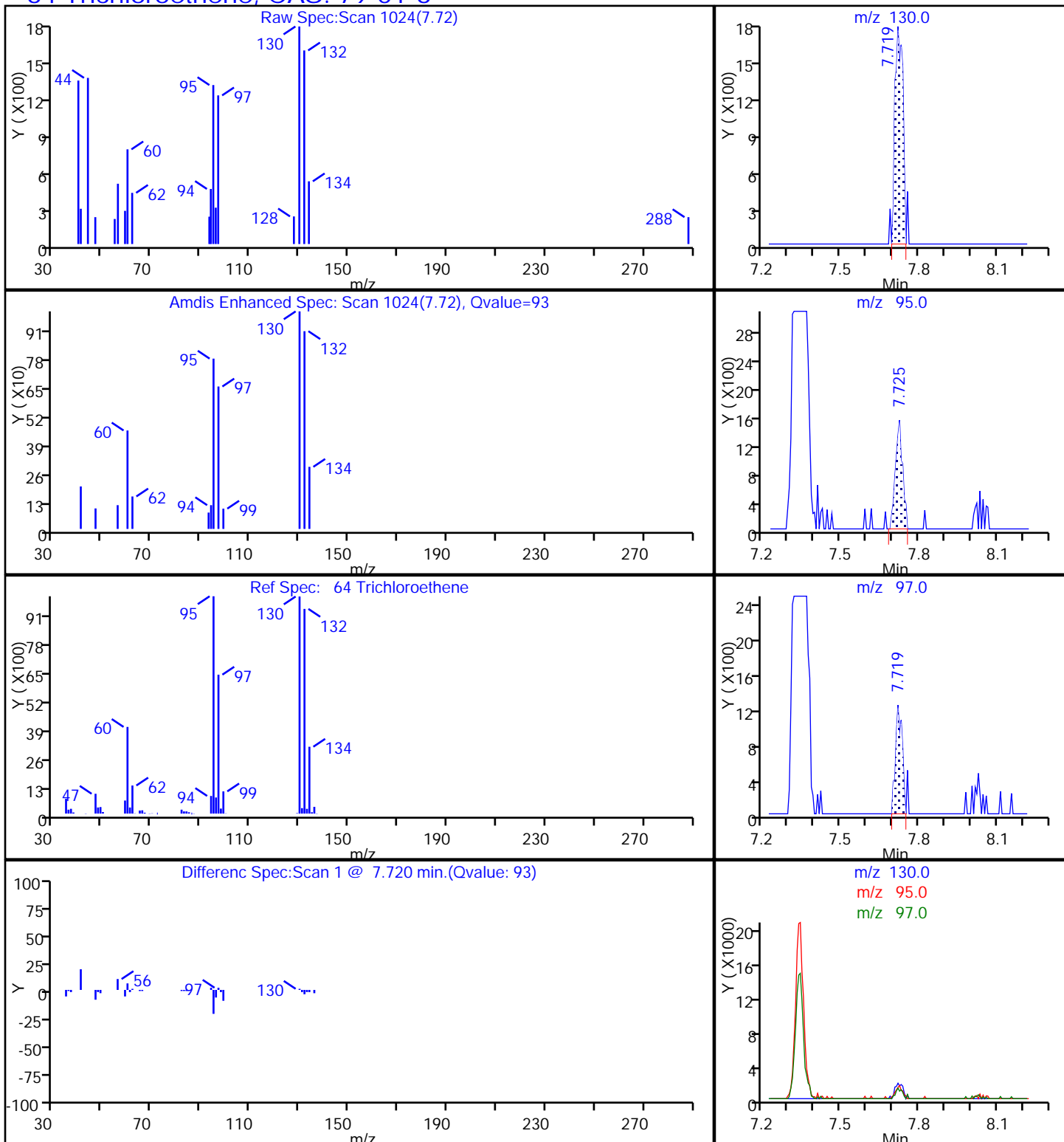
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D23.D

Injection Date: 09-Aug-2017 10:52:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-12

Lab Sample ID: 180-69061-12

Client ID: HD-MW-171-0/1-0

Operator ID: 034635

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

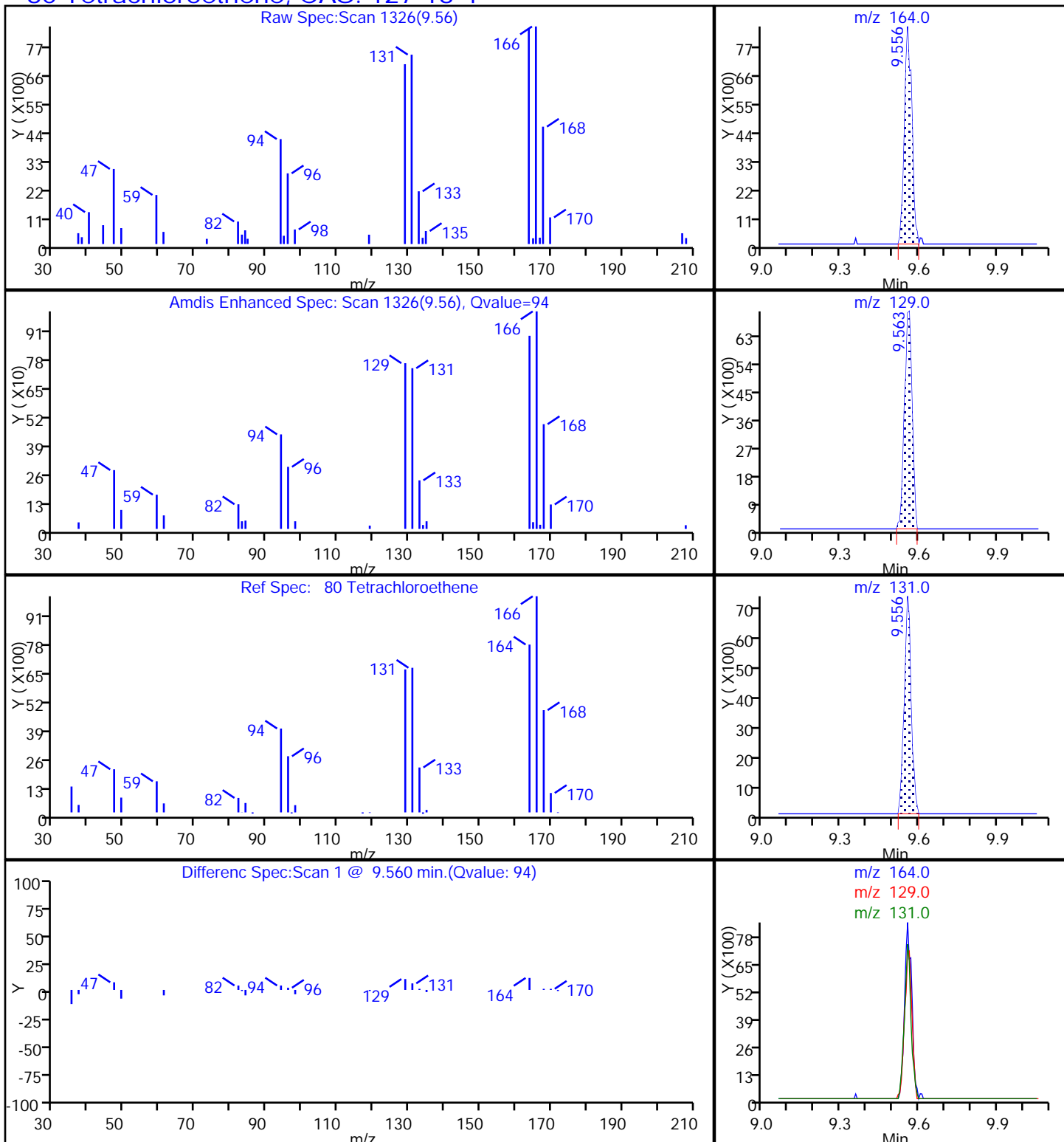
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-4 Lab Sample ID: 180-69061-13  
 Matrix: Water Lab File ID: 50810D06.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 02:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	4.9	J ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	0.17	J	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-4 Lab Sample ID: 180-69061-13  
 Matrix: Water Lab File ID: 50810D06.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 02:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	84		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D06.D  
 Lims ID: 180-69061-B-13  
 Client ID: HD-QC1-0/1-4  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-006  
 Misc. Info.: 180-69061-B-13  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 03:06:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.343	4.376	-0.033	0	320924	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.333	0.003	99	540362	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.423	0.004	86	156993	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	97	243798	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.615	-0.003	93	128332	49.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.989	6.986	0.003	0	156753	49.4	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.975	0.004	93	524440	42.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.609	0.004	86	232157	51.4	
11 Dichlorodifluoromethane	85		1.681				ND	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
14 Butadiene	39		1.991				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
17 Dichlorofluoromethane	67		2.734				ND	
18 Trichlorofluoromethane	101		2.788				ND	
19 Ethanol	45		2.821				ND	
20 Ethyl ether	59		3.111				ND	
21 Acrolein	56		3.299				ND	
22 1,1-Dichloroethene	96		3.409				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.494				ND	
24 Acetone	43	3.522	3.524	-0.002	100	34863	24.7	
25 Iodomethane	142		3.622				ND	
26 Carbon disulfide	76		3.713				ND	
27 Isopropyl alcohol	45	3.802	3.752	0.050	97	23675	137.6	
29 Acetonitrile	41		3.904				ND	
28 3-Chloro-1-propene	76		4.005				ND	
30 Methyl acetate	43		4.029				ND	
31 Methylene Chloride	84		4.218				ND	
32 2-Methyl-2-propanol	59		4.504				ND	
33 Acrylonitrile	53		4.607				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
36 Hexane	57		5.051				ND	
37 1,1-Dichloroethane	63		5.258				ND	
39 2-Chloro-1,3-butadiene	53		5.309				ND	
41 Isopropyl ether	45		5.316				ND	
38 Vinyl acetate	43		5.319				ND	
40 Isopropyl ether TIC	45		5.410				ND	
42 Tert-butyl ethyl ether	59		5.790				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
44 2,2-Dichloropropane	97		6.000				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43	6.034	6.025	0.009	32	7417	3.69	
47 Propionitrile	54		6.052				ND	
48 Ethyl acetate	43		6.052				ND	
50 Methacrylonitrile	41		6.222				ND	
49 Chlorobromomethane	128		6.286				ND	
51 Tetrahydrofuran	42		6.305				ND	
52 Chloroform	83	6.436	6.432	0.004	12	2698	0.5155	
53 1,1,1-Trichloroethane	97		6.591				ND	
54 Cyclohexane	56		6.657				ND	
56 Carbon tetrachloride	117		6.761				ND	
55 1,1-Dichloropropene	75		6.779				ND	
58 Benzene	78	6.989	6.992	-0.003	43	5880	0.4475	
57 Isobutyl alcohol	41		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
151 Isooctane	57		7.104				ND	
61 Tert-amyl methyl ether	73		7.128				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.351				ND	
63 n-Butanol	56		7.646				ND	
64 Trichloroethene	130		7.722				ND	
65 Ethyl acrylate	55		7.810				ND	
66 Methylcyclohexane	83		7.953				ND	
67 1,2-Dichloropropane	63		7.990				ND	
69 Methyl methacrylate	69		8.047				ND	
70 1,4-Dioxane	88		8.075				ND	
68 Dibromomethane	93		8.081				ND	
71 Dichlorobromomethane	83		8.276				ND	
73 2-Chloroethyl vinyl ether	63		8.574				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872				ND	
76 Toluene	91	9.040	9.048	-0.008	99	13597	0.8686	
77 trans-1,3-Dichloropropene	75		9.292				ND	
78 Ethyl methacrylate	69		9.352				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164		9.559				ND	
81 1,3-Dichloropropane	76		9.644				ND	
82 2-Hexanone	43		9.705				ND	
83 n-Butyl acetate	43		9.805				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.429				ND	
87 Chlorobenzene	112		10.460				ND	
88 4-Chlorobenzotrifluoride	180		10.520				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106	11.065	11.068	-0.003	1	884	0.1335	
93 Styrene	104		11.092				ND	
95 Cyclohexanol	57		11.189				ND	
94 Bromoform	173		11.275				ND	
96 2-Chlorobenzotrifluoride	180		11.342				ND	
97 Isopropylbenzene	105		11.439				ND	
98 Cyclohexanone	55		11.515				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
100 Bromobenzene	156		11.749				ND	
102 trans-1,4-Dichloro-2-buten	53		11.786				ND	
101 1,2,3-Trichloropropane	110		11.810				ND	
103 N-Propylbenzene	120		11.853				ND	
104 2-Chlorotoluene	126		11.938				ND	
105 3-Chlorotoluene	126		12.005				ND	
106 1,3,5-Trimethylbenzene	105		12.035				ND	
107 4-Chlorotoluene	126		12.066				ND	
108 tert-Butylbenzene	119		12.352				ND	
110 1,2,4-Trimethylbenzene	105	12.416	12.406	0.010	1	2664	0.1694	
111 1,2-dichloro-4-(trifluorom	214		12.455				ND	
112 sec-Butylbenzene	105		12.577				ND	
113 1,3-Dichlorobenzene	146		12.692				ND	
114 4-Isopropyltoluene	119		12.729				ND	
115 1,4-Dichlorobenzene	146		12.796				ND	
116 2,4-Dichloro-1-(triflourom	214		12.826				ND	
117 1,2,3-Trimethylbenzene	105		12.835				ND	
118 2,5-Dichlorobenzotrifluori	214		12.869				ND	
119 Benzyl chloride	91		12.926				ND	
120 n-Butylbenzene	91		13.136				ND	
121 1,2-Dichlorobenzene	146		13.149				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.939				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085				ND	
124 1,3,5-Trichlorobenzene	180		14.179				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.505				ND	
126 1,2,4-Trichlorobenzene	180		14.767				ND	
127 Hexachlorobutadiene	225		14.913				ND	
128 Naphthalene	128	15.032	15.034	-0.002	1	1609	0.1281	
129 1,2,3-Trichlorobenzene	180		15.259				ND	
131 2,4,5-Trichlorotoluene	159		16.026				ND	
130 2,3,6-Trichlorotoluene	159		16.123				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
S 154 Total BTEX	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96		1.000				ND	
S 133 Xylenes, Total	106				0		0.1335	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000				ND	
T 153 1,2 Epoxybutane TIC	42		6.253				ND	
T 137 Tetrahydrofuran TIC	42	6.296	6.253	0.043	59	767	0	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D06.D

Injection Date: 10-Aug-2017 02:26:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-13

Lab Sample ID: 180-69061-13

Worklist Smp#: 6

Client ID: HD-QC1-0/1-4

Purge Vol: 5.000 mL

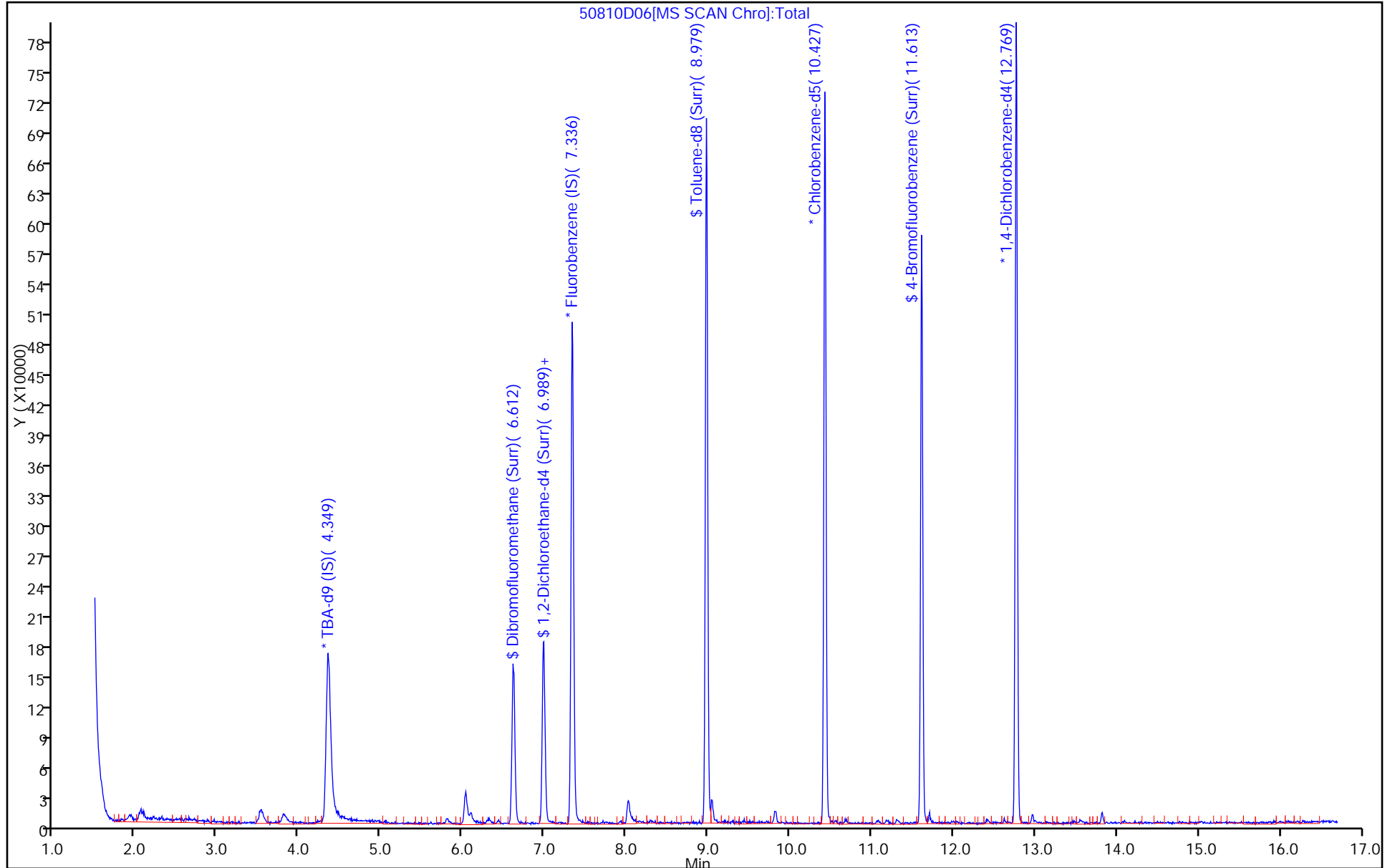
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D06.D  
 Lims ID: 180-69061-B-13  
 Client ID: HD-QC1-0/1-4  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-006  
 Misc. Info.: 180-69061-B-13  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 03:06:25

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.4	98.72
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.4	98.87
\$ 7 Toluene-d8 (Surr)	50.0	42.0	83.95
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.4	102.89

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D06.D

Injection Date: 10-Aug-2017 02:26:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-13

Lab Sample ID: 180-69061-13

Client ID: HD-QC1-0/1-4

Operator ID: 034635

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

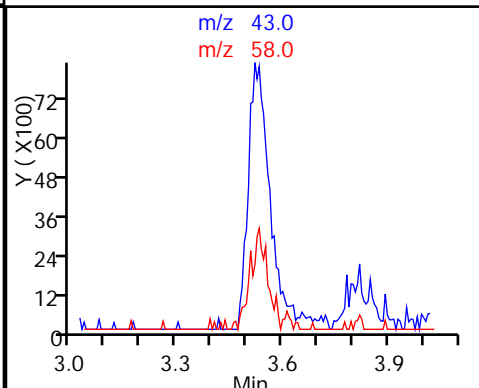
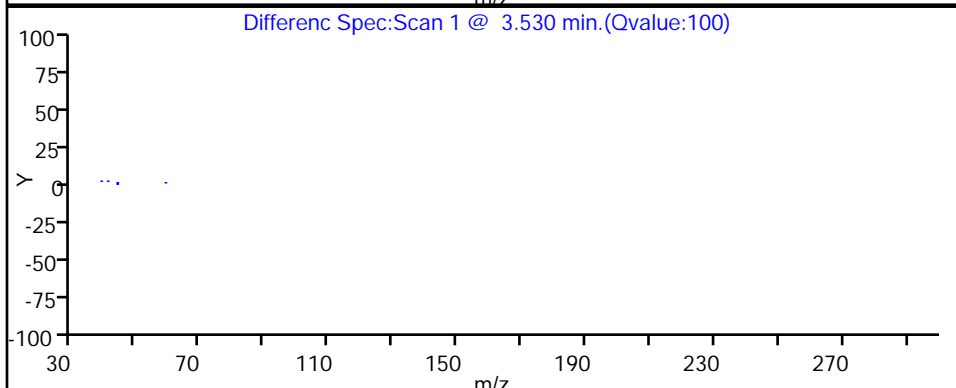
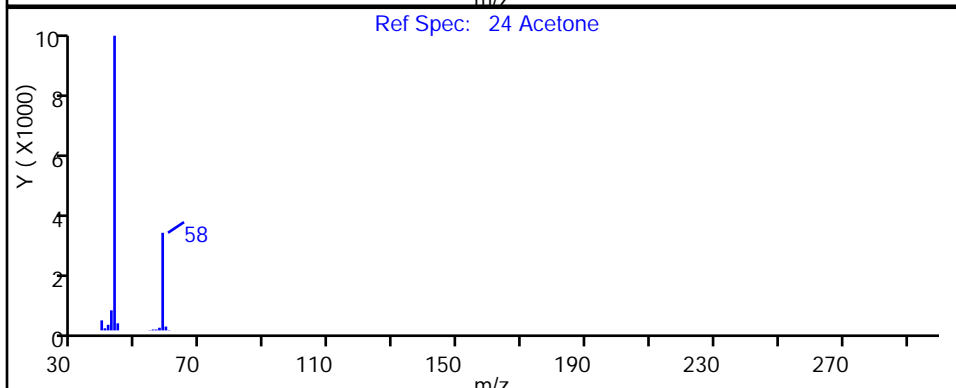
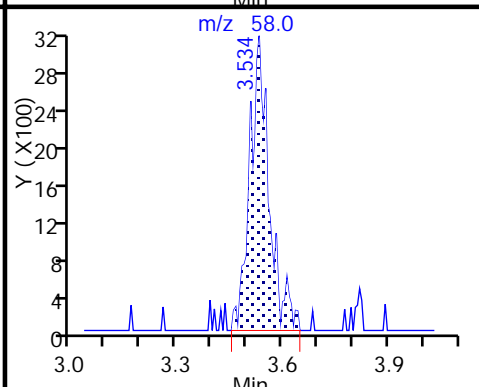
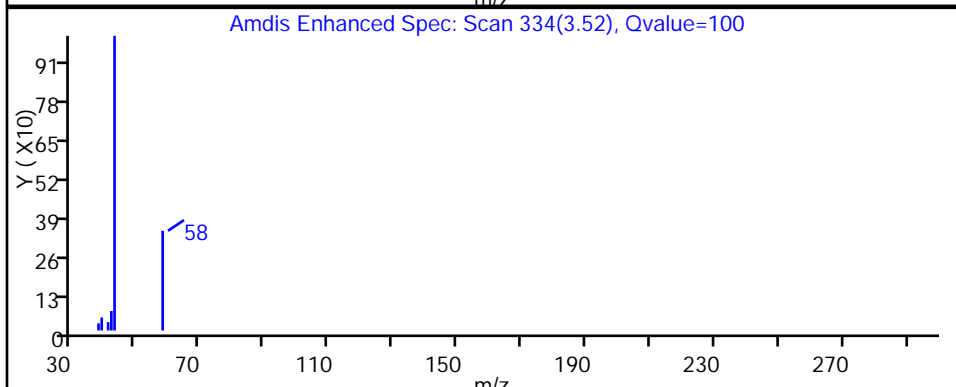
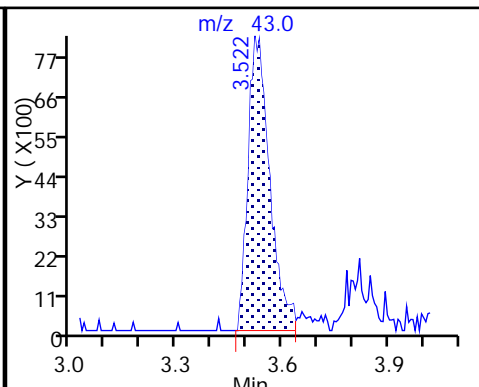
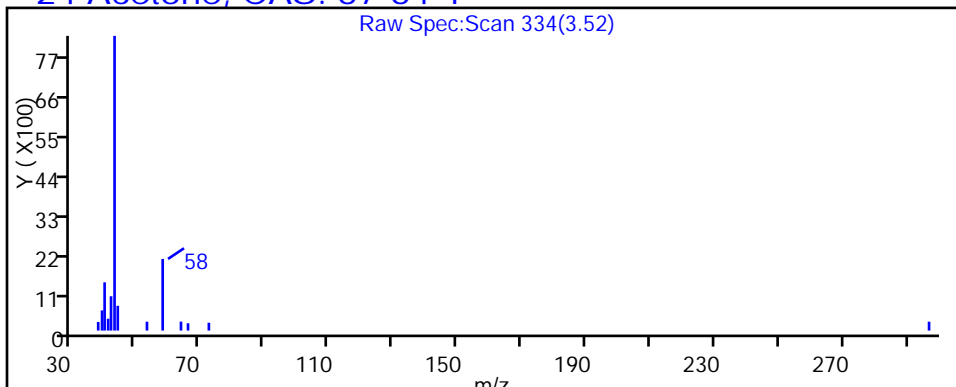
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D06.D

Injection Date: 10-Aug-2017 02:26:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-13

Lab Sample ID: 180-69061-13

Client ID: HD-QC1-0/1-4

Operator ID: 034635

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

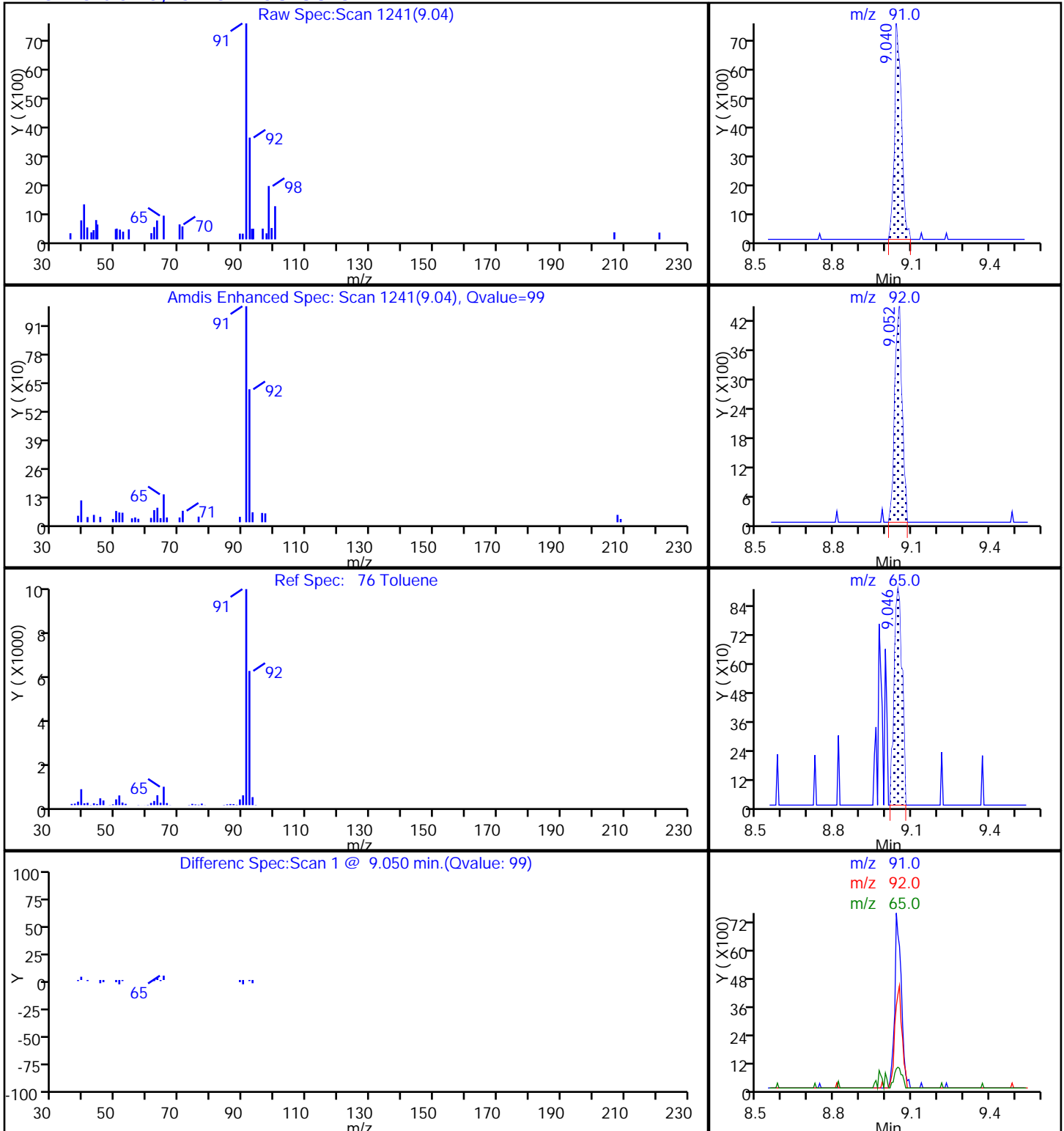
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

76 Toluene, CAS: 108-88-3



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-3 Lab Sample ID: 180-69061-14  
 Matrix: Water Lab File ID: 50810D09.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 03:41  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	4.8	J ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	0.19	J	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-3 Lab Sample ID: 180-69061-14  
 Matrix: Water Lab File ID: 50810D09.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 03:41  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		65-121
2037-26-5	Toluene-d8 (Surr)	83		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D09.D  
 Lims ID: 180-69061-C-14  
 Client ID: HD-QC1-0/1-3  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 03:41:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-009  
 Misc. Info.: 180-69061-C-14  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 04:02:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.376	-0.023	0	292502	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.333	0.007	99	532032	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.423	0.008	85	149677	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.771	-0.004	96	242665	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.615	0.001	92	123997	48.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	153369	49.1	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.975	0.008	93	497191	41.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.609	0.002	86	221690	51.5	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.526	3.524	0.002	99	33382	24.0	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.440	6.432	0.008	1	1721	0.3340	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78	6.993	6.992	0.001	43	6021	0.4654	M
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130		7.722				ND	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91	9.050	9.048	0.002	93	13949	0.9346	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164		9.559				ND	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106	10.680	10.691	-0.011	0	1199	0.1809	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106				0		0.1809	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

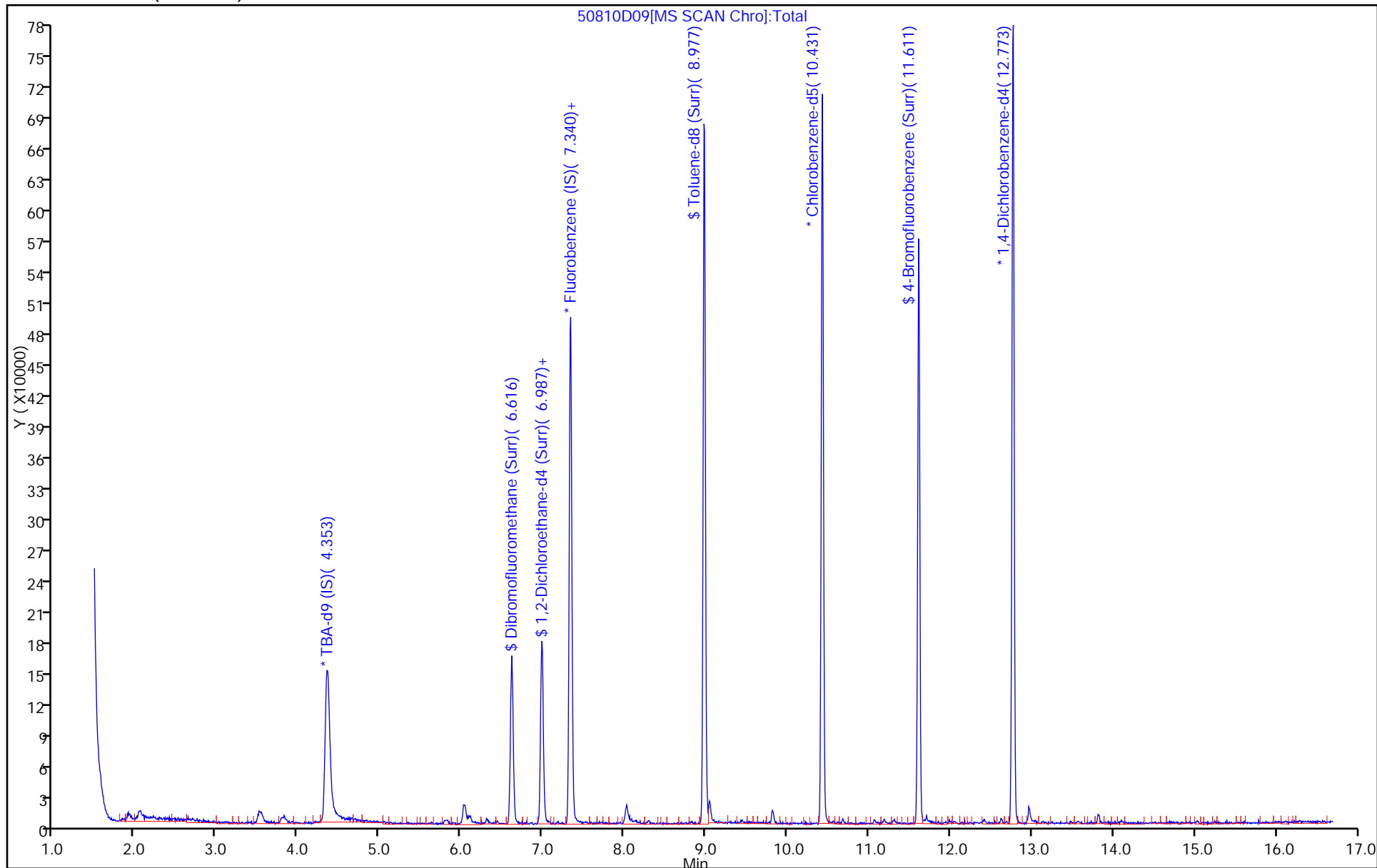
Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D09.D  
Injection Date: 10-Aug-2017 03:41:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-14 Lab Sample ID: 180-69061-14  
Client ID: HD-QC1-0/1-3  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm)

Operator ID: 034635  
Worklist Smp#: 9  
ALS Bottle#: 9



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D09.D  
 Lims ID: 180-69061-C-14  
 Client ID: HD-QC1-0/1-3  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 03:41:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-009  
 Misc. Info.: 180-69061-C-14  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 04:02:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.4	96.88
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.1	98.25
\$ 7 Toluene-d8 (Surr)	50.0	41.7	83.47
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.5	103.06

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D09.D

Injection Date: 10-Aug-2017 03:41:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-14

Lab Sample ID: 180-69061-14

Client ID: HD-QC1-0/1-3

Operator ID: 034635

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

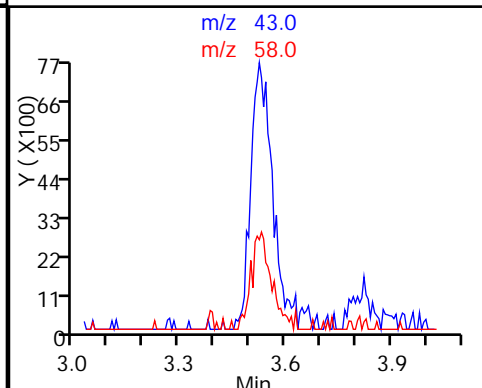
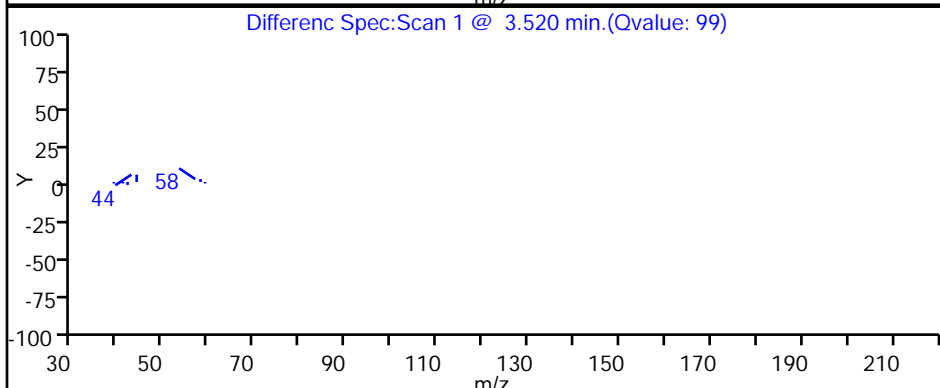
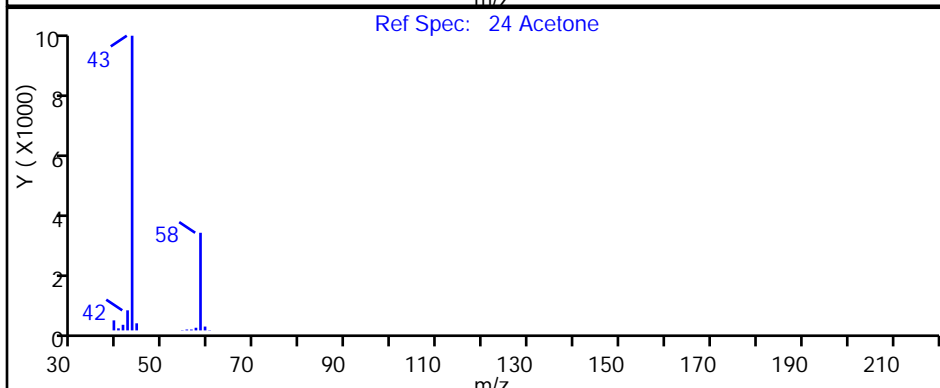
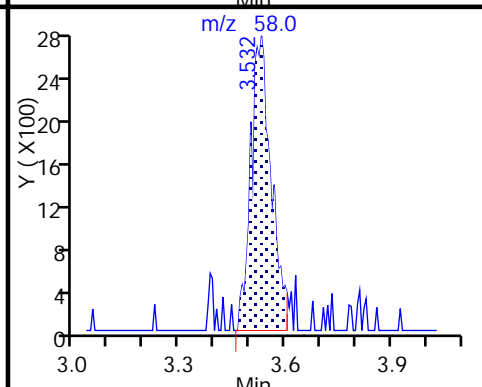
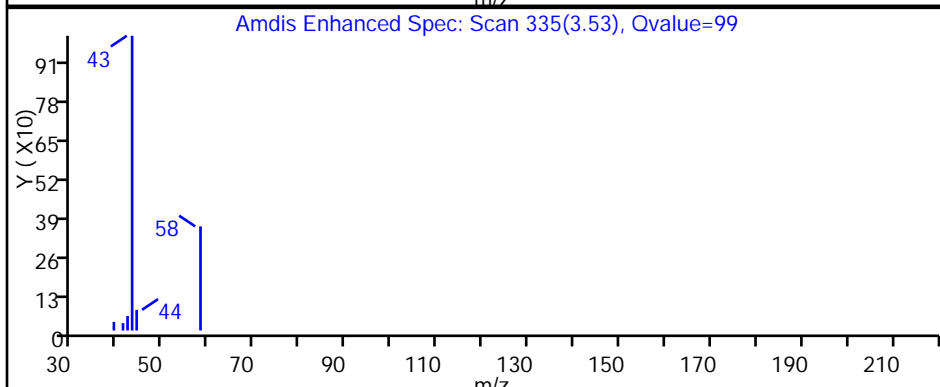
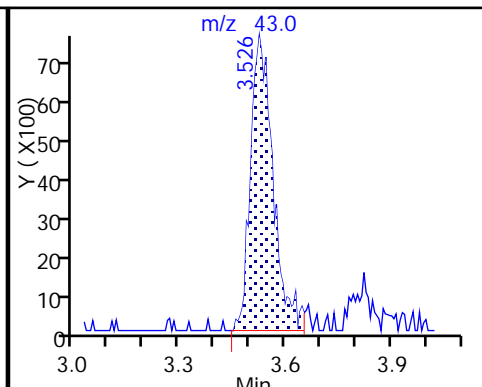
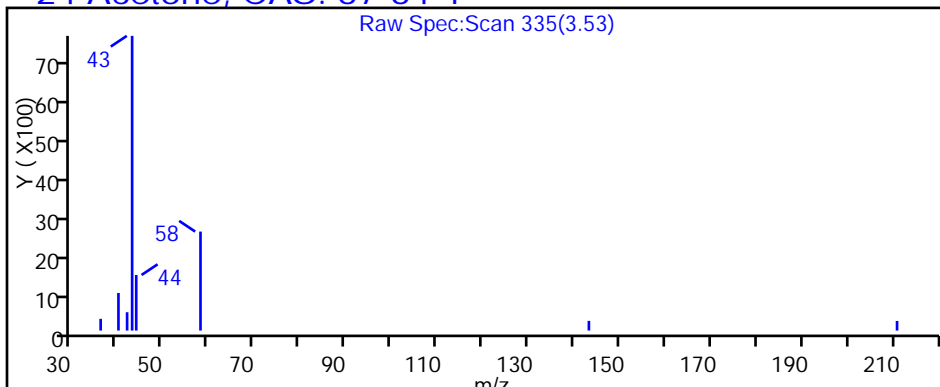
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D09.D

Injection Date: 10-Aug-2017 03:41:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-14

Lab Sample ID: 180-69061-14

Client ID: HD-QC1-0/1-3

Operator ID: 034635

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

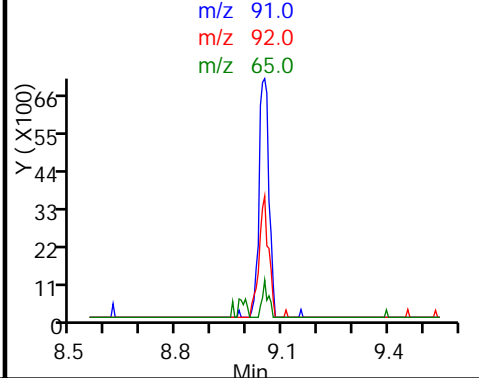
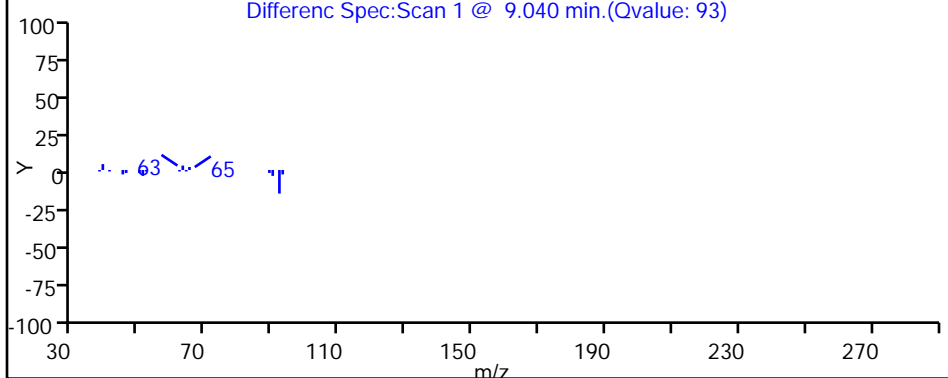
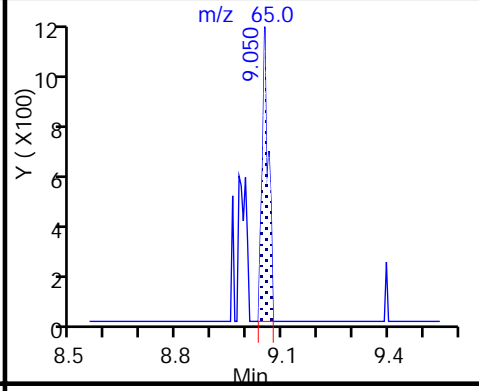
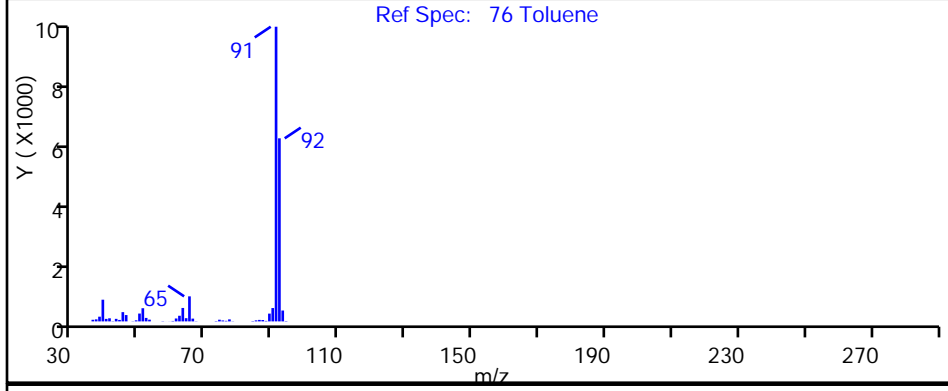
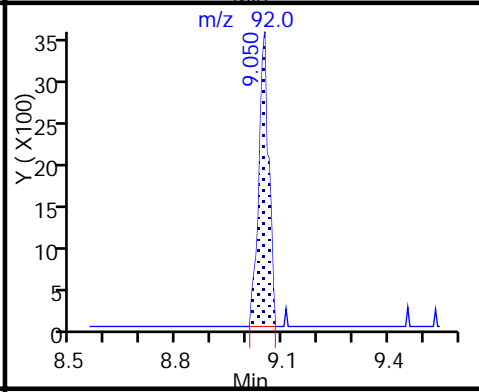
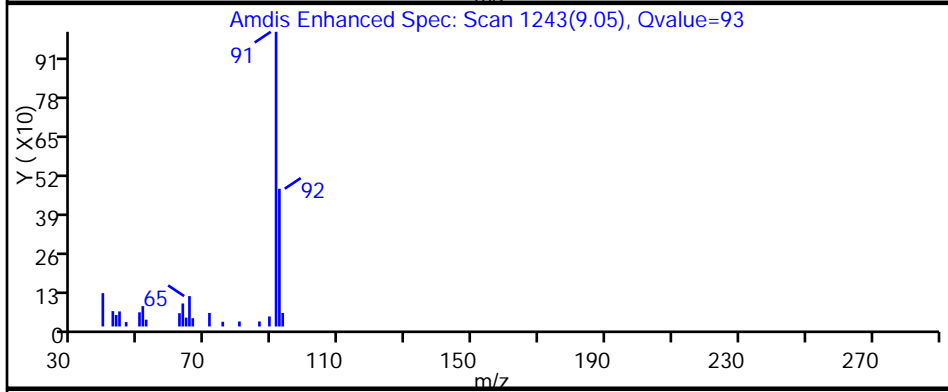
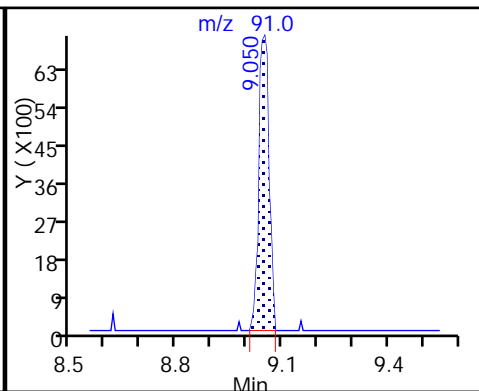
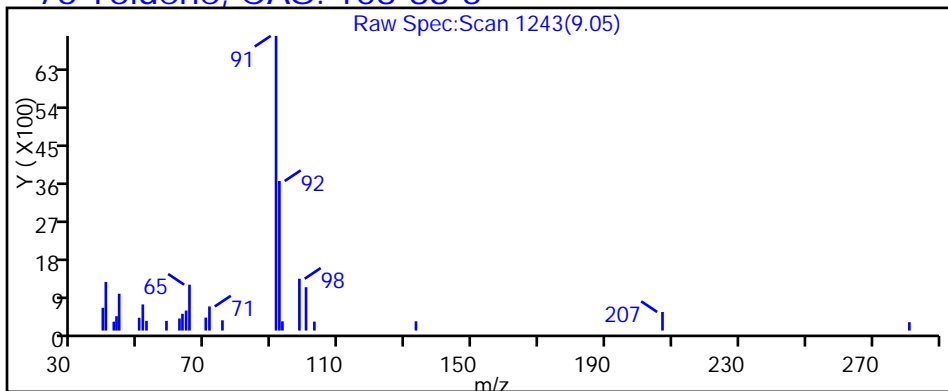
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

76 Toluene, CAS: 108-88-3



TestAmerica Pittsburgh

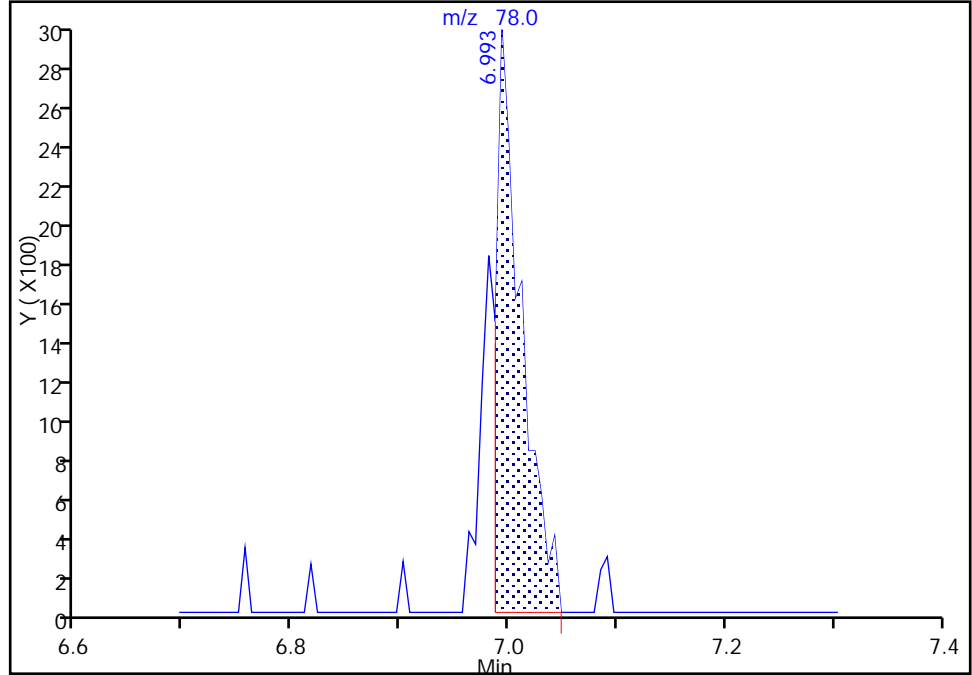
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Injection Date: 10-Aug-2017 03:41:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-14 Lab Sample ID: 180-69061-14  
Client ID: HD-QC1-0/1-3  
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 9  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

58 Benzene, CAS: 71-43-2

Signal: 1

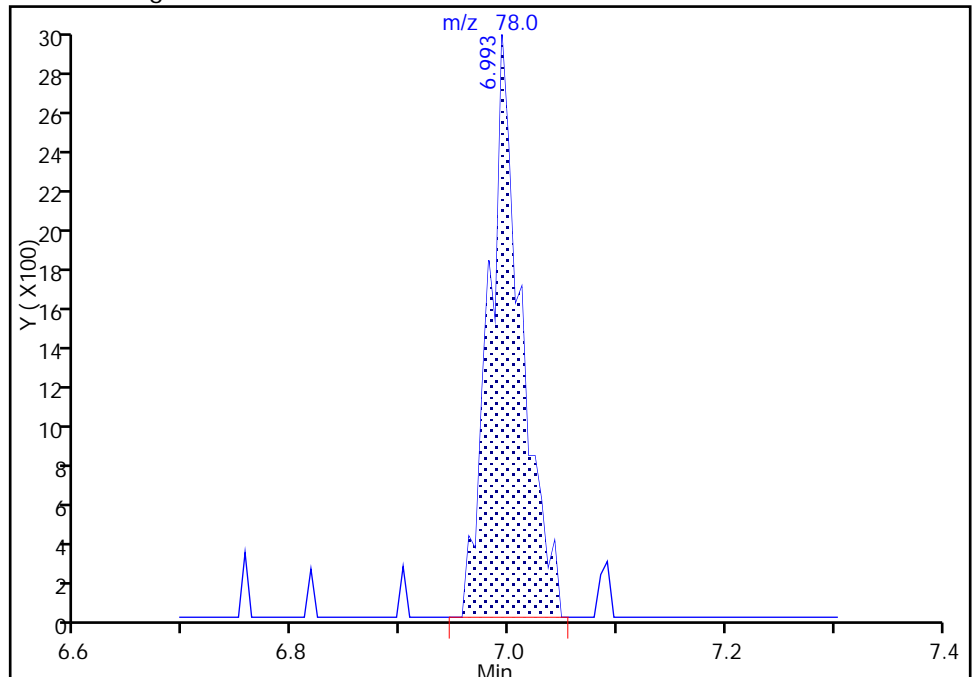
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Area: 4677  
Amount: 0.361540  
Amount Units: ng

Processing Integration Results



RT: 6.99  
Area: 6021  
Amount: 0.465434  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 10-Aug-2017 04:02:25  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-69061-15  
 Matrix: Water Lab File ID: 50810D10.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 00:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 04:05  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.8	^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 180-69061-15  
 Matrix: Water Lab File ID: 50810D10.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 00:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 04:05  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D10.D  
 Lims ID: 180-69061-B-15  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 04:05:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-010  
 Misc. Info.: 180-69061-B-15  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 04:25:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.347	4.376	-0.029	0	301109	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.333	0.007	98	576752	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.423	0.007	86	161831	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.771	0.002	96	257990	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.615	0.001	93	135223	48.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	169415	50.1	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.975	0.008	93	552033	42.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.609	0.002	86	240792	51.8	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.532	3.524	0.008	98	43710	29.0	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.440	6.432	0.008	1	2290	0.4099	M
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130		7.722				ND	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164		9.559				ND	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D10.D

Injection Date: 10-Aug-2017 04:05:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-15

Lab Sample ID: 180-69061-15

Worklist Smp#: 10

Client ID: HD-QC1-0/1-2

Purge Vol: 5.000 mL

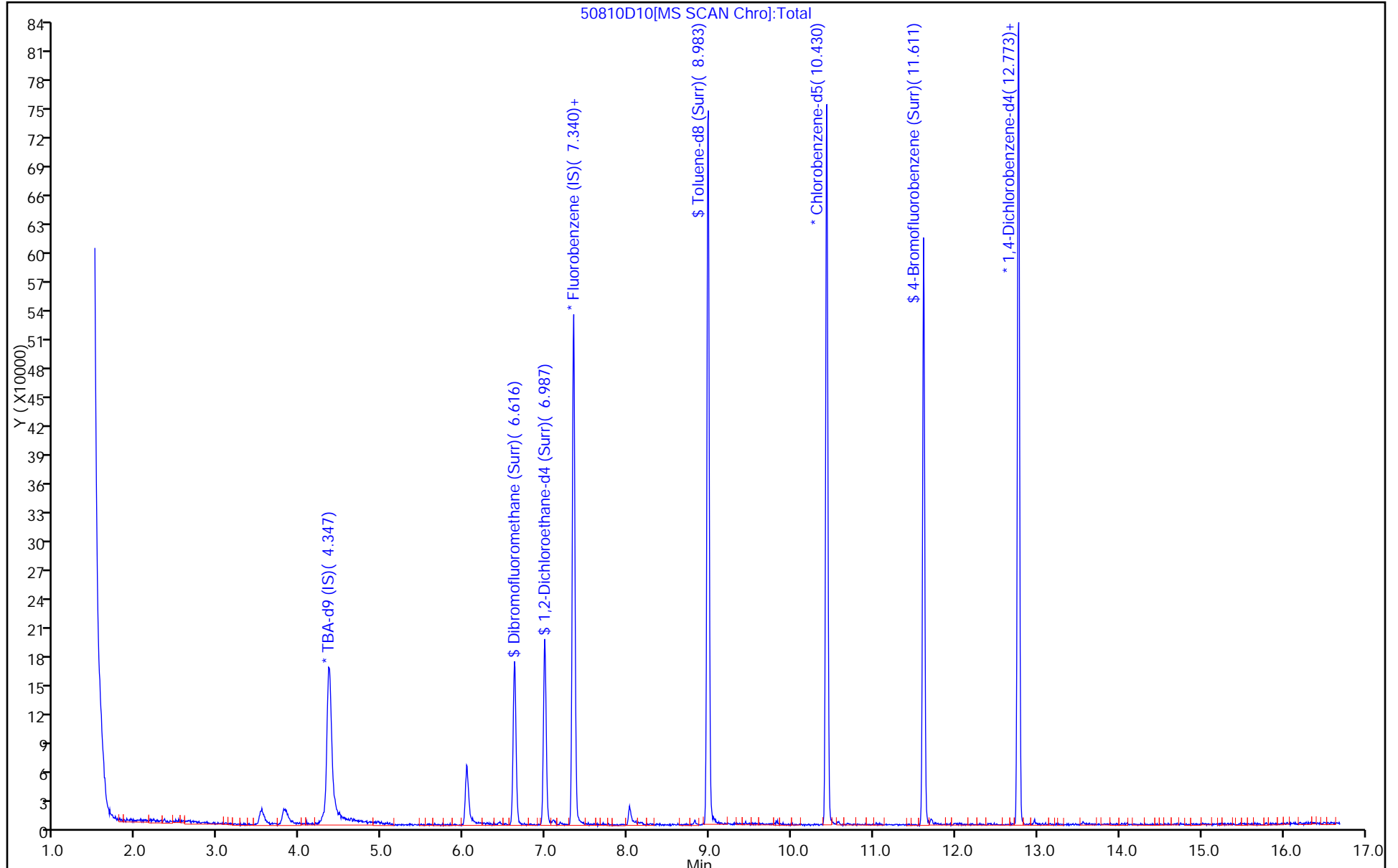
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D10.D  
 Lims ID: 180-69061-B-15  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 04:05:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-010  
 Misc. Info.: 180-69061-B-15  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 04:25:19

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.7	97.46
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.1	100.11
\$ 7 Toluene-d8 (Surr)	50.0	42.9	85.72
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.8	103.53

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D10.D

Injection Date: 10-Aug-2017 04:05:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-15

Lab Sample ID: 180-69061-15

Client ID: HD-QC1-0/1-2

Operator ID: 034635

ALS Bottle#: 10

Worklist Smp#: 10

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

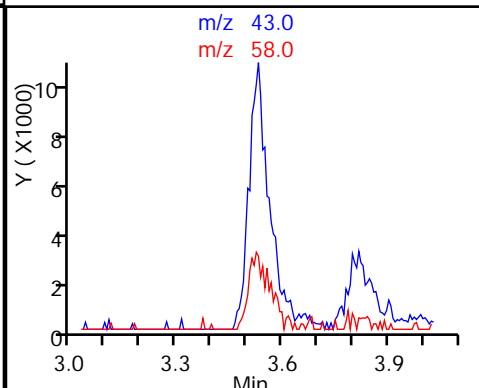
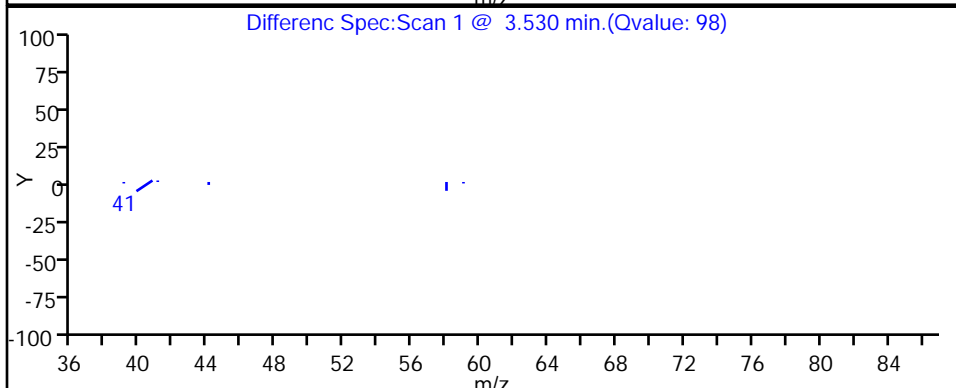
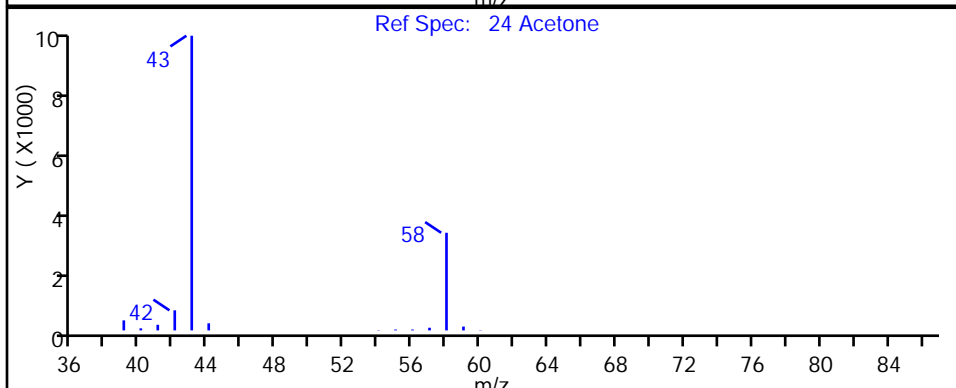
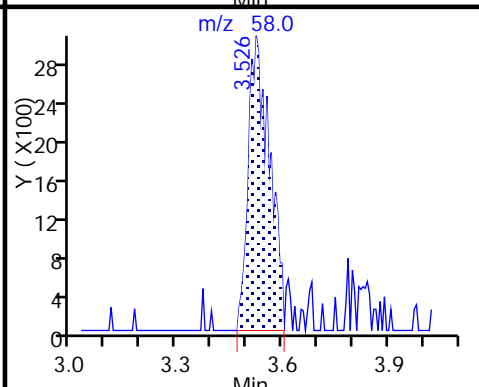
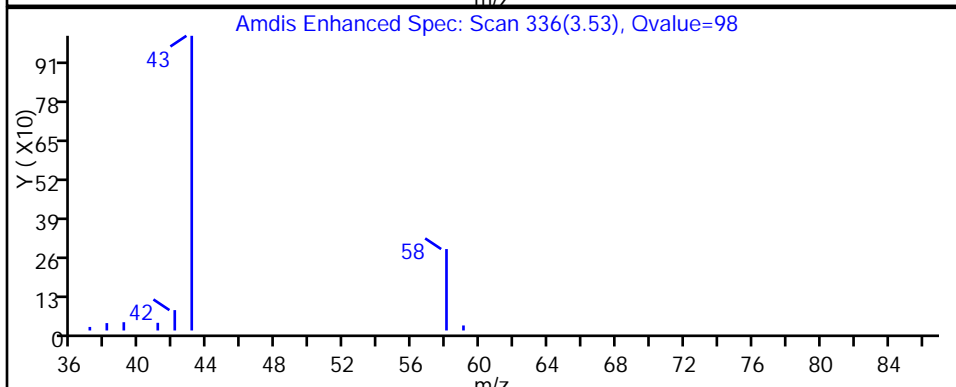
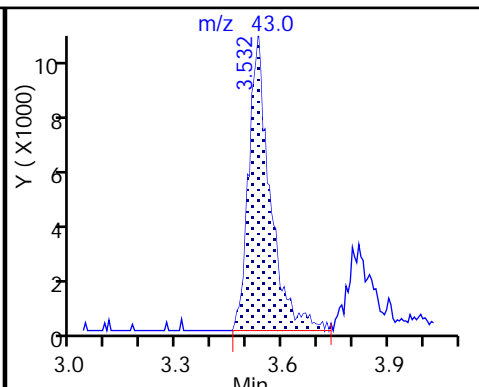
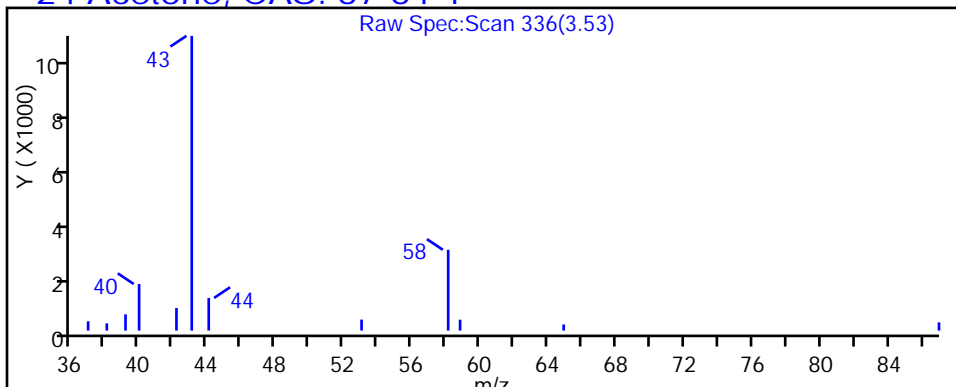
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

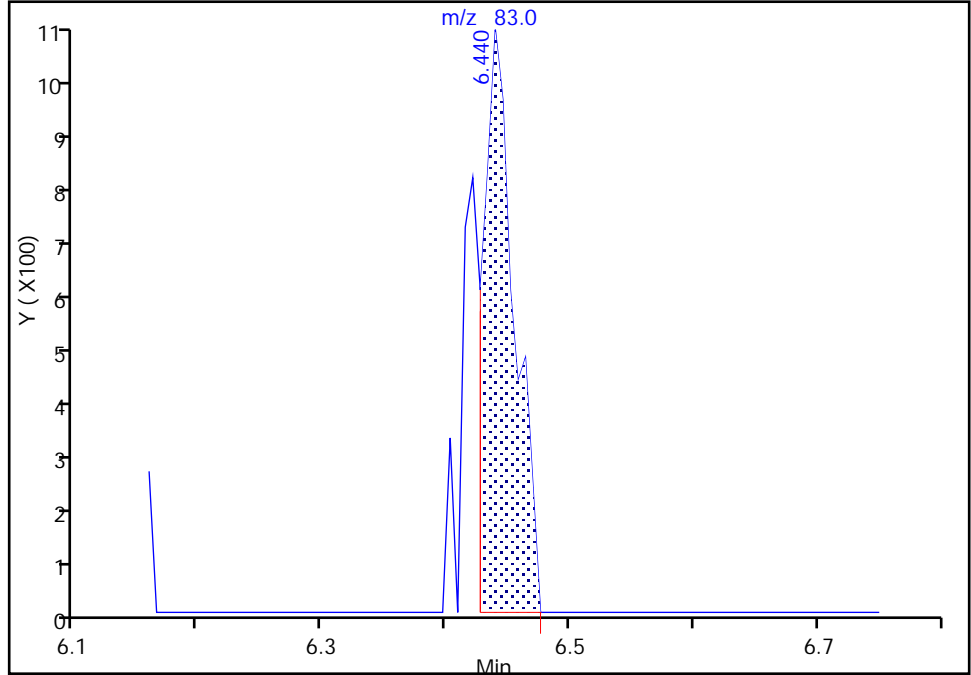
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Injection Date: 10-Aug-2017 04:05:30 Instrument ID: CHHP5  
Lims ID: 180-69061-B-15 Lab Sample ID: 180-69061-15  
Client ID: HD-QC1-0/1-2  
Operator ID: 034635 ALS Bottle#: 10 Worklist Smp#: 10  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

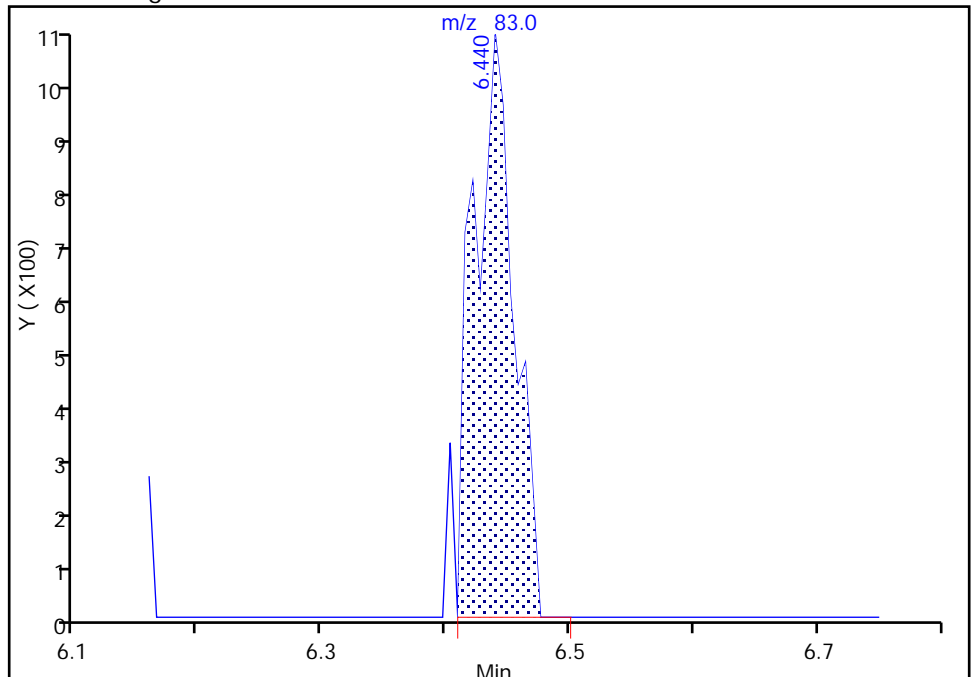
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Amount: 0.317028  
Amount Units: ng

Processing Integration Results



RT: 6.44  
Area: 2290  
Amount: 0.409935  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 10-Aug-2017 04:25:00  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-172-0/1-0 Lab Sample ID: 180-69061-16  
 Matrix: Water Lab File ID: 50810D11.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 10:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 04:29  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-172-0/1-0 Lab Sample ID: 180-69061-16  
 Matrix: Water Lab File ID: 50810D11.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 10:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 04:29  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D11.D  
 Lims ID: 180-69061-C-16  
 Client ID: HD-MW-172-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 04:29:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-011  
 Misc. Info.: 180-69061-C-16  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 23:23:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.350	4.376	-0.026	0	289559	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.333	0.004	98	511448	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.423	0.011	85	143967	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	96	227246	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.613	6.615	-0.002	91	121591	49.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.986	-0.002	0	149645	49.9	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.975	0.005	93	494659	43.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.609	0.005	87	215736	52.1	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.541	3.524	0.017	69	5835	4.36	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.437	6.432	0.005	9	1696	0.3424	M
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130		7.722				ND	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164		9.559				ND	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D11.D

Injection Date: 10-Aug-2017 04:29:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-16

Lab Sample ID: 180-69061-16

Worklist Smp#: 11

Client ID: HD-MW-172-0/1-0

Purge Vol: 5.000 mL

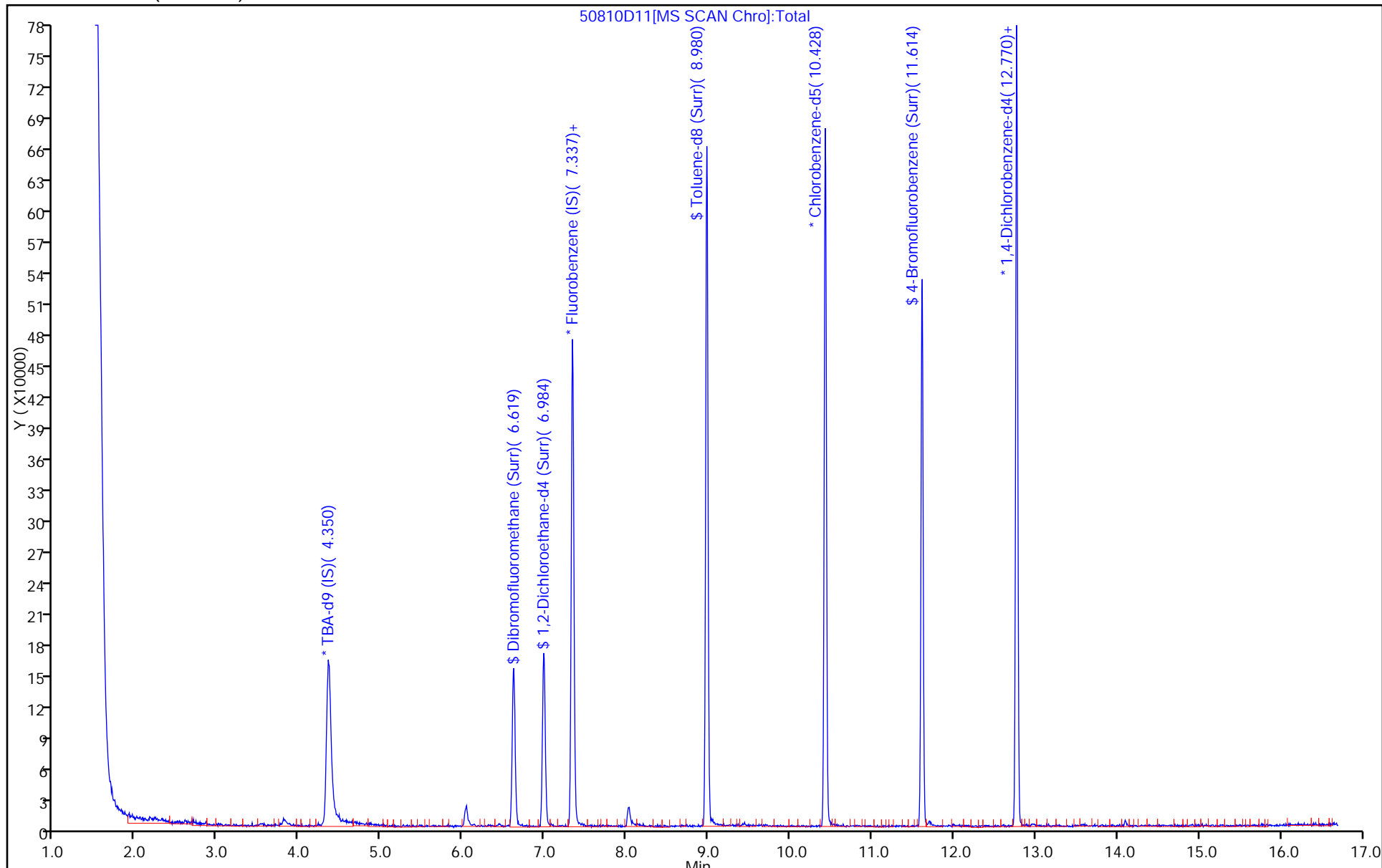
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D11.D  
 Lims ID: 180-69061-C-16  
 Client ID: HD-MW-172-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 04:29:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-011  
 Misc. Info.: 180-69061-C-16  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:23:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.4	98.82
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.9	99.72
\$ 7 Toluene-d8 (Surr)	50.0	43.2	86.34
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.1	104.27

TestAmerica Pittsburgh

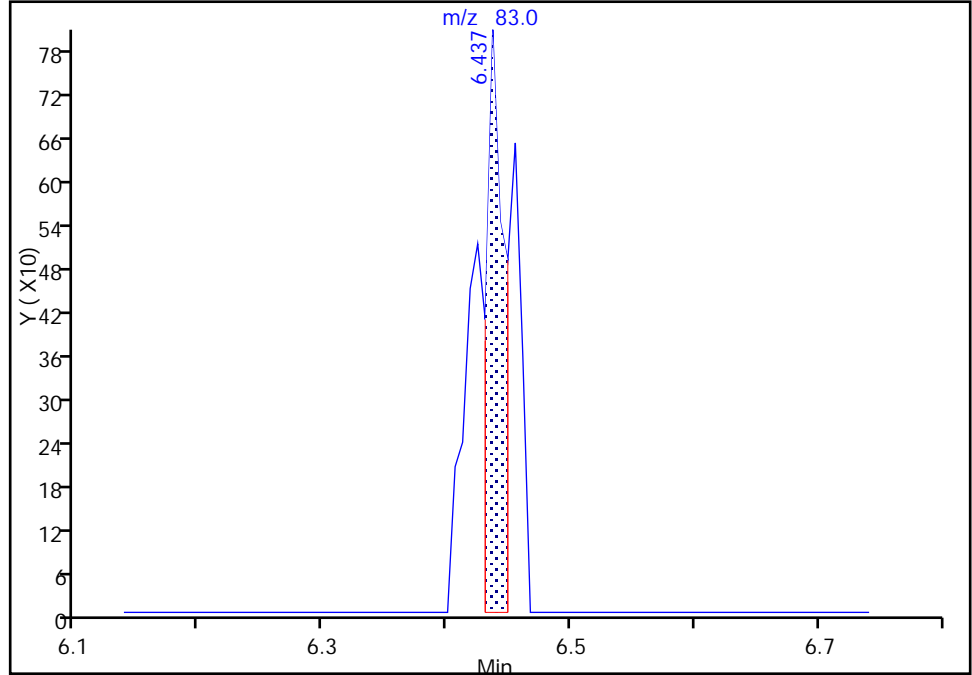
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D11.D  
Injection Date: 10-Aug-2017 04:29:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-16 Lab Sample ID: 180-69061-16  
Client ID: HD-MW-172-0/1-0  
Operator ID: 034635 ALS Bottle#: 11 Worklist Smp#: 11  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

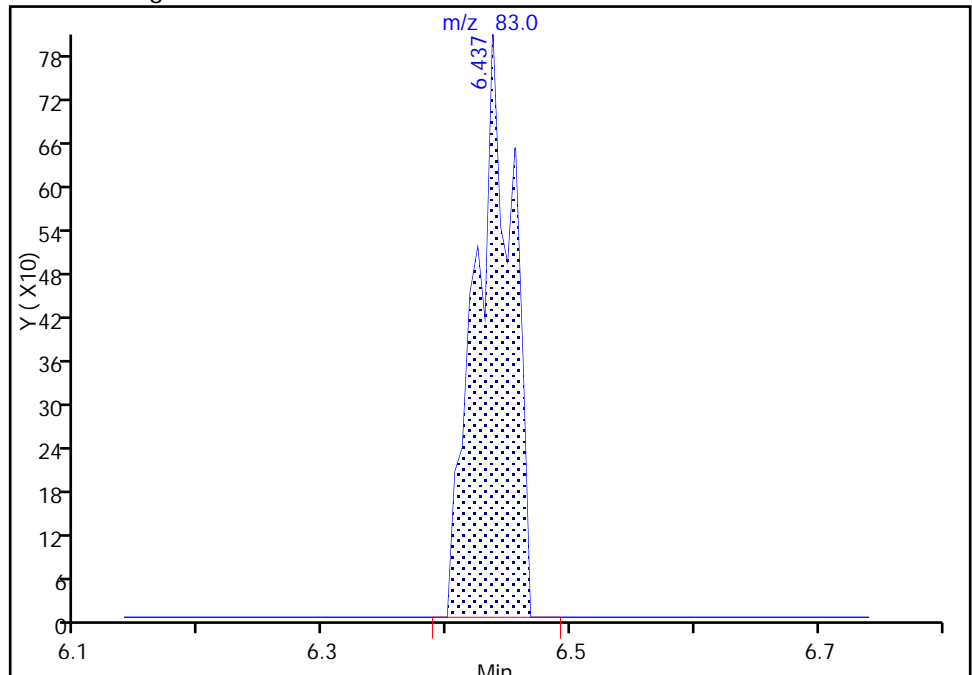
RT: 6.44  
Area: 819  
Amount: 0.165330  
Amount Units: ng

Processing Integration Results



RT: 6.44  
Area: 1696  
Amount: 0.342368  
Amount Units: ng

Manual Integration Results



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-173-0/1-0 Lab Sample ID: 180-69061-17  
 Matrix: Water Lab File ID: 50810D12.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 10:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 04:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-173-0/1-0 Lab Sample ID: 180-69061-17  
 Matrix: Water Lab File ID: 50810D12.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 10:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 04:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D12.D  
 Lims ID: 180-69061-A-17  
 Client ID: HD-MW-173-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 04:53:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-012  
 Misc. Info.: 180-69061-A-17  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:24:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.376	-0.015	0	291400	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.333	0.002	99	513905	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.423	0.009	85	146676	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	97	226192	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.615	0.003	93	125545	50.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.986	-0.003	0	149830	49.7	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.975	0.003	93	499371	42.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.609	0.003	87	207648	49.3	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.521	3.524	-0.003	95	8344	6.21	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83		6.432				ND	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130		7.722				ND	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164		9.559				ND	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D12.D

Injection Date: 10-Aug-2017 04:53:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-A-17

Lab Sample ID: 180-69061-17

Worklist Smp#: 12

Client ID: HD-MW-173-0/1-0

Purge Vol: 5.000 mL

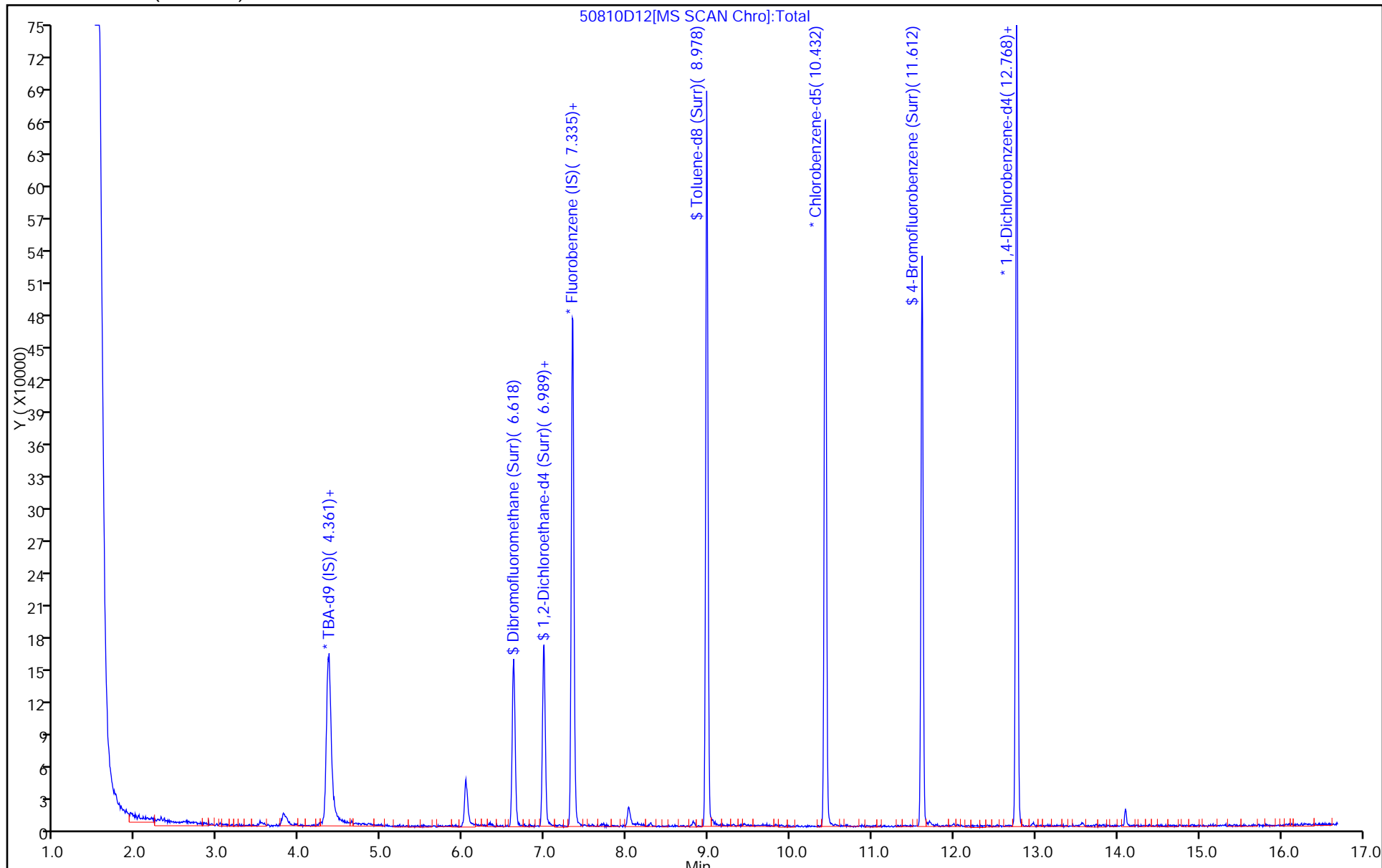
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D12.D  
 Lims ID: 180-69061-A-17  
 Client ID: HD-MW-173-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 04:53:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-012  
 Misc. Info.: 180-69061-A-17  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 23:24:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.8	101.55
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.7	99.36
\$ 7 Toluene-d8 (Surr)	50.0	42.8	85.56
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.3	98.50

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-108D-0/1-0 Lab Sample ID: 180-69061-18  
 Matrix: Water Lab File ID: 50810D13.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 12:28  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 05:17  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	0.38	J	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	0.69	J	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.4		1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-108D-0/1-0 Lab Sample ID: 180-69061-18  
 Matrix: Water Lab File ID: 50810D13.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 12:28  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 05:17  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D13.D  
 Lims ID: 180-69061-B-18  
 Client ID: HD-MW-108D-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 05:17:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-013  
 Misc. Info.: 180-69061-B-18  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:25:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.376	-0.022	0	286099	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.333	0.001	98	510212	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.423	0.008	85	143640	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.771	0.002	96	223906	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.617	6.615	0.002	93	124224	50.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.986	0.002	0	149735	50.0	
\$ 7 Toluene-d8 (Surr)	98	8.977	8.975	0.002	93	483526	42.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.609	0.002	92	212454	51.5	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.526	3.524	0.002	69	12210	9.15	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.440	6.432	0.008	90	9291	1.88	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.724	7.722	0.002	96	10819	3.47	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.555	9.559	-0.004	94	19192	7.03	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D13.D

Injection Date: 10-Aug-2017 05:17:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-18

Lab Sample ID: 180-69061-18

Worklist Smp#: 13

Client ID: HD-MW-108D-0/1-0

Purge Vol: 5.000 mL

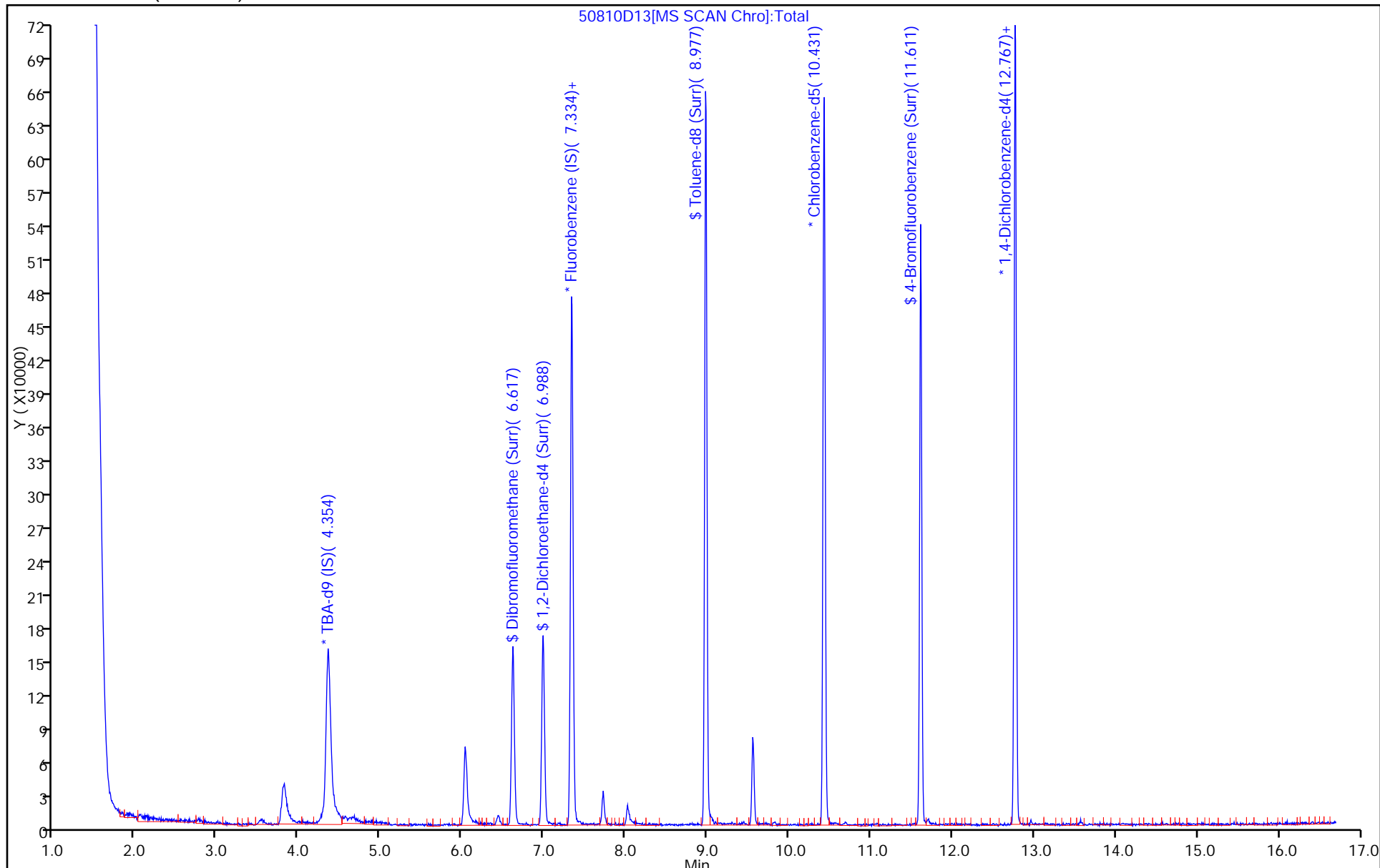
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D13.D  
 Lims ID: 180-69061-B-18  
 Client ID: HD-MW-108D-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 05:17:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-013  
 Misc. Info.: 180-69061-B-18  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 23:25:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.6	101.21
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.0	100.02
\$ 7 Toluene-d8 (Surr)	50.0	42.3	84.59
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.5	102.91



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D13.D

Injection Date: 10-Aug-2017 05:17:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-18

Lab Sample ID: 180-69061-18

Client ID: HD-MW-108D-0/1-0

Operator ID: 034635

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

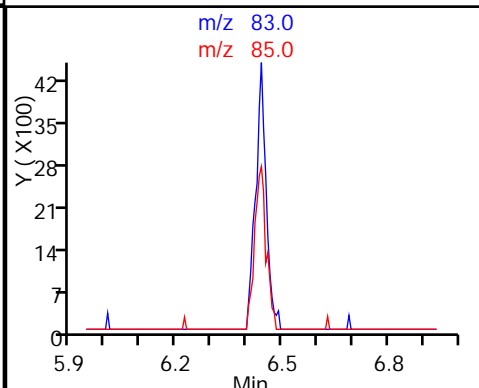
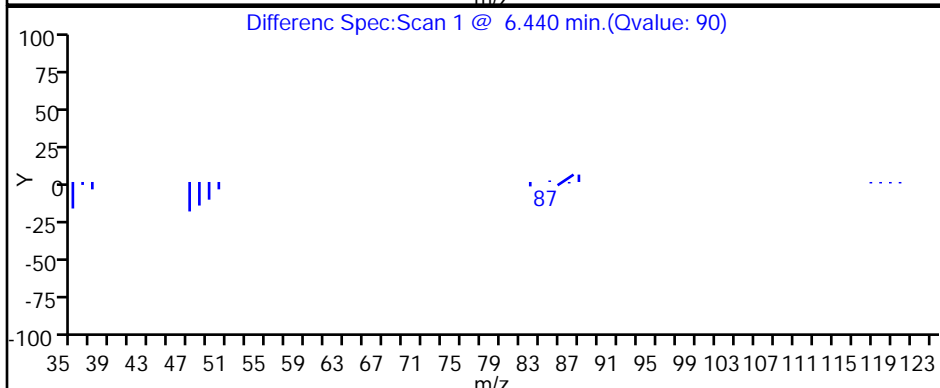
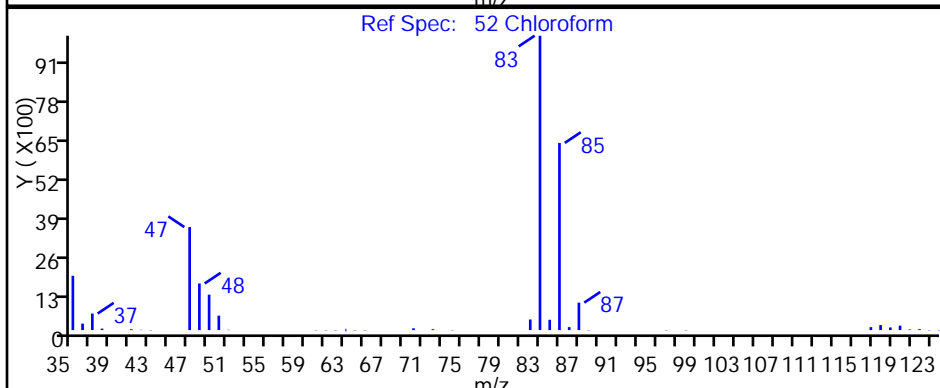
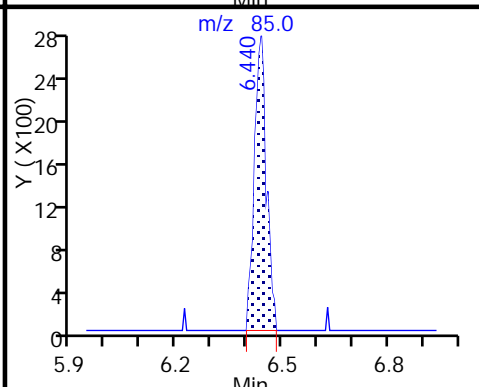
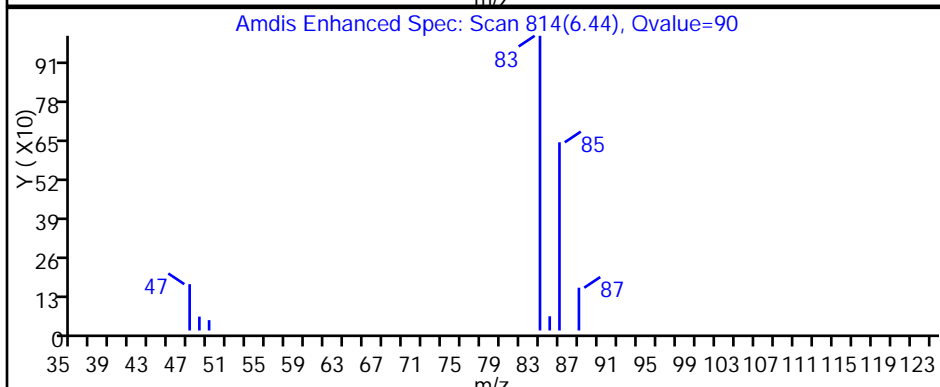
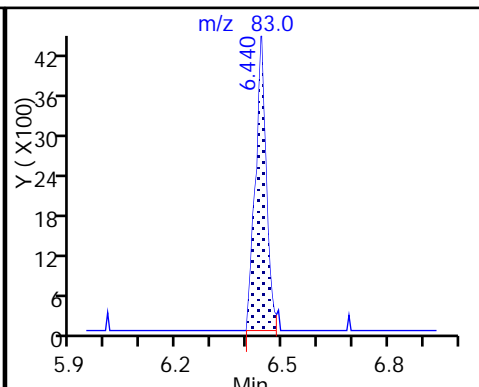
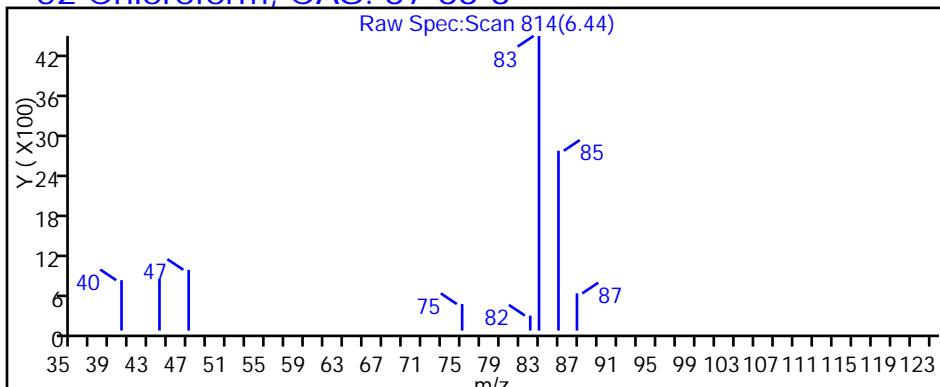
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

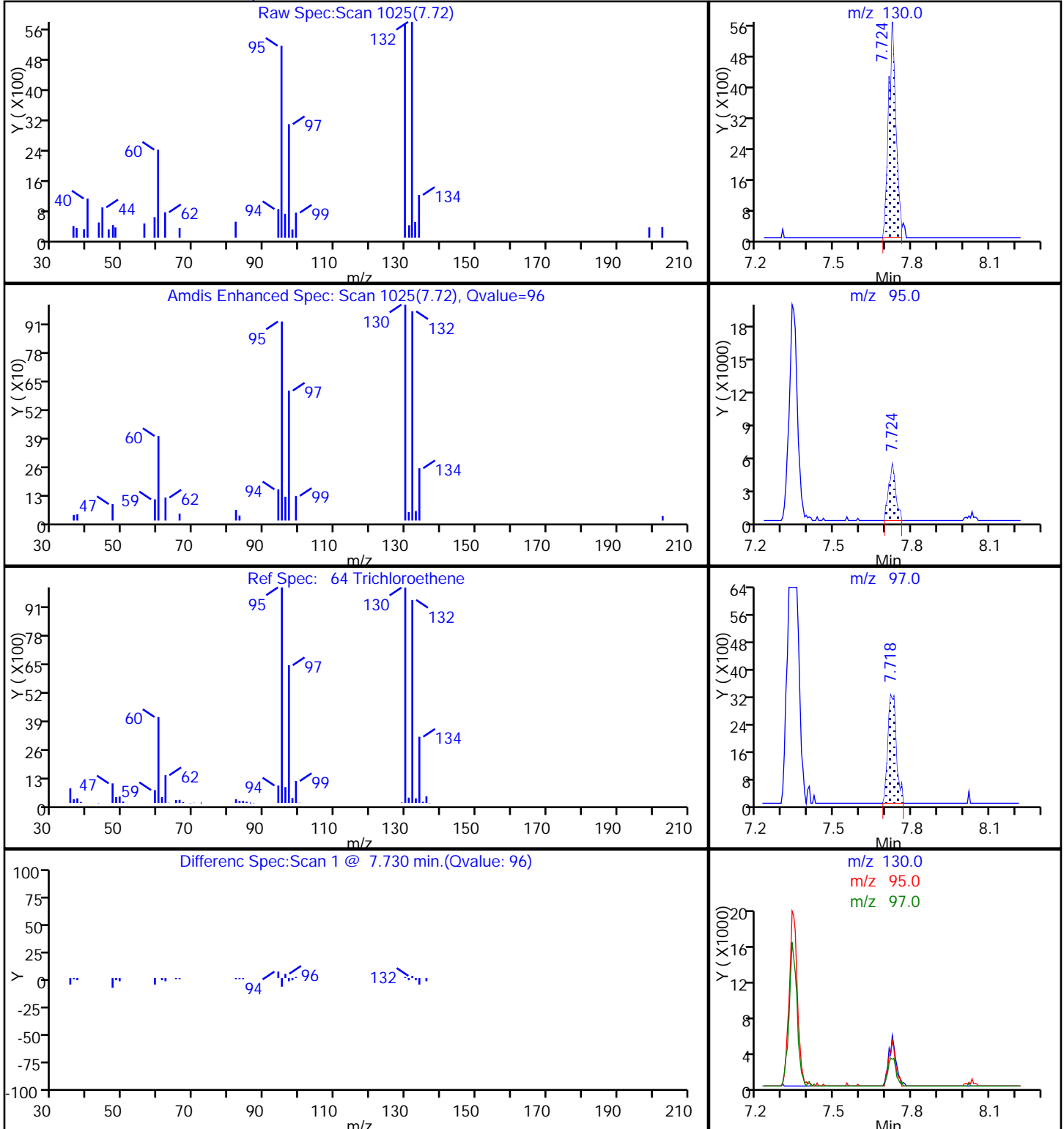
52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D13.D  
Injection Date: 10-Aug-2017 05:17:30 Instrument ID: CHHP5  
Lims ID: 180-69061-B-18 Lab Sample ID: 180-69061-18  
Client ID: HD-MW-108D-0/1-0  
Operator ID: 034635 ALS Bottle#: 13 Worklist Smp#: 13  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

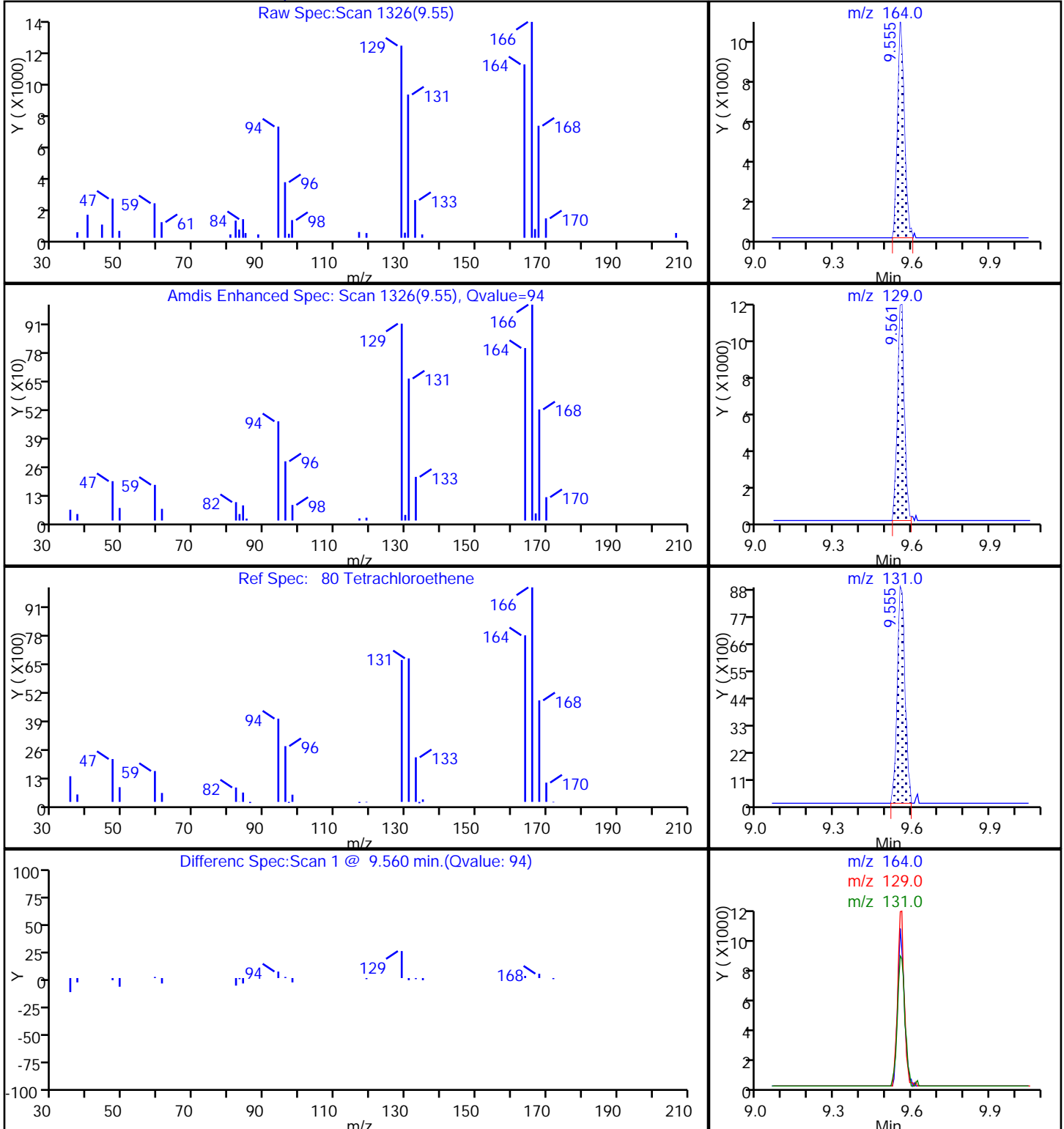
64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D13.D  
Injection Date: 10-Aug-2017 05:17:30 Instrument ID: CHHP5  
Lims ID: 180-69061-B-18 Lab Sample ID: 180-69061-18  
Client ID: HD-MW-108D-0/1-0  
Operator ID: 034635 ALS Bottle#: 13 Worklist Smp#: 13  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-108S-0/1-0 Lab Sample ID: 180-69061-19  
 Matrix: Water Lab File ID: 50810D15.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 15:08  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 06:04  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-108S-0/1-0 Lab Sample ID: 180-69061-19  
 Matrix: Water Lab File ID: 50810D15.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 15:08  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 06:04  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D15.D  
 Lims ID: 180-69061-C-19  
 Client ID: HD-MW-108S-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 06:04:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-015  
 Misc. Info.: 180-69061-C-19  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:26:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.352	4.376	-0.024	0	283071	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.333	0.006	98	500927	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.423	0.007	86	145312	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.771	0.001	96	226895	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	93	120833	50.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.986	0.001	0	152942	52.0	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.975	0.007	93	488862	42.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.609	0.001	86	215927	51.7	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.525	3.524	0.001	97	9698	7.40	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.439	6.432	0.007	1	2095	0.4318	M
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130		7.722				ND	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164		9.559				ND	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Review Flags

M - Manually Integrated

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D15.D

Injection Date: 10-Aug-2017 06:04:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-19

Lab Sample ID: 180-69061-19

Worklist Smp#: 15

Client ID: HD-MW-108S-0/1-0

Purge Vol: 5.000 mL

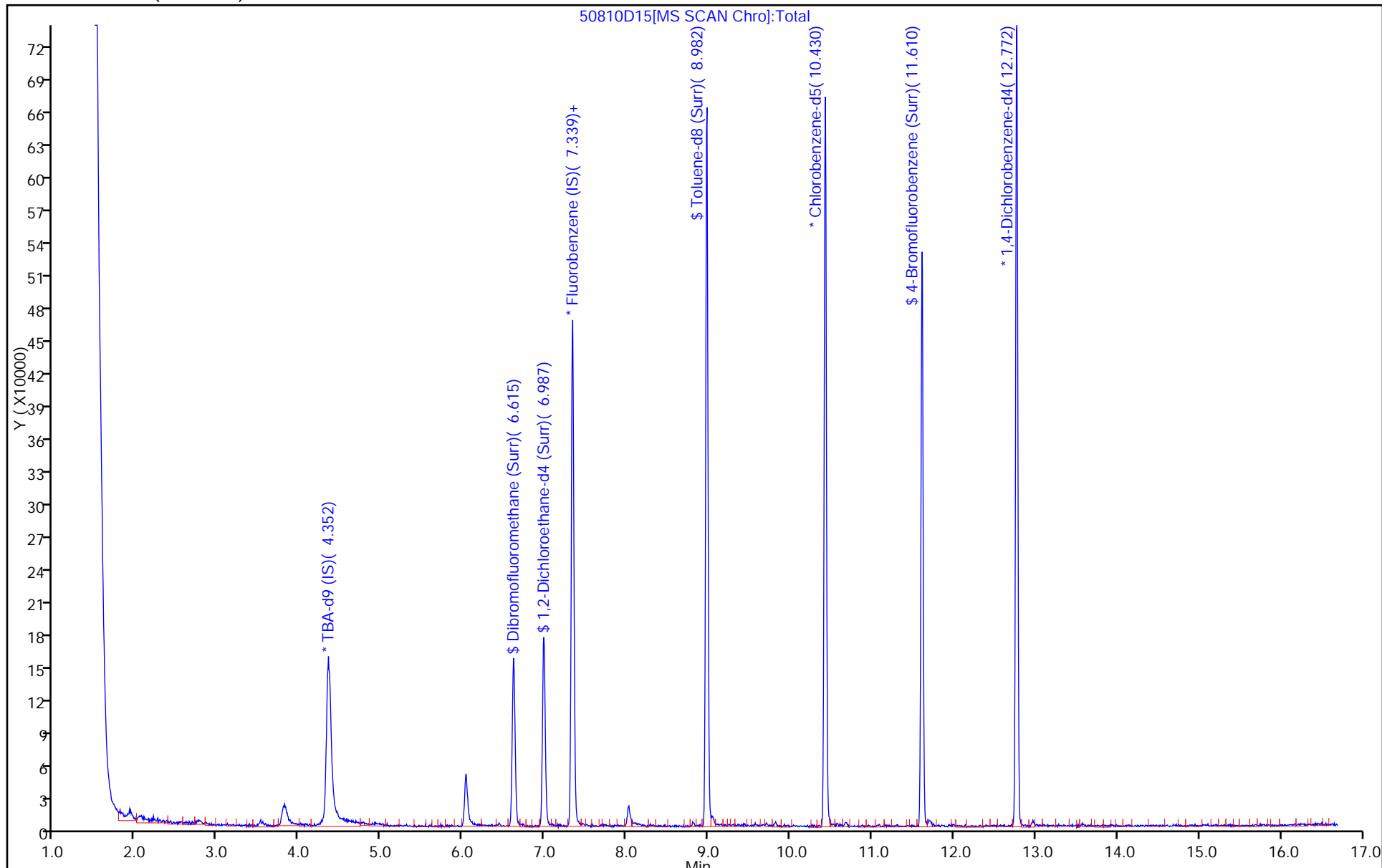
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D15.D  
 Lims ID: 180-69061-C-19  
 Client ID: HD-MW-108S-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 06:04:30 ALS Bottle#: 15 Worklist Smp#: 15  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-015  
 Misc. Info.: 180-69061-C-19  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 23:26:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.1	100.27
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	52.0	104.06
\$ 7 Toluene-d8 (Surr)	50.0	42.3	84.54
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.7	103.39

TestAmerica Pittsburgh

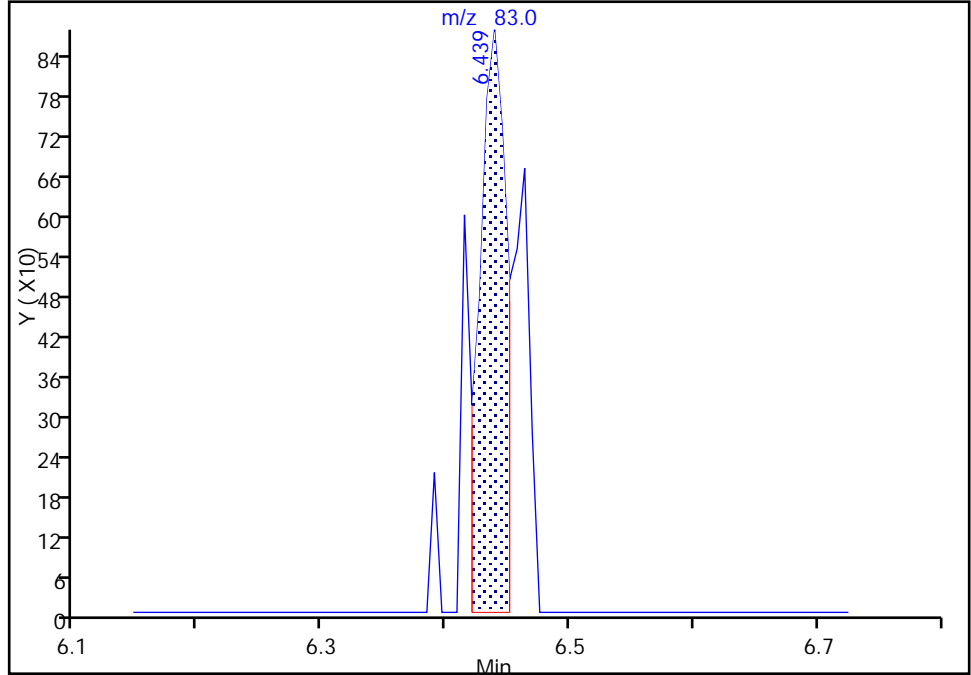
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D15.D  
Injection Date: 10-Aug-2017 06:04:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-19 Lab Sample ID: 180-69061-19  
Client ID: HD-MW-108S-0/1-0  
Operator ID: 034635 ALS Bottle#: 15 Worklist Smp#: 15  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

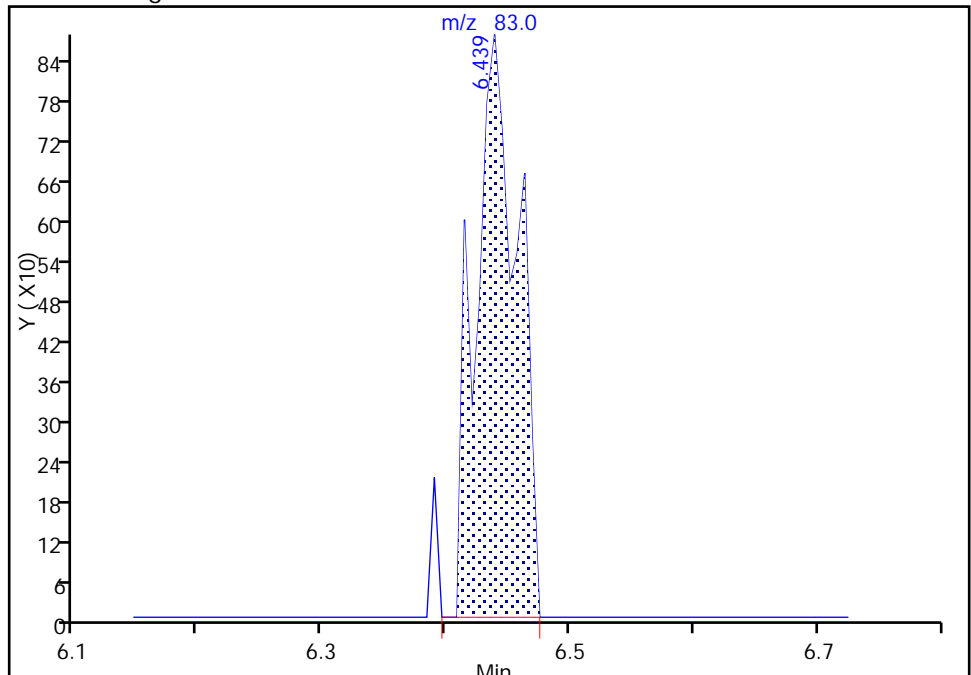
RT: 6.44  
Area: 1336  
Amount: 0.275360  
Amount Units: ng

Processing Integration Results



RT: 6.44  
Area: 2095  
Amount: 0.431796  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 10-Aug-2017 23:26:09  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-64S-0/1-0 Lab Sample ID: 180-69061-20  
 Matrix: Water Lab File ID: 50810D16.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 07:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 06:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.9
75-01-4	Vinyl chloride	5.0	U	5.0	0.84
74-83-9	Bromomethane	5.0	U	5.0	2.9
75-00-3	Chloroethane	5.0	U	5.0	2.9
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.6
67-64-1	Acetone	25	U ^c	25	16
75-15-0	Carbon disulfide	5.0	U ^c	5.0	2.6
75-09-2	Methylene Chloride	5.0	U	5.0	4.7
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	1.0
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.98
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.7
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	1.5
74-97-5	Bromochloromethane	5.0	U	5.0	1.8
78-93-3	2-Butanone (MEK)	25	U	25	13
67-66-3	Chloroform	5.0	U	5.0	1.3
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	2.8
71-43-2	Benzene	5.0	U	5.0	0.91
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.2
79-01-6	Trichloroethene	11		5.0	0.99
78-87-5	1,2-Dichloropropane	5.0	U	5.0	1.7
75-27-4	Bromodichloromethane	5.0	U	5.0	2.9
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	11
108-88-3	Toluene	5.0	U	5.0	0.78
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	1.1
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.5
127-18-4	Tetrachloroethene	39		5.0	1.2
591-78-6	2-Hexanone	25	U	25	10
124-48-1	Dibromochloromethane	5.0	U	5.0	2.2
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	2.6
108-90-7	Chlorobenzene	5.0	U	5.0	0.73
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.5
100-41-4	Ethylbenzene	5.0	U	5.0	1.3
1330-20-7	Xylenes, Total	10	U	10	1.4
100-42-5	Styrene	5.0	U	5.0	1.1

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-64S-0/1-0 Lab Sample ID: 180-69061-20  
 Matrix: Water Lab File ID: 50810D16.D  
 Analysis Method: 8260C Date Collected: 08/03/2017 07:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 06:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	3.8
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.9
107-13-1	Acrylonitrile	100	U	100	17
123-91-1	1,4-Dioxane	1000	U	1000	78

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	105		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D16.D  
 Lims ID: 180-69061-B-20  
 Client ID: HD-MW-64S-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 06:28:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017967-016  
 Misc. Info.: 180-69061-B-20  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:27:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.352	4.376	-0.024	0	278837	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.333	0.006	98	502520	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.423	0.006	86	140592	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.771	0.001	96	222260	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	92	125527	51.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	150443	51.0	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.975	0.007	93	478063	42.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.616	11.609	0.007	87	211274	52.3	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.537	3.524	0.013	82	8530	6.49	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83		6.432				ND	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.716	7.722	-0.006	99	33223	10.8	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.559	9.559	0.000	95	104463	39.1	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D16.D

Injection Date: 10-Aug-2017 06:28:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-20

Lab Sample ID: 180-69061-20

Worklist Smp#: 16

Client ID: HD-MW-64S-0/1-0

Purge Vol: 5.000 mL

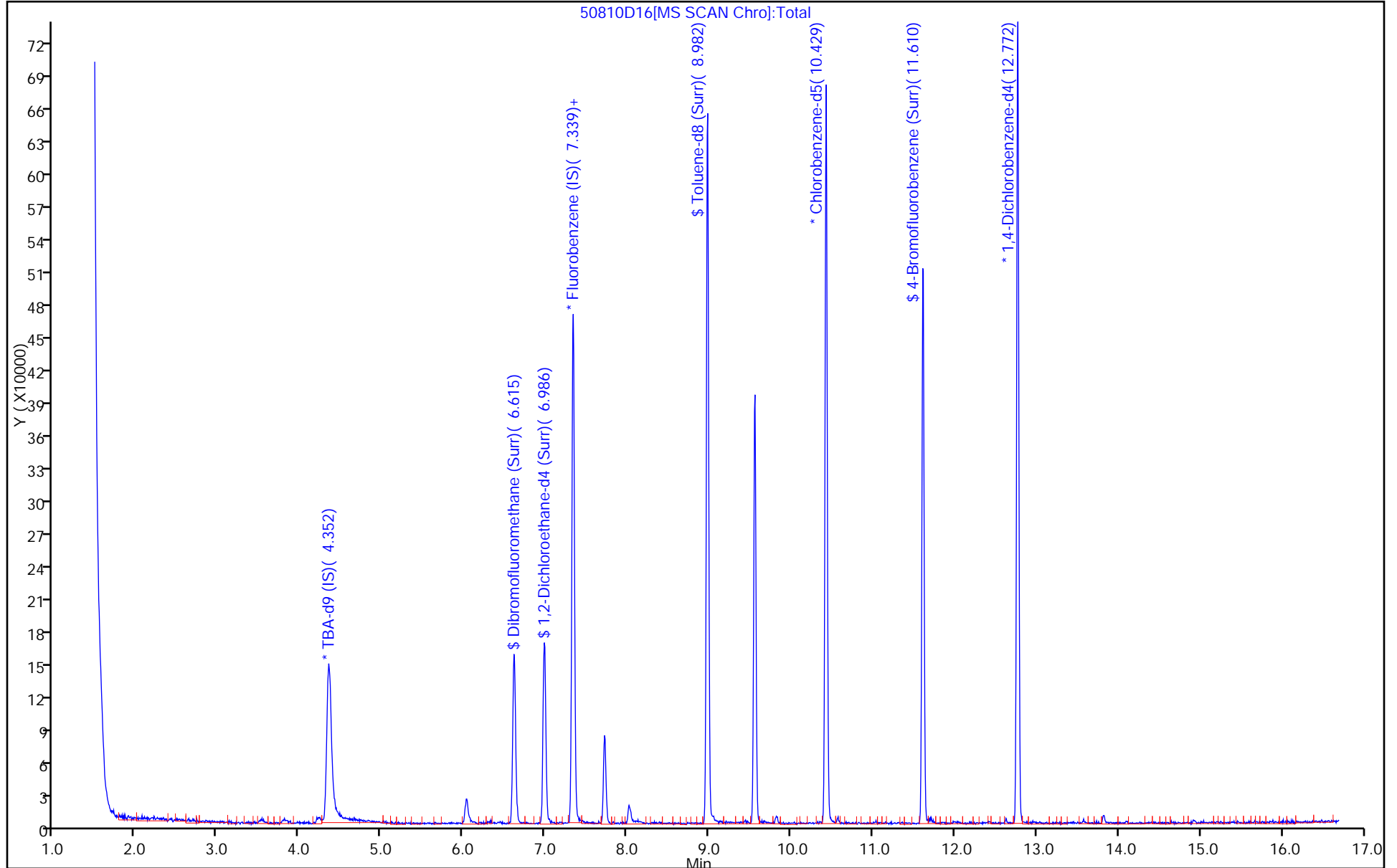
Dil. Factor: 5.0000

ALS Bottle#: 16

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D16.D  
 Lims ID: 180-69061-B-20  
 Client ID: HD-MW-64S-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 06:28:30 ALS Bottle#: 16 Worklist Smp#: 16  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017967-016  
 Misc. Info.: 180-69061-B-20  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf Date: 10-Aug-2017 23:27:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.9	103.83
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.0	102.03
\$ 7 Toluene-d8 (Surr)	50.0	42.7	85.45
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.3	104.56



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D16.D

Injection Date: 10-Aug-2017 06:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-20

Lab Sample ID: 180-69061-20

Client ID: HD-MW-64S-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

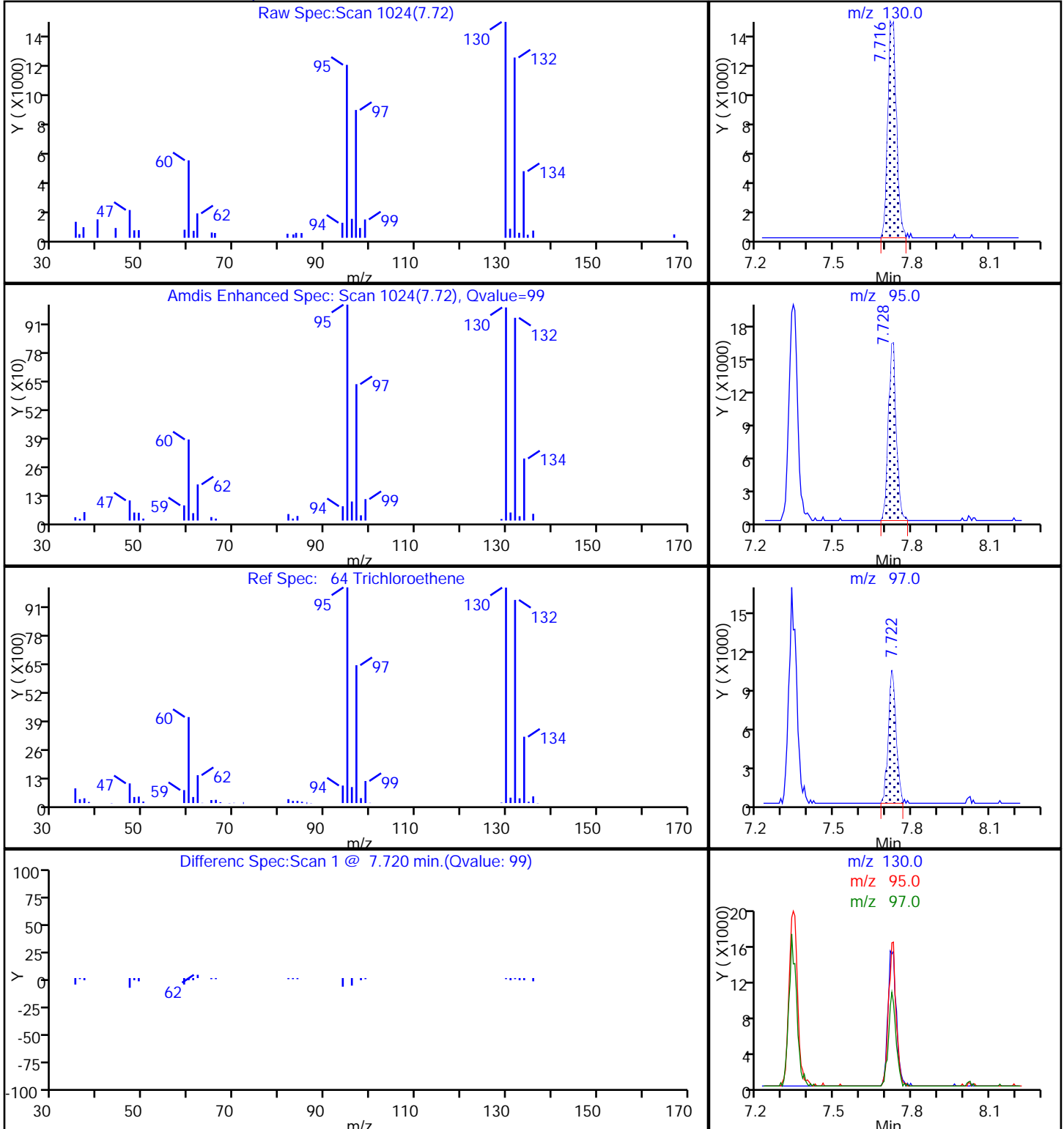
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D16.D

Injection Date: 10-Aug-2017 06:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-20

Lab Sample ID: 180-69061-20

Client ID: HD-MW-64S-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

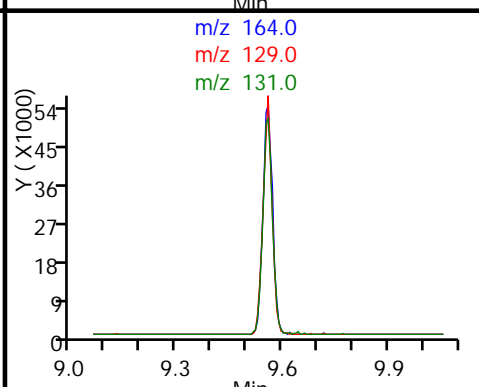
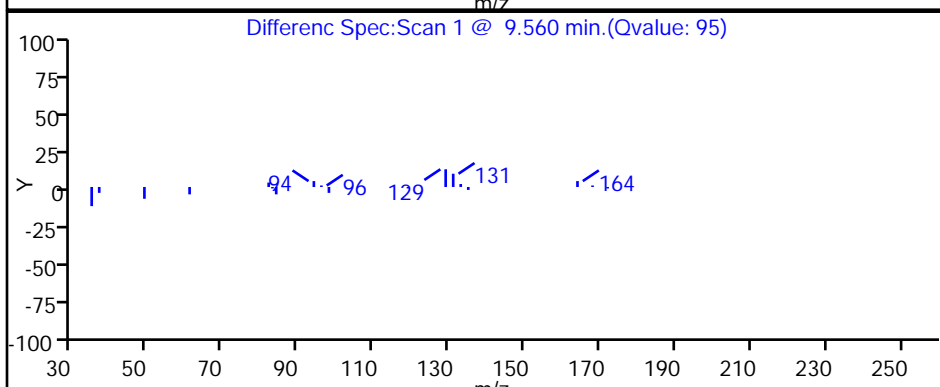
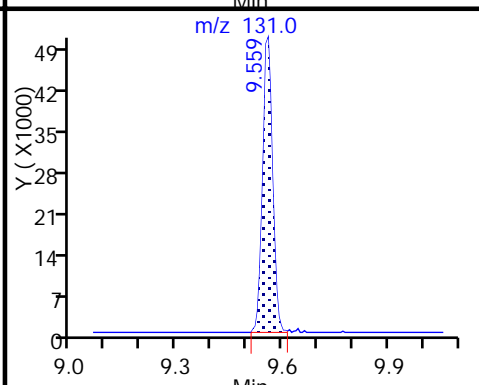
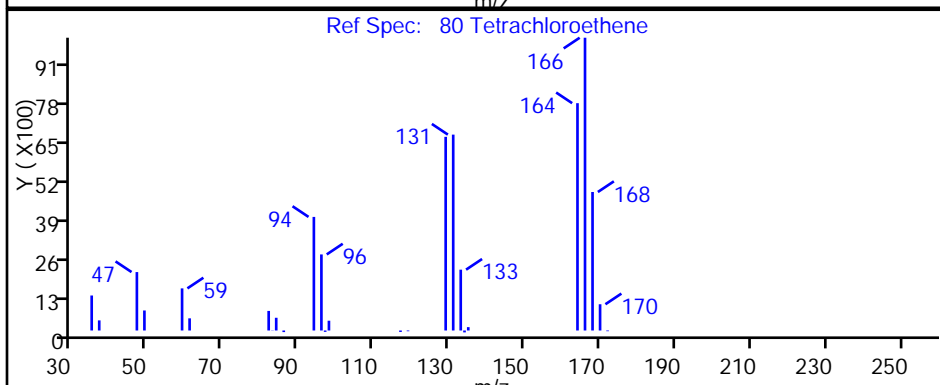
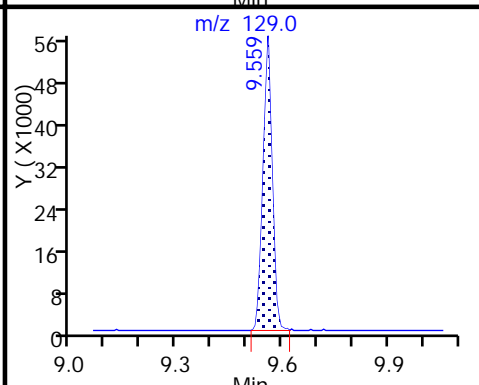
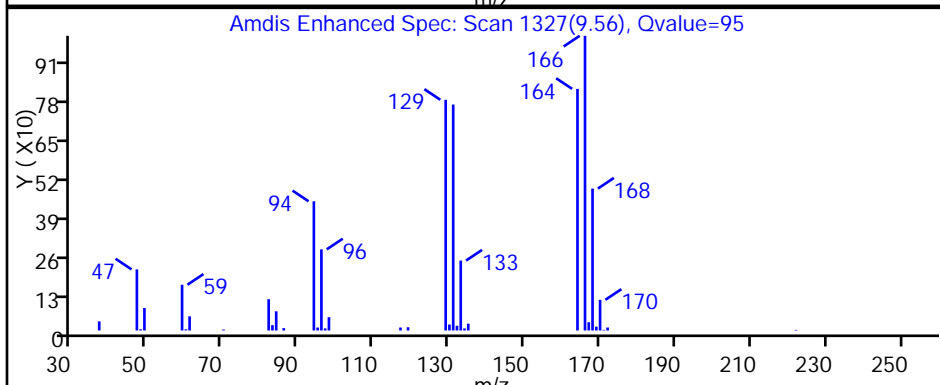
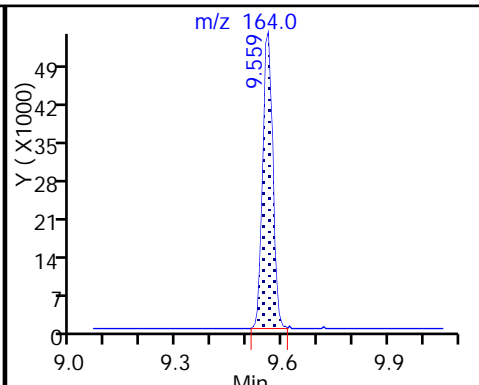
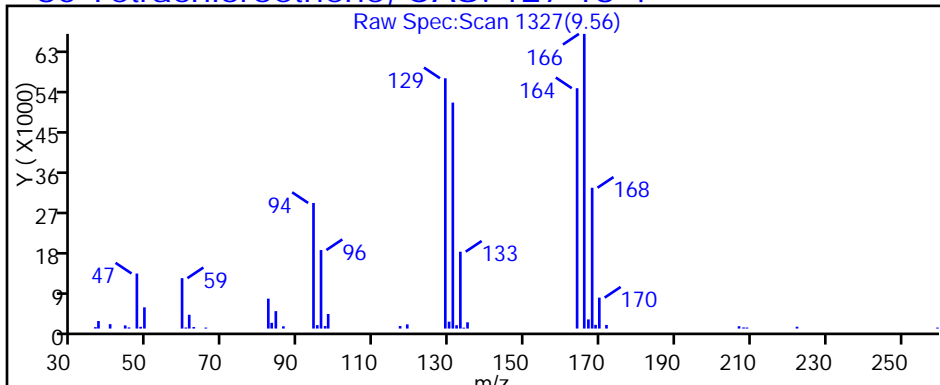
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-64D-0/1-0 Lab Sample ID: 180-69061-22  
 Matrix: Water Lab File ID: 50816D28.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:12  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/17/2017 11:07  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220320 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U H	1.0	0.38
75-01-4	Vinyl chloride	1.0	U H	1.0	0.17
74-83-9	Bromomethane	1.0	U H	1.0	0.59
75-00-3	Chloroethane	1.0	U H	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U H	1.0	0.32
67-64-1	Acetone	5.0	U H ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U H	1.0	0.53
75-09-2	Methylene Chloride	1.0	U H	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U H	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U H	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U H	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U H	1.0	0.30
74-97-5	Bromochloromethane	1.0	U H	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U H ^c	5.0	2.6
67-66-3	Chloroform	0.27	J H	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U H	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U H	1.0	0.56
71-43-2	Benzene	1.0	U H	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U H	1.0	0.24
79-01-6	Trichloroethene	3.9	H	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U H	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U H	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U H	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U H ^c	5.0	2.2
108-88-3	Toluene	1.0	U H	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U H	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U H	1.0	0.31
127-18-4	Tetrachloroethene	330	E H	1.0	0.24
591-78-6	2-Hexanone	5.0	U H ^c	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U H	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U H	1.0	0.51
108-90-7	Chlorobenzene	1.0	U H	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U H	1.0	0.49

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-64D-0/1-0 Lab Sample ID: 180-69061-22  
 Matrix: Water Lab File ID: 50816D28.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:12  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/17/2017 11:07  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220320 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	1.0	U H	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U H	2.0	0.27
100-42-5	Styrene	1.0	U H	1.0	0.22
75-25-2	Bromoform	1.0	U H	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U H	1.0	0.37
107-13-1	Acrylonitrile	20	U H	20	3.3
123-91-1	1,4-Dioxane	200	U H	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		65-121
2037-26-5	Toluene-d8 (Surr)	91		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D28.D  
 Lims ID: 180-69061-A-22  
 Client ID: HD-MW-64D-0/1-0  
 Sample Type: Client  
 Inject. Date: 17-Aug-2017 11:07:30 ALS Bottle#: 28 Worklist Smp#: 28  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-028  
 Misc. Info.: 180-69061-A-22  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:41 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf Date: 17-Aug-2017 22:04:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.341	0.014	0	308138	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.334	0.002	99	621602	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.430	-0.003	85	158401	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.767	0.003	96	221708	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.615	0.003	93	153566	51.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.986	-0.003	0	195016	53.5	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.975	0.004	93	576543	45.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.609	0.004	87	224733	49.4	
12 Chloromethane	50		1.821				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.326				ND	
16 Chloroethane	64		2.460				ND	
22 1,1-Dichloroethene	96		3.415				ND	
24 Acetone	43	3.522	3.524	-0.002	89	13229	8.14	
26 Carbon disulfide	76		3.701				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.631				ND	
35 Methyl tert-butyl ether	73		4.656				ND	
37 1,1-Dichloroethane	63		5.264				ND	
45 cis-1,2-Dichloroethene	96		6.006				ND	
46 2-Butanone (MEK)	43		6.018				ND	
49 Chlorobromomethane	128		6.292				ND	
52 Chloroform	83	6.442	6.432	0.010	86	8094	1.34	
53 1,1,1-Trichloroethane	97		6.590				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.065				ND	
64 Trichloroethene	130	7.719	7.722	-0.003	97	74116	19.5	
67 1,2-Dichloropropane	63		7.989				ND	
70 1,4-Dioxane	88		8.081				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.275				ND	
74 cis-1,3-Dichloropropene	75		8.719				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91	9.040	9.048	-0.008	41	2036	0.1289	
77 trans-1,3-Dichloropropene	75		9.291				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.557	9.553	0.004	83	4956573	1645.5	E
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.453				ND	
89 1,1,1,2-Tetrachloroethane	131	10.548	10.551	-0.003	5	1049	0.3208	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.684				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.086				ND	
94 Bromoform	173		11.268				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D28.D

Injection Date: 17-Aug-2017 11:07:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-A-22

Lab Sample ID: 180-69061-22

Worklist Smp#: 28

Client ID: HD-MW-64D-0/1-0

Purge Vol: 5.000 mL

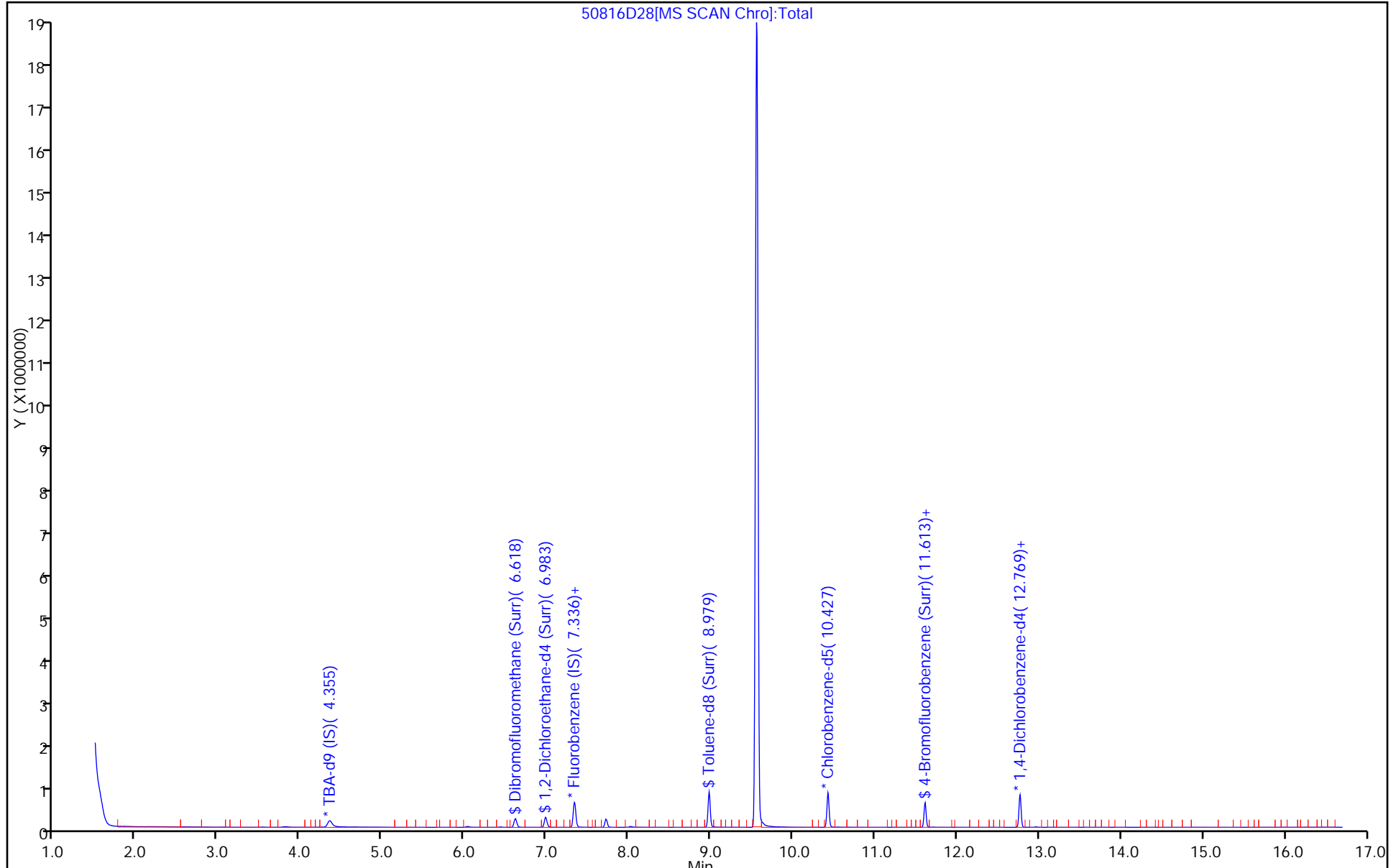
Dil. Factor: 1.0000

ALS Bottle#: 28

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D28.D  
 Lims ID: 180-69061-A-22  
 Client ID: HD-MW-64D-0/1-0  
 Sample Type: Client  
 Inject. Date: 17-Aug-2017 11:07:30 ALS Bottle#: 28 Worklist Smp#: 28  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-028  
 Misc. Info.: 180-69061-A-22  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:41 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf Date: 17-Aug-2017 22:04:49

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.3	102.69
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.5	106.92
\$ 7 Toluene-d8 (Surr)	50.0	45.7	91.47
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.4	98.72



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D28.D

Injection Date: 17-Aug-2017 11:07:30

Instrument ID: CHHP5

Lims ID: 180-69061-A-22

Lab Sample ID: 180-69061-22

Client ID: HD-MW-64D-0/1-0

Operator ID: 034635

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

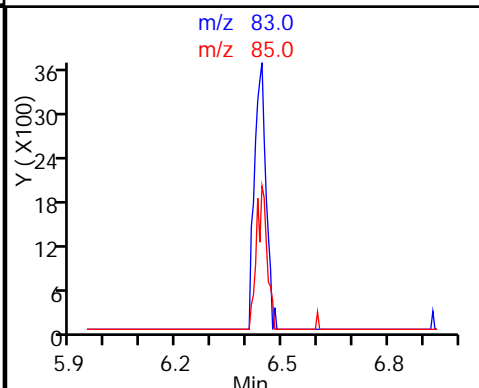
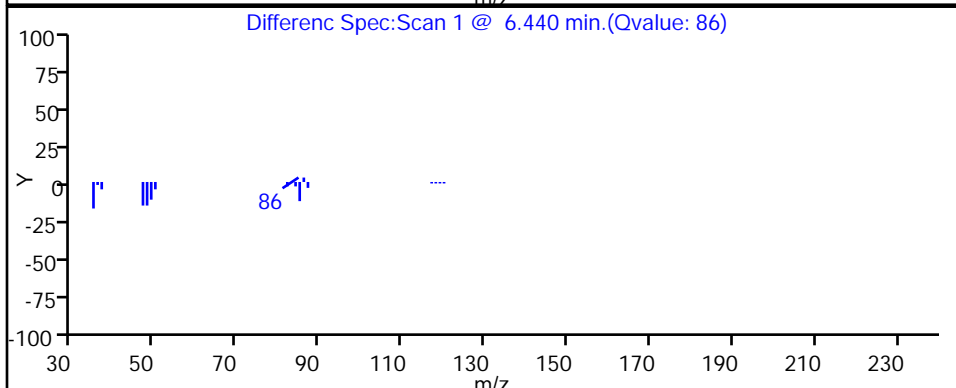
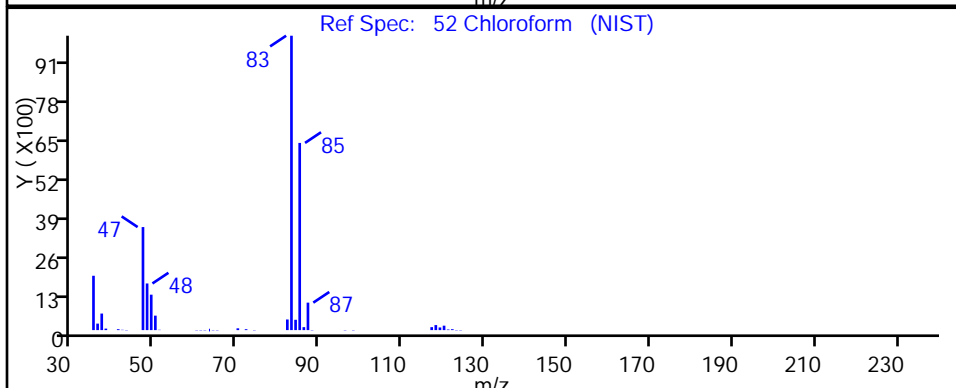
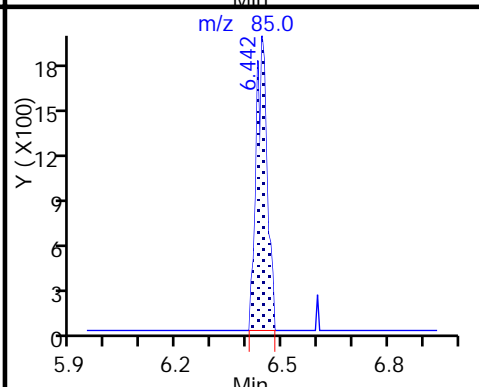
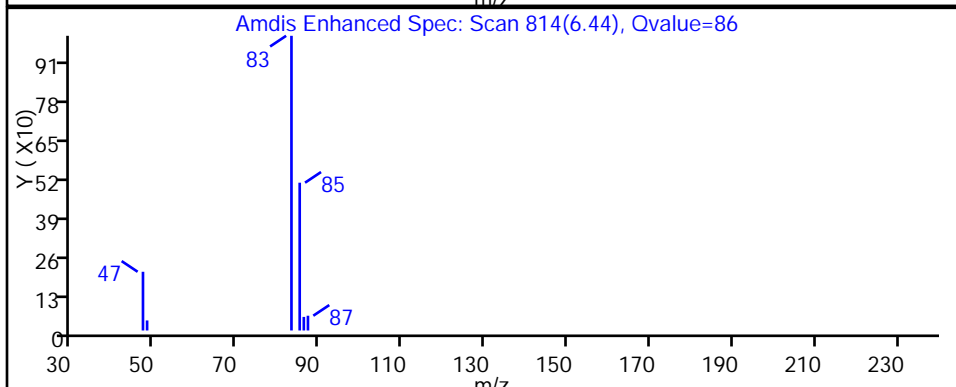
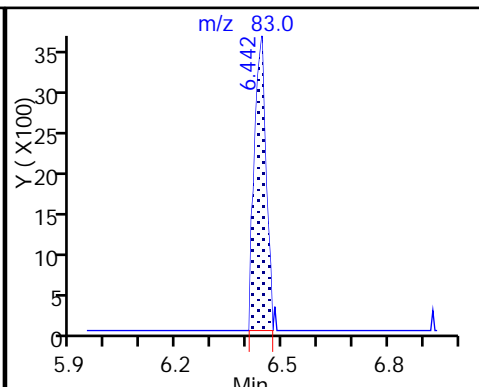
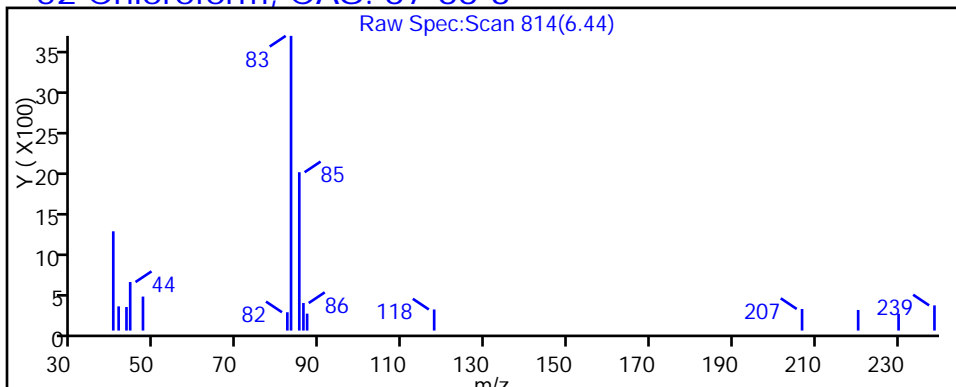
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D28.D

Injection Date: 17-Aug-2017 11:07:30

Instrument ID: CHHP5

Lims ID: 180-69061-A-22

Lab Sample ID: 180-69061-22

Client ID: HD-MW-64D-0/1-0

Operator ID: 034635

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

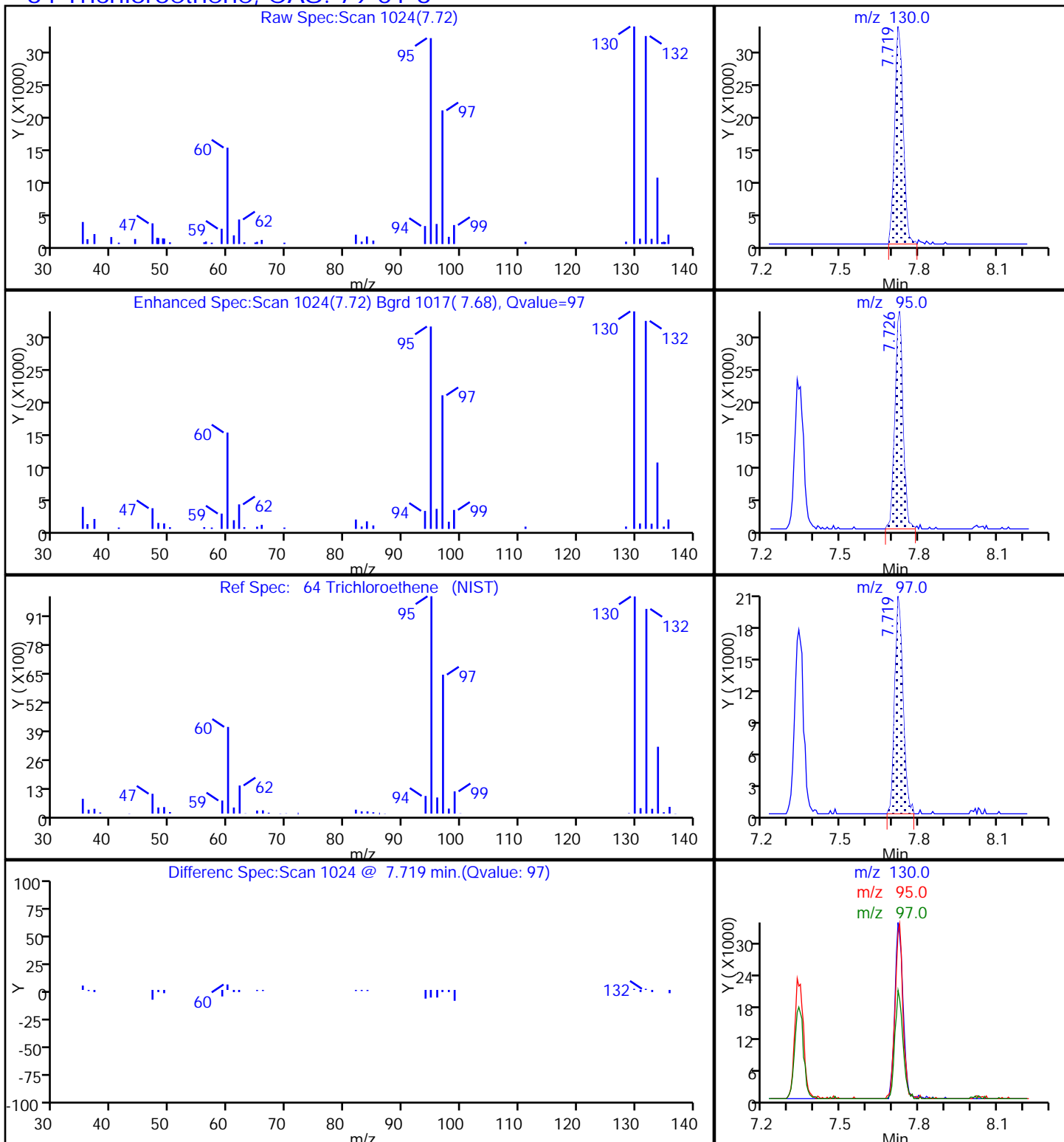
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

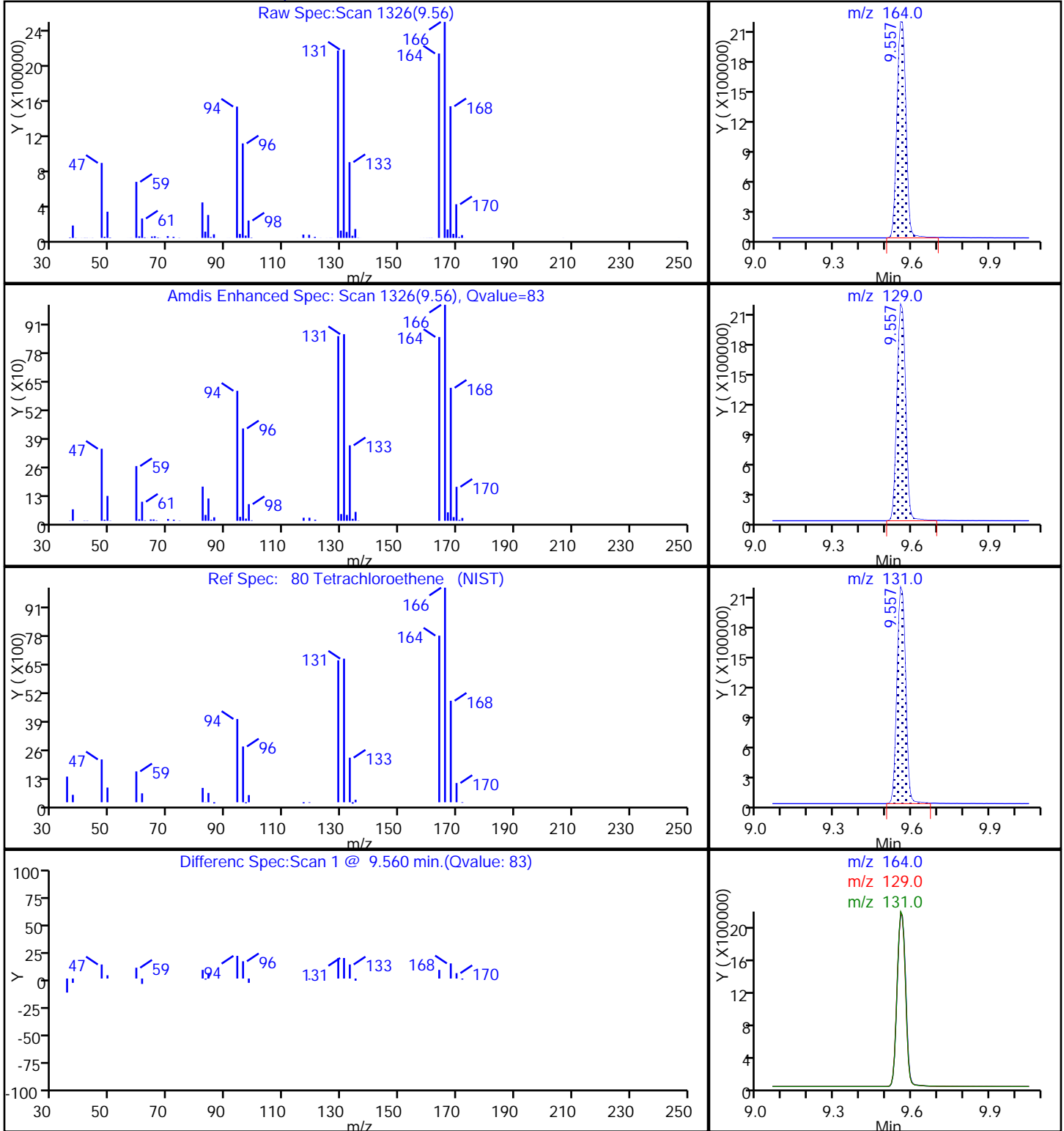
64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D28.D  
Injection Date: 17-Aug-2017 11:07:30 Instrument ID: CHHP5  
Lims ID: 180-69061-A-22 Lab Sample ID: 180-69061-22  
Client ID: HD-MW-64D-0/1-0  
Operator ID: 034635 ALS Bottle#: 28 Worklist Smp#: 28  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-64D-0/1-0 DL Lab Sample ID: 180-69061-22 DL  
 Matrix: Water Lab File ID: 50810D18.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:12  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 07:16  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 10  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	3.8
75-01-4	Vinyl chloride	10	U	10	1.7
74-83-9	Bromomethane	10	U	10	5.9
75-00-3	Chloroethane	10	U	10	5.8
75-35-4	1,1-Dichloroethene	10	U	10	3.2
67-64-1	Acetone	50	U ^c	50	31
75-15-0	Carbon disulfide	10	U ^c	10	5.3
75-09-2	Methylene Chloride	10	U	10	9.4
156-60-5	trans-1,2-Dichloroethene	10	U	10	2.0
1634-04-4	Methyl tert-butyl ether	10	U	10	2.0
75-34-3	1,1-Dichloroethane	10	U	10	3.4
156-59-2	cis-1,2-Dichloroethene	10	U	10	3.0
74-97-5	Bromochloromethane	10	U	10	3.6
78-93-3	2-Butanone (MEK)	50	U	50	26
67-66-3	Chloroform	10	U	10	2.7
71-55-6	1,1,1-Trichloroethane	10	U	10	2.7
56-23-5	Carbon tetrachloride	10	U	10	5.6
71-43-2	Benzene	10	U	10	1.8
107-06-2	1,2-Dichloroethane	10	U	10	2.4
79-01-6	Trichloroethene	3.4	J	10	2.0
78-87-5	1,2-Dichloropropane	10	U	10	3.5
75-27-4	Bromodichloromethane	10	U	10	5.7
10061-01-5	cis-1,3-Dichloropropene	10	U	10	3.2
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	22
108-88-3	Toluene	10	U	10	1.6
10061-02-6	trans-1,3-Dichloropropene	10	U	10	2.2
79-00-5	1,1,2-Trichloroethane	10	U	10	3.1
127-18-4	Tetrachloroethene	300		10	2.4
591-78-6	2-Hexanone	50	U	50	20
124-48-1	Dibromochloromethane	10	U	10	4.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	5.1
108-90-7	Chlorobenzene	10	U	10	1.5
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	4.9
100-41-4	Ethylbenzene	10	U	10	2.5
1330-20-7	Xylenes, Total	20	U	20	2.7
100-42-5	Styrene	10	U	10	2.2

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-64D-0/1-0 DL Lab Sample ID: 180-69061-22 DL  
 Matrix: Water Lab File ID: 50810D18.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:12  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 07:16  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 10  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	<i>Bromoform</i>	10	U	10	7.6
79-34-5	<i>1,1,2,2-Tetrachloroethane</i>	10	U	10	3.7
107-13-1	<i>Acrylonitrile</i>	200	U	200	33
123-91-1	<i>1,4-Dioxane</i>	2000	U	2000	160

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D18.D  
 Lims ID: 180-69061-C-22  
 Client ID: HD-MW-64D-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 07:16:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-0017967-018  
 Misc. Info.: 180-69061-C-22  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:29:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.376	-0.018	0	263085	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.333	0.006	98	497352	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.423	0.007	86	140897	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.771	0.001	96	218487	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.615	0.006	92	121314	50.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	145565	49.9	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.975	0.007	93	484727	43.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.609	0.001	87	208160	51.4	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43		3.524				ND	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73		4.650				ND	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83		6.432				ND	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.729	7.722	0.007	94	5249	1.72	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.560	9.559	0.001	96	408355	152.4	
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D18.D

Injection Date: 10-Aug-2017 07:16:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-22

Lab Sample ID: 180-69061-22

Worklist Smp#: 18

Client ID: HD-MW-64D-0/1-0

Purge Vol: 5.000 mL

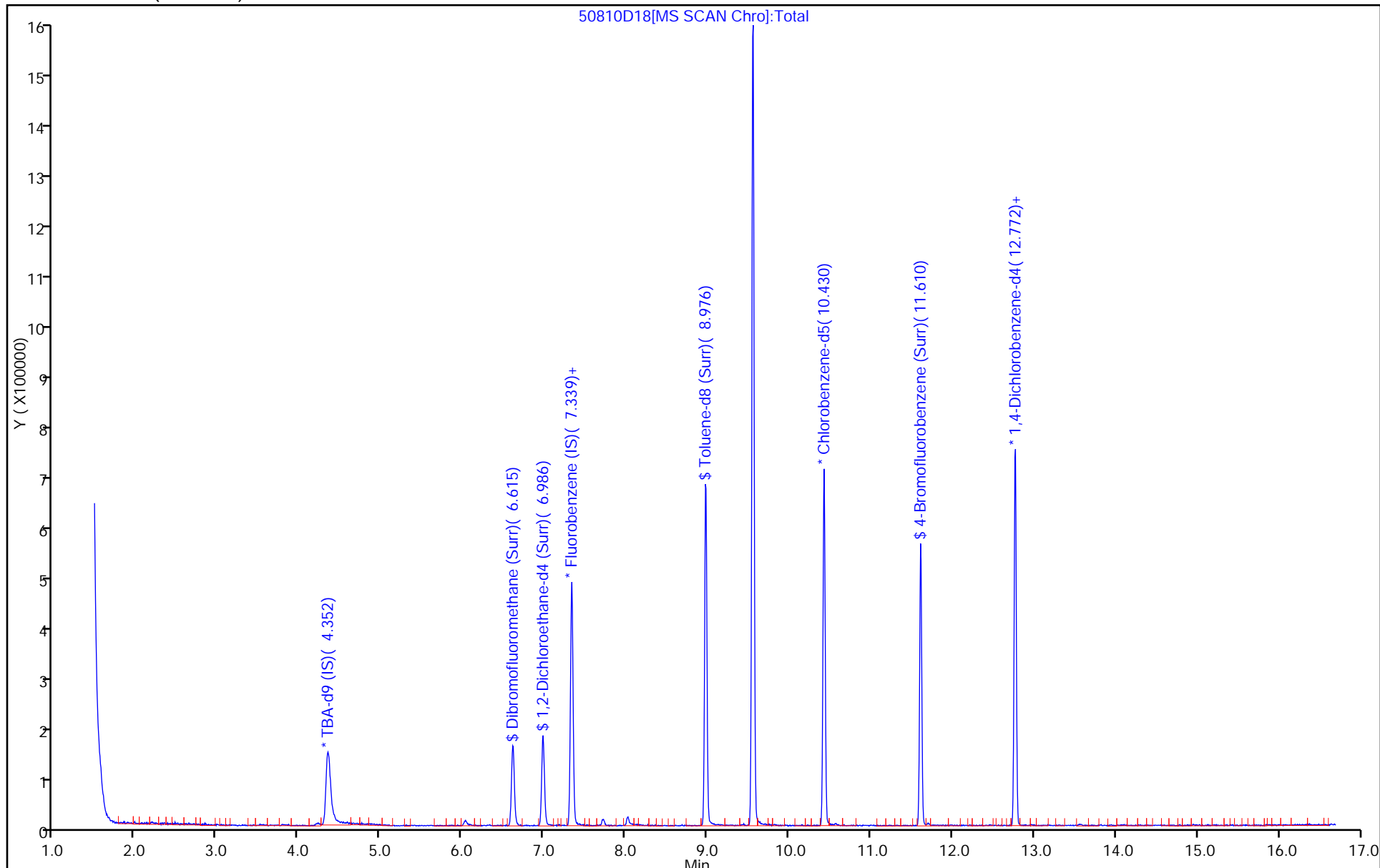
Dil. Factor: 10.0000

ALS Bottle#: 18

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D18.D  
 Lims ID: 180-69061-C-22  
 Client ID: HD-MW-64D-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 07:16:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-0017967-018  
 Misc. Info.: 180-69061-C-22  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:29:30

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.7	101.39
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.9	99.75
\$ 7 Toluene-d8 (Surr)	50.0	43.2	86.45
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.4	102.80

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D18.D

Injection Date: 10-Aug-2017 07:16:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-22

Lab Sample ID: 180-69061-22

Client ID: HD-MW-64D-0/1-0

Operator ID: 034635

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

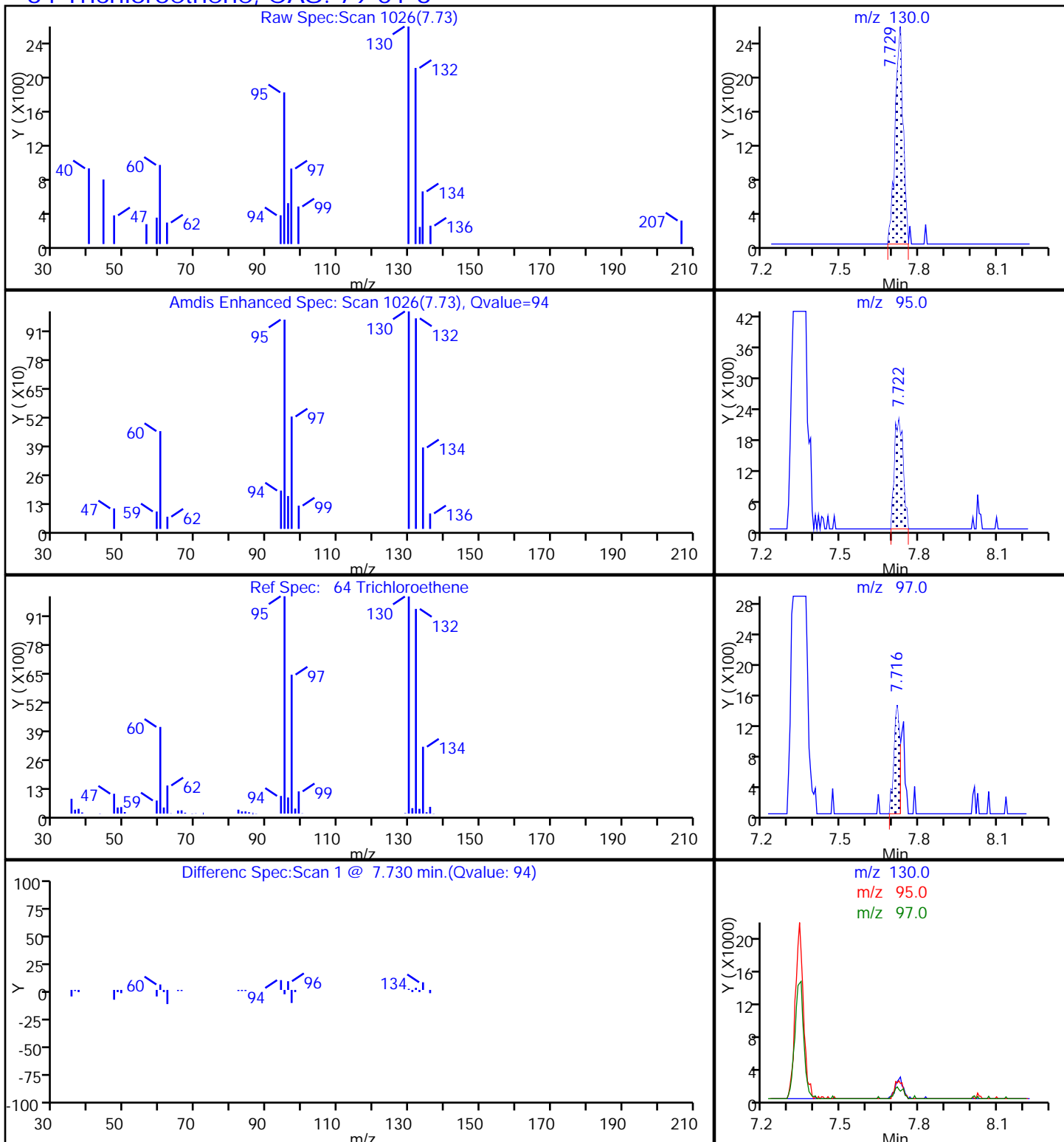
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D18.D

Injection Date: 10-Aug-2017 07:16:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-22

Lab Sample ID: 180-69061-22

Client ID: HD-MW-64D-0/1-0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

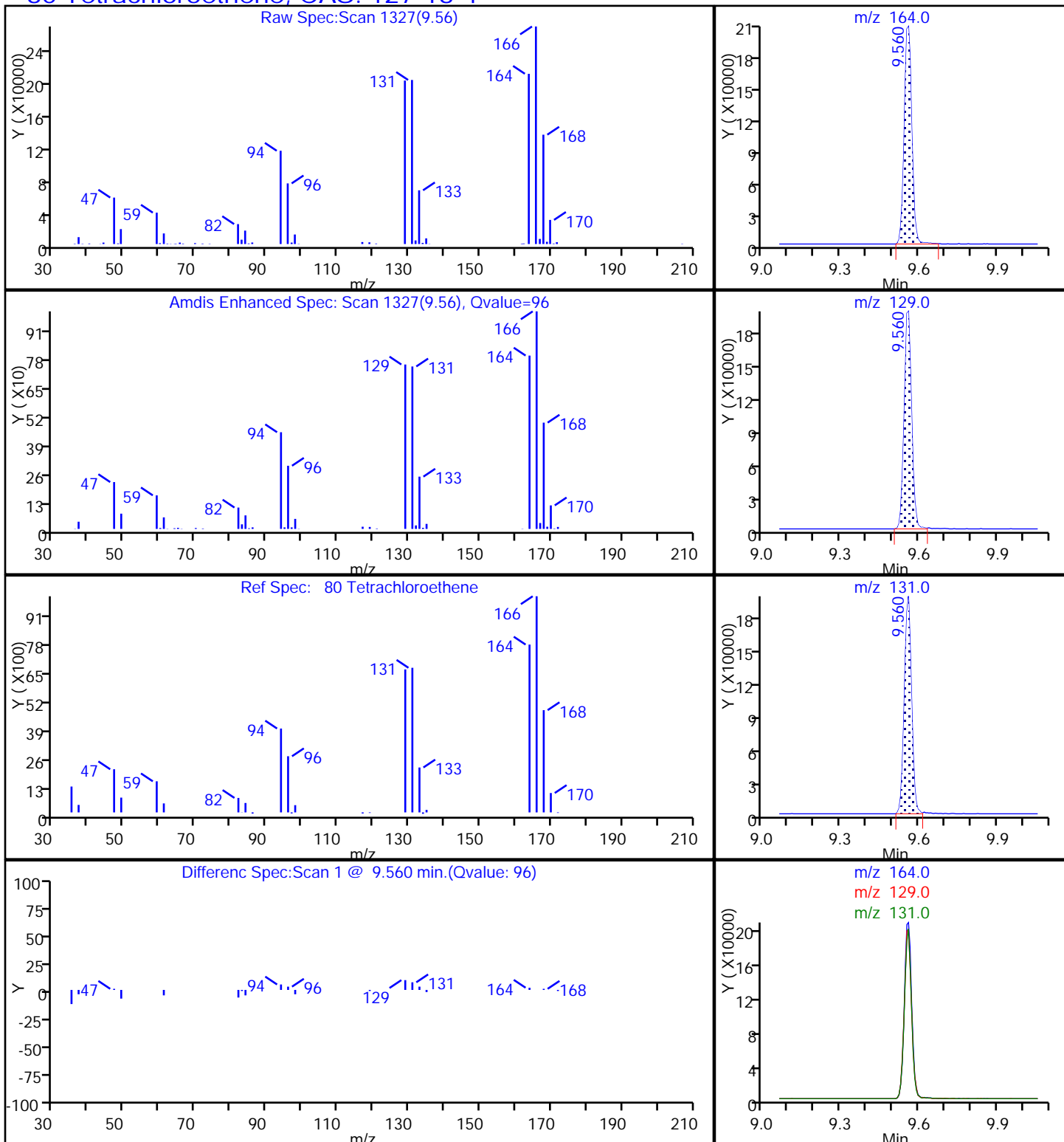
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 Lab Sample ID: 180-69061-23  
 Matrix: Water Lab File ID: 50810D21.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 08:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	4.3		1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	200	E	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 Lab Sample ID: 180-69061-23  
 Matrix: Water Lab File ID: 50810D21.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 08:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		65-121
2037-26-5	Toluene-d8 (Surr)	82		73-120
460-00-4	4-Bromofluorobenzene (Surr)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D21.D  
 Lims ID: 180-69061-B-23  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 08:28:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-021  
 Misc. Info.: 180-69061-B-23  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:31:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.376	-0.021	0	276625	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.333	0.003	98	487764	50.0	
* 3 Chlorobenzene-d5	119	10.426	10.423	0.003	85	144052	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.771	-0.003	96	222931	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.615	0.003	94	121867	51.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.989	6.986	0.003	0	148639	51.9	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.975	0.003	93	470049	41.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.609	0.003	85	211739	51.1	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.540	3.524	0.016	66	7299	5.72	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73	4.659	4.650	0.009	36	5343	0.7324	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96	6.009	6.000	0.009	41	4468	1.44	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.441	6.432	0.009	92	5991	1.27	
53 1,1,1-Trichloroethane	97		6.591				ND	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78	6.995	6.992	0.003	42	376	0.0317	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.725	7.722	0.003	98	63578	21.3	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.556	9.559	-0.003	91	2784992	1016.7	E
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D21.D

Injection Date: 10-Aug-2017 08:28:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-23

Lab Sample ID: 180-69061-23

Worklist Smp#: 21

Client ID: HD-MW-161-0/1-0

Purge Vol: 5.000 mL

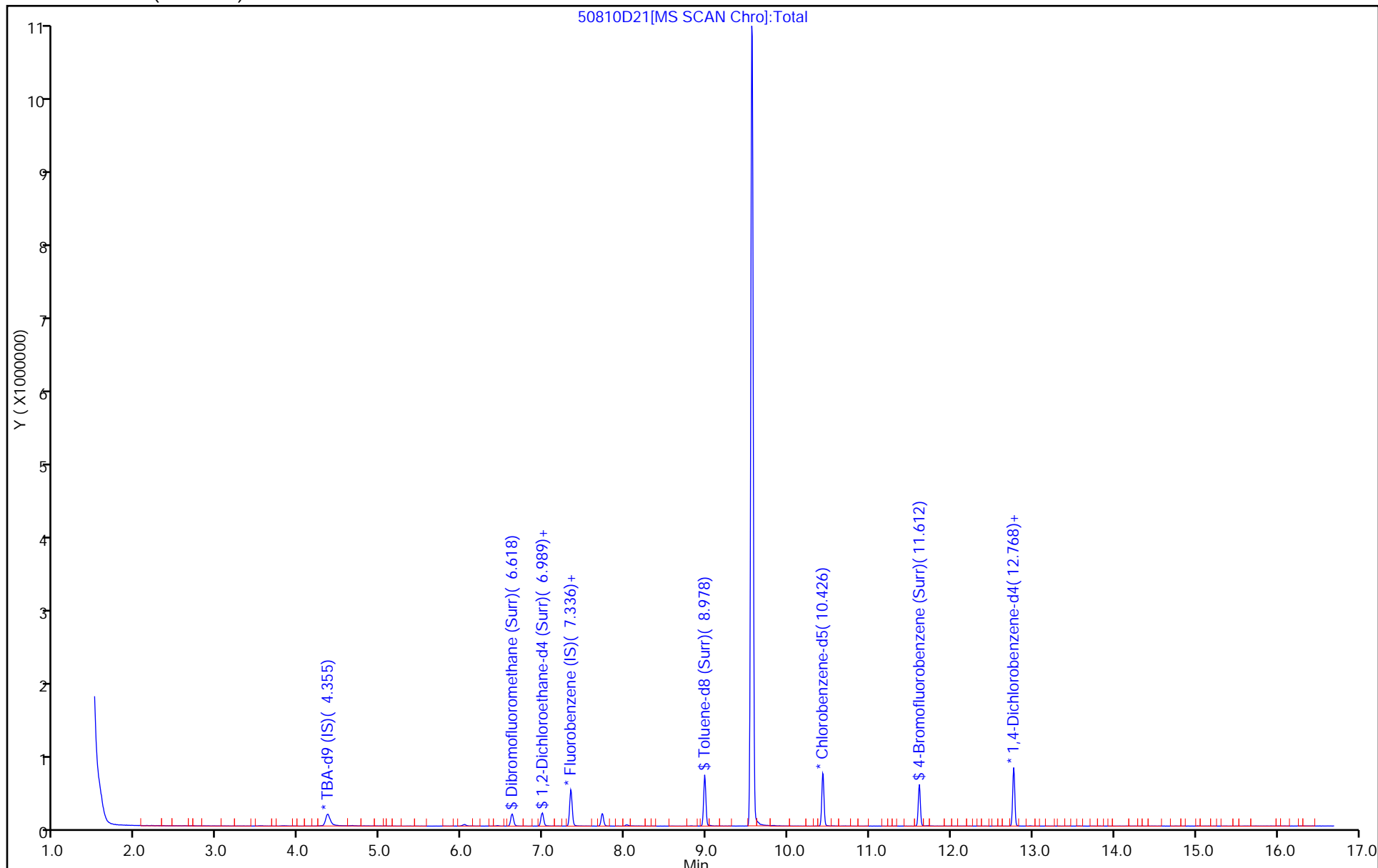
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D21.D  
 Lims ID: 180-69061-B-23  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 08:28:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-021  
 Misc. Info.: 180-69061-B-23  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:31:25

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.9	103.85
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.9	103.86
\$ 7 Toluene-d8 (Surr)	50.0	41.0	82.00
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.1	102.27

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D21.D

Injection Date: 10-Aug-2017 08:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-23

Lab Sample ID: 180-69061-23

Client ID: HD-MW-161-0/1-0

Operator ID: 034635

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

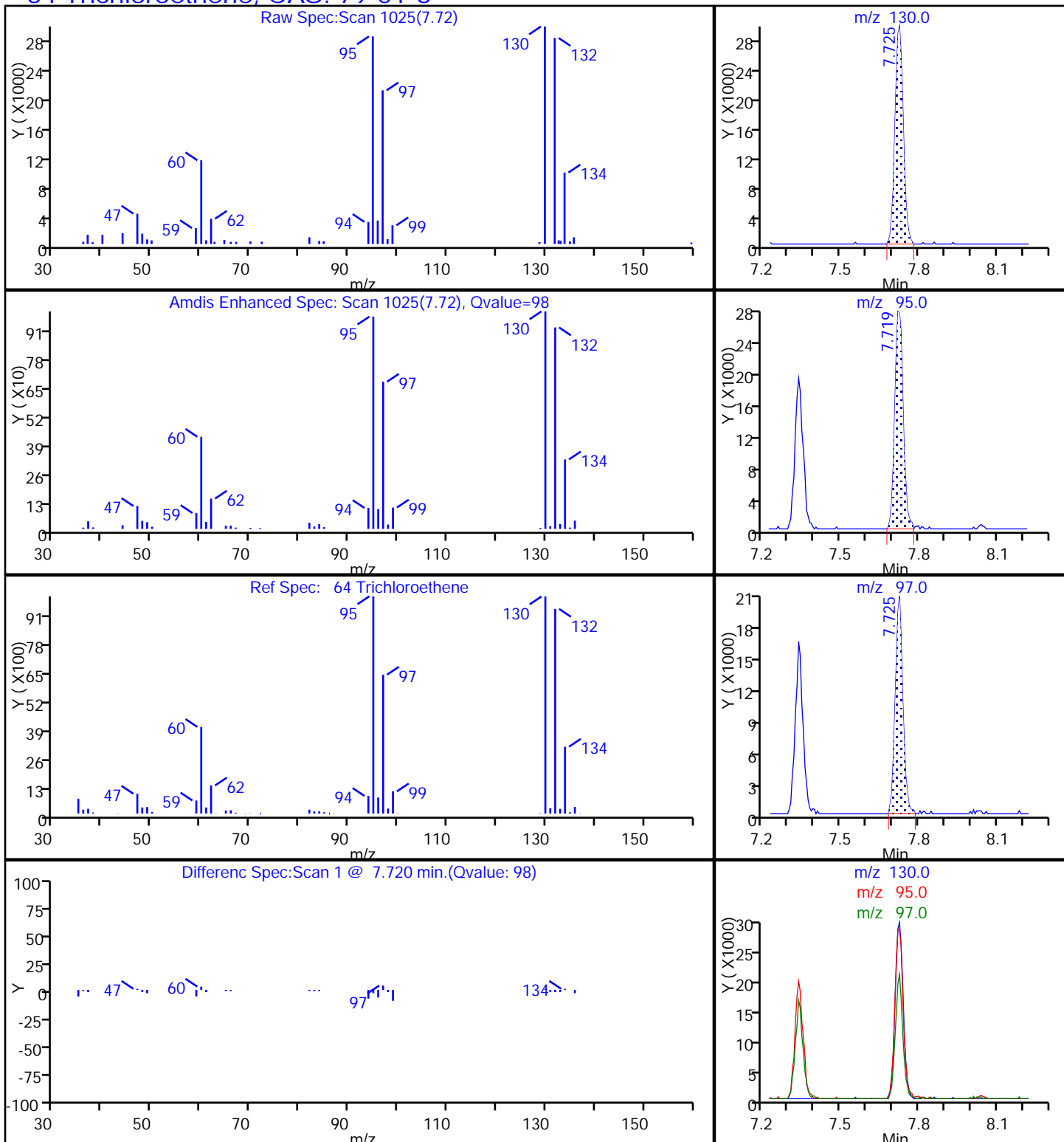
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D21.D

Injection Date: 10-Aug-2017 08:28:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-23

Lab Sample ID: 180-69061-23

Client ID: HD-MW-161-0/1-0

Operator ID: 034635

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

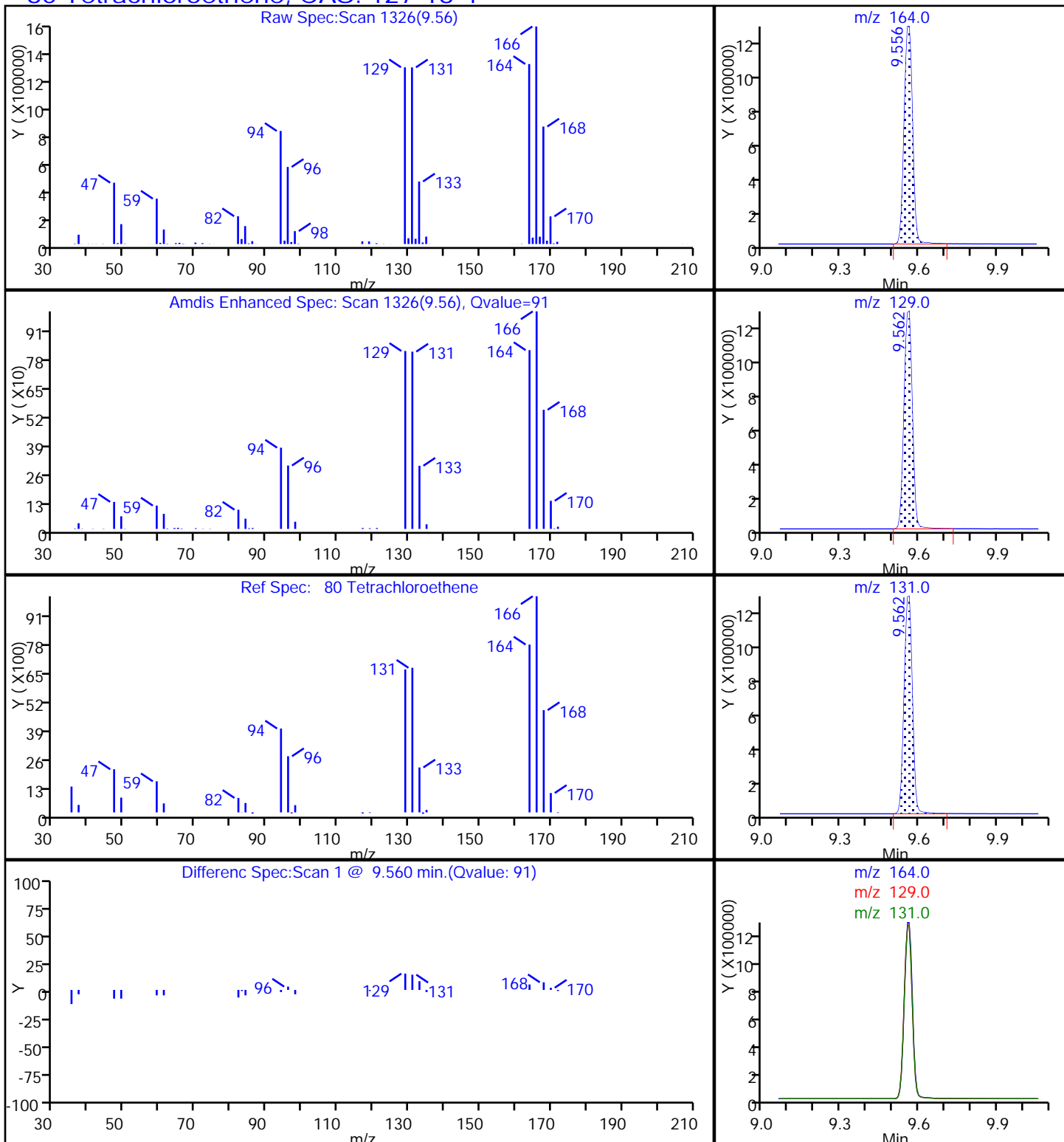
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 DL Lab Sample ID: 180-69061-23 DL  
 Matrix: Water Lab File ID: 50811D20.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 09:21  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 20  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	20	U	20	7.6
75-01-4	Vinyl chloride	20	U	20	3.4
74-83-9	Bromomethane	20	U ^c	20	12
75-00-3	Chloroethane	20	U	20	12
75-35-4	1,1-Dichloroethene	20	U	20	6.4
67-64-1	Acetone	100	U ^c	100	63
75-15-0	Carbon disulfide	20	U	20	11
75-09-2	Methylene Chloride	20	U	20	19
156-60-5	trans-1,2-Dichloroethene	20	U	20	4.0
1634-04-4	Methyl tert-butyl ether	20	U	20	3.9
75-34-3	1,1-Dichloroethane	20	U	20	6.8
156-59-2	cis-1,2-Dichloroethene	20	U	20	6.1
74-97-5	Bromochloromethane	20	U	20	7.2
78-93-3	2-Butanone (MEK)	100	U	100	51
67-66-3	Chloroform	20	U	20	5.3
71-55-6	1,1,1-Trichloroethane	20	U	20	5.4
56-23-5	Carbon tetrachloride	20	U	20	11
71-43-2	Benzene	20	U	20	3.6
107-06-2	1,2-Dichloroethane	20	U	20	4.8
79-01-6	Trichloroethene	20	U	20	4.0
78-87-5	1,2-Dichloropropane	20	U	20	6.9
75-27-4	Bromodichloromethane	20	U	20	11
10061-01-5	cis-1,3-Dichloropropene	20	U	20	6.4
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U	100	44
108-88-3	Toluene	20	U	20	3.1
10061-02-6	trans-1,3-Dichloropropene	20	U	20	4.4
79-00-5	1,1,2-Trichloroethane	20	U	20	6.1
127-18-4	Tetrachloroethene	170		20	4.9
591-78-6	2-Hexanone	100	U	100	40
124-48-1	Dibromochloromethane	20	U	20	8.7
106-93-4	1,2-Dibromoethane (EDB)	20	U	20	10
108-90-7	Chlorobenzene	20	U	20	2.9
630-20-6	1,1,1,2-Tetrachloroethane	20	U	20	9.9
100-41-4	Ethylbenzene	20	U	20	5.0
1330-20-7	Xylenes, Total	40	U	40	5.4
100-42-5	Styrene	20	U	20	4.3

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-161-0/1-0 DL Lab Sample ID: 180-69061-23 DL  
 Matrix: Water Lab File ID: 50811D20.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 15:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 09:21  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 20  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	<i>Bromoform</i>	20	U	20	15
79-34-5	<i>1,1,2,2-Tetrachloroethane</i>	20	U	20	7.4
107-13-1	<i>Acrylonitrile</i>	400	U	400	67
123-91-1	<i>1,4-Dioxane</i>	4000	U	4000	310

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		65-121
2037-26-5	Toluene-d8 (Surr)	91		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D20.D  
 Lims ID: 180-69061-C-23  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 09:21:30 ALS Bottle#: 20 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 20.0000  
 Sample Info: 180-0017984-020  
 Misc. Info.: 180-69061-C-23  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf

Date: 14-Aug-2017 00:00:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.355	0.009	0	253780	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.336	0.003	99	557333	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.427	0.002	86	142494	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.769	0.002	96	210288	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.616	0.005	93	135437	50.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.987	-0.001	0	170346	52.1	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.976	0.005	93	514765	45.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.610	-0.001	86	204163	49.8	
12 Chloromethane	50		1.822				ND	
13 Vinyl chloride	62		1.968				ND	
15 Bromomethane	94		2.327				ND	
16 Chloroethane	64		2.449				ND	
22 1,1-Dichloroethene	96		3.410				ND	
24 Acetone	43	3.531	3.532	-0.001	68	6148	4.22	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.219				ND	
33 Acrylonitrile	53		4.602				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73		4.645				ND	
37 1,1-Dichloroethane	63		5.265				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43	6.031	6.020	0.011	46	3381	1.63	
49 Chlorobromomethane	128		6.293				ND	
52 Chloroform	83		6.433				ND	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.066				ND	
64 Trichloroethene	130	7.728	7.723	0.005	92	2198	0.6445	
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.559	9.560	-0.001	97	112250	41.4	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.461				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.686				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D20.D

Injection Date: 11-Aug-2017 09:21:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-23

Lab Sample ID: 180-69061-23

Worklist Smp#: 20

Client ID: HD-MW-161-0/1-0

Purge Vol: 5.000 mL

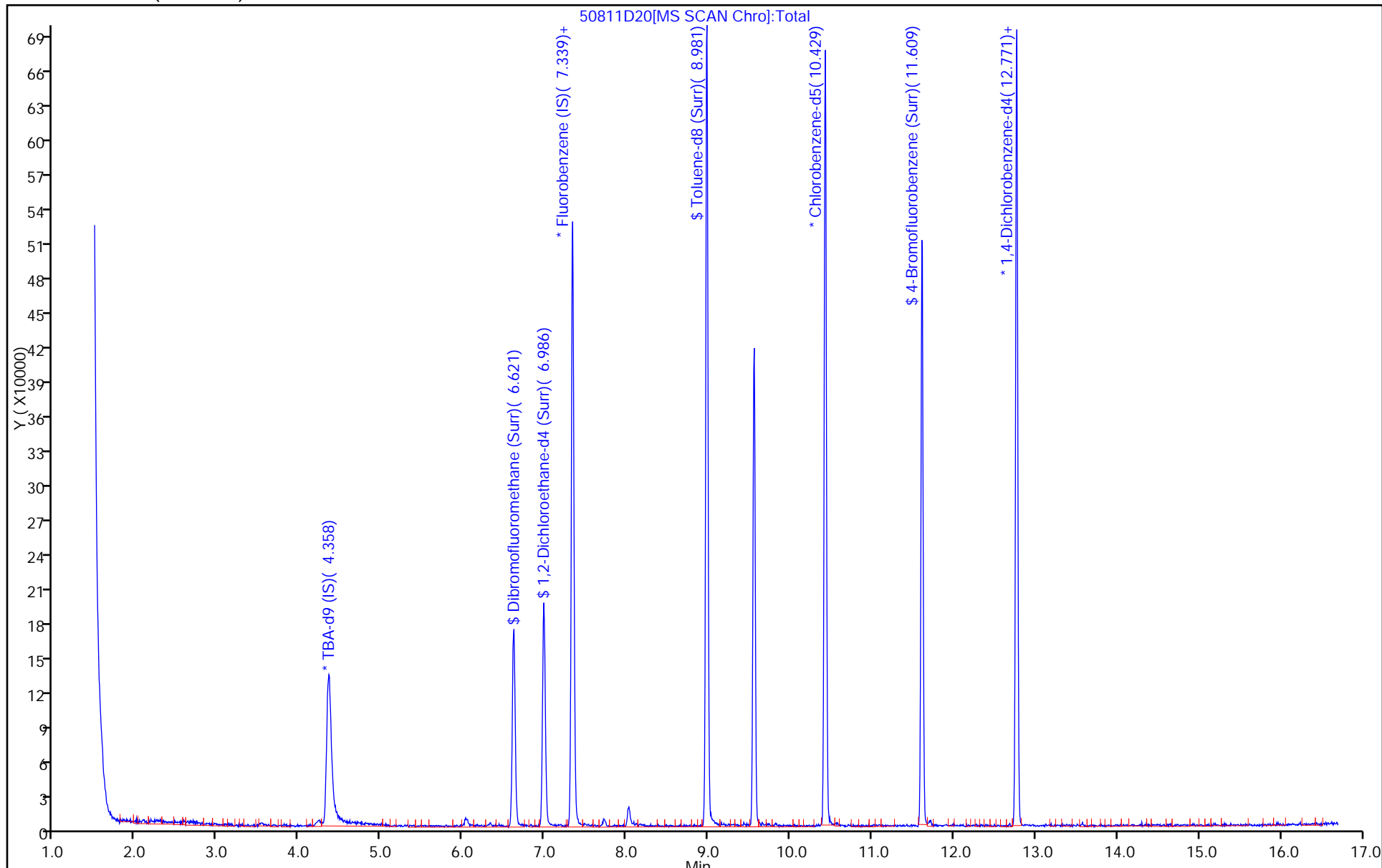
Dil. Factor: 20.0000

ALS Bottle#: 20

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D20.D  
 Lims ID: 180-69061-C-23  
 Client ID: HD-MW-161-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 09:21:30 ALS Bottle#: 20 Worklist Smp#: 20  
 Purge Vol: 5.000 mL Dil. Factor: 20.0000  
 Sample Info: 180-0017984-020  
 Misc. Info.: 180-69061-C-23  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 14-Aug-2017 00:00:47

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.5	101.01
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	52.1	104.17
\$ 7 Toluene-d8 (Surr)	50.0	45.4	90.78
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.8	99.69

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D20.D

Injection Date: 11-Aug-2017 09:21:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-23

Lab Sample ID: 180-69061-23

Client ID: HD-MW-161-0/1-0

Operator ID: 034635

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 5.000 mL

Dil. Factor: 20.0000

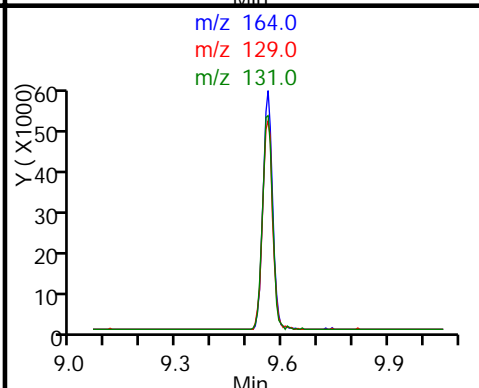
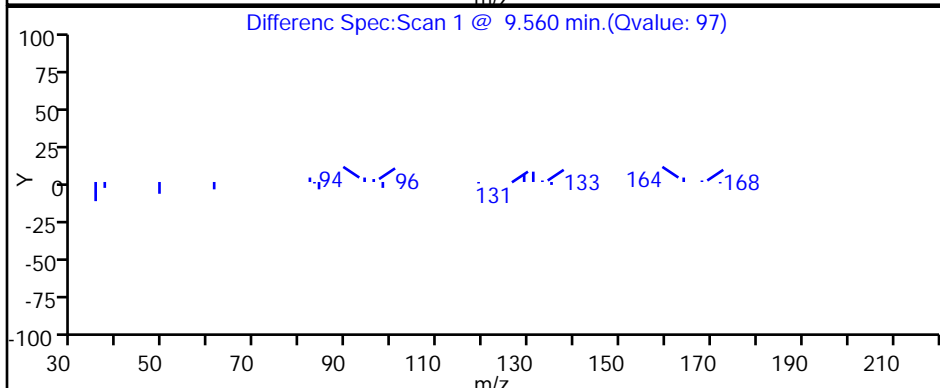
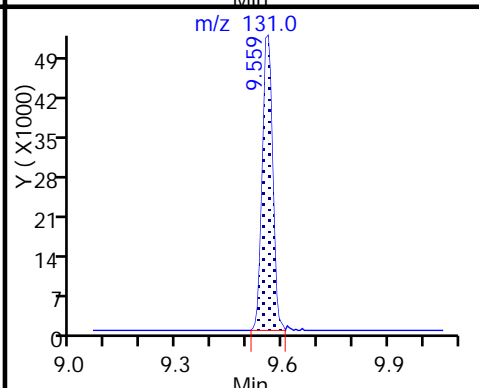
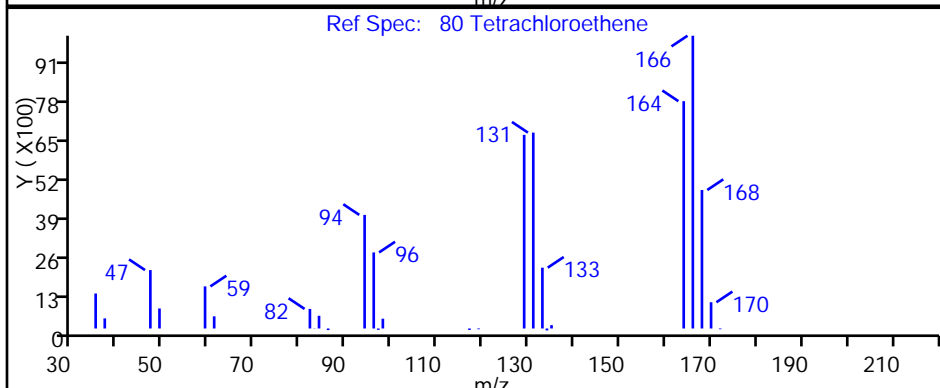
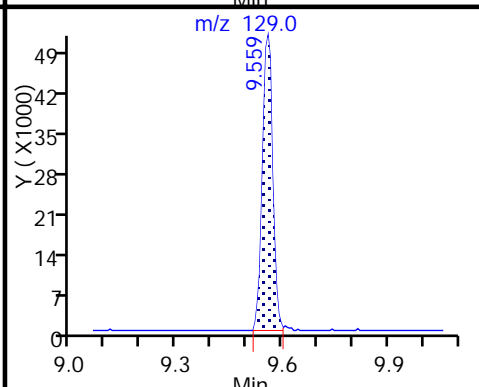
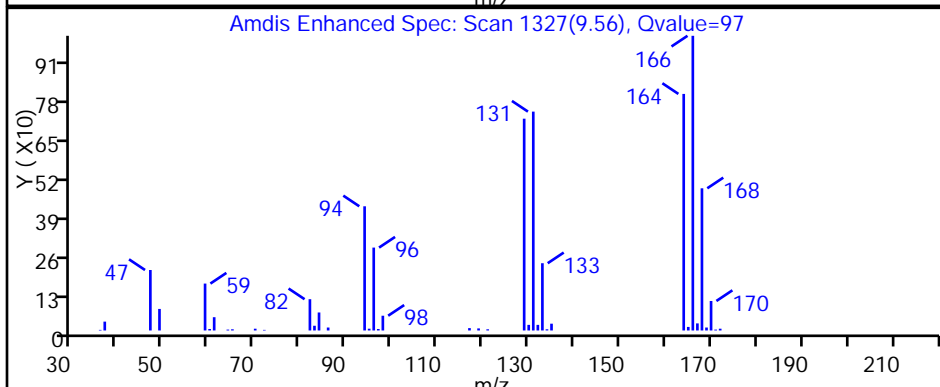
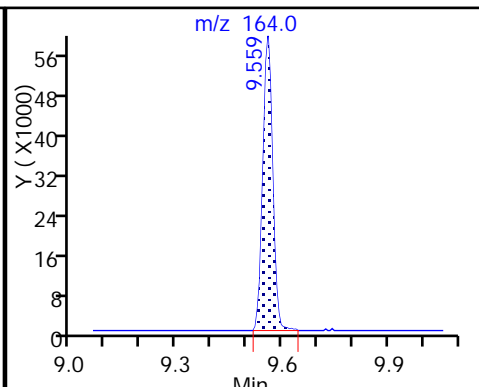
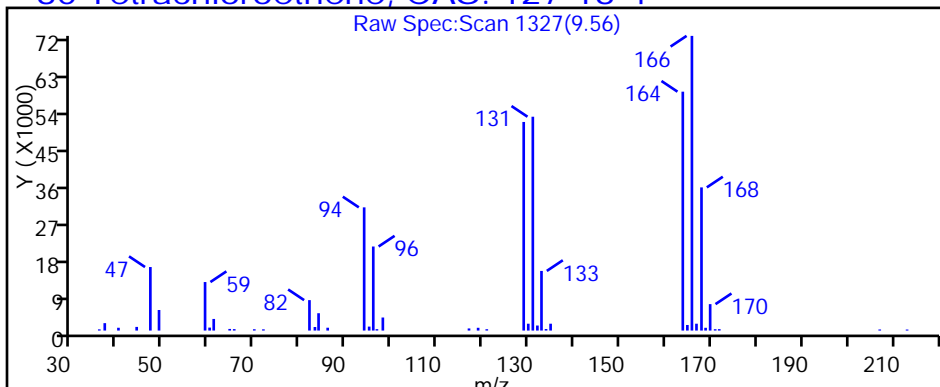
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-163-0/1-0 Lab Sample ID: 180-69061-24  
 Matrix: Water Lab File ID: 50811D18.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 13:29  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 08:33  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U ^c	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	0.62	J	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	0.83	J	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	37		1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-163-0/1-0 Lab Sample ID: 180-69061-24  
 Matrix: Water Lab File ID: 50811D18.D  
 Analysis Method: 8260C Date Collected: 08/01/2017 13:29  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 08:33  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		65-121
2037-26-5	Toluene-d8 (Surr)	88		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D18.D  
 Lims ID: 180-69061-B-24  
 Client ID: HD-MW-163-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 08:33:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-018  
 Misc. Info.: 180-69061-B-24  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf

Date: 13-Aug-2017 23:58:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.355	0.000	0	285832	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	98	601770	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.427	0.005	85	159314	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.769	-0.001	96	232857	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.616	0.002	93	143157	49.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.989	6.987	0.002	0	180022	51.0	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.976	0.002	93	560986	44.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.610	0.002	86	226353	49.4	
12 Chloromethane	50		1.822				ND	
13 Vinyl chloride	62		1.968				ND	
15 Bromomethane	94		2.327				ND	
16 Chloroethane	64		2.449				ND	
22 1,1-Dichloroethene	96		3.410				ND	
24 Acetone	43	3.539	3.532	0.007	73	6082	3.86	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.219				ND	
33 Acrylonitrile	53		4.602				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73		4.645				ND	
37 1,1-Dichloroethane	63		5.265				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43		6.020				ND	
49 Chlorobromomethane	128		6.293				ND	
52 Chloroform	83	6.441	6.433	0.008	92	17997	3.09	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.066				ND	
64 Trichloroethene	130	7.725	7.723	0.002	98	15308	4.16	
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.556	9.560	-0.004	97	554932	183.2	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112	10.462	10.461	0.001	37	1754	0.1696	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.686				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D18.D

Injection Date: 11-Aug-2017 08:33:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-24

Lab Sample ID: 180-69061-24

Worklist Smp#: 18

Client ID: HD-MW-163-0/1-0

Purge Vol: 5.000 mL

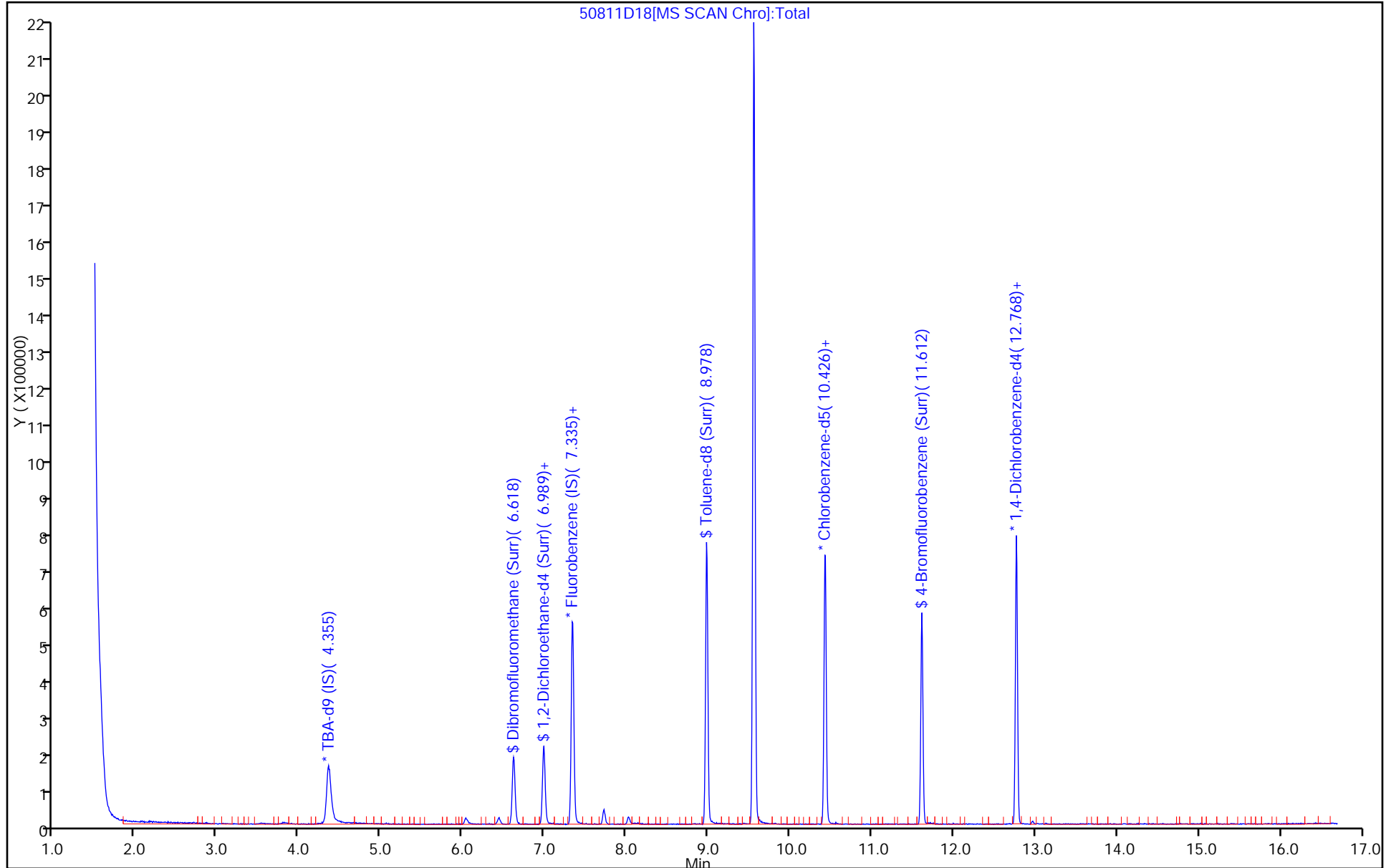
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D18.D  
 Lims ID: 180-69061-B-24  
 Client ID: HD-MW-163-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 08:33:30 ALS Bottle#: 18 Worklist Smp#: 18  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-018  
 Misc. Info.: 180-69061-B-24  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 13-Aug-2017 23:58:52

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.4	98.89
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.0	101.95
\$ 7 Toluene-d8 (Surr)	50.0	44.2	88.49
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.4	98.86



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D18.D

Injection Date: 11-Aug-2017 08:33:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-24

Lab Sample ID: 180-69061-24

Client ID: HD-MW-163-0/1-0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

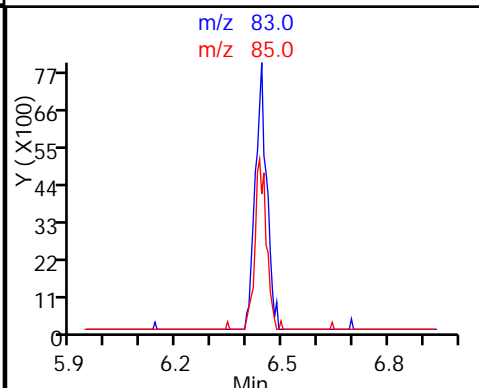
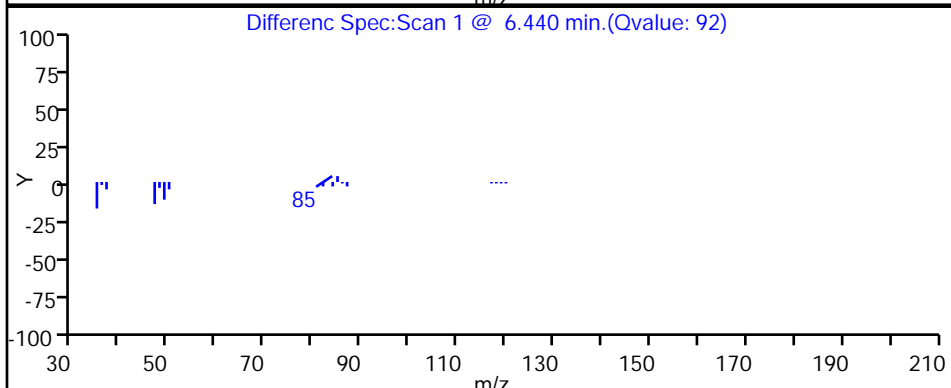
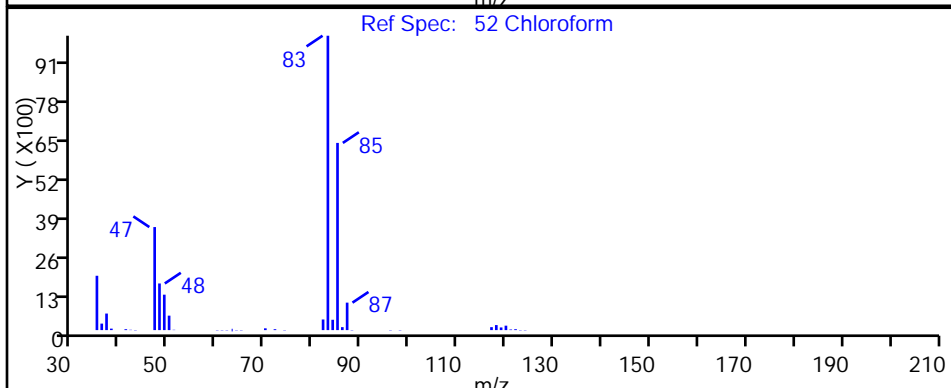
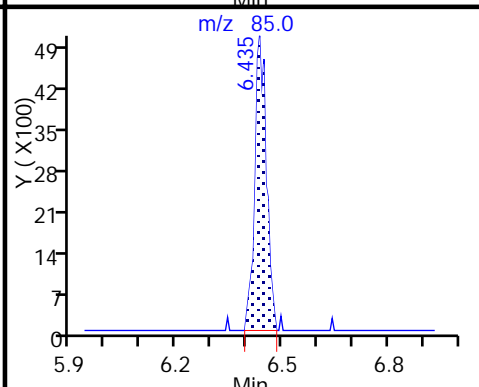
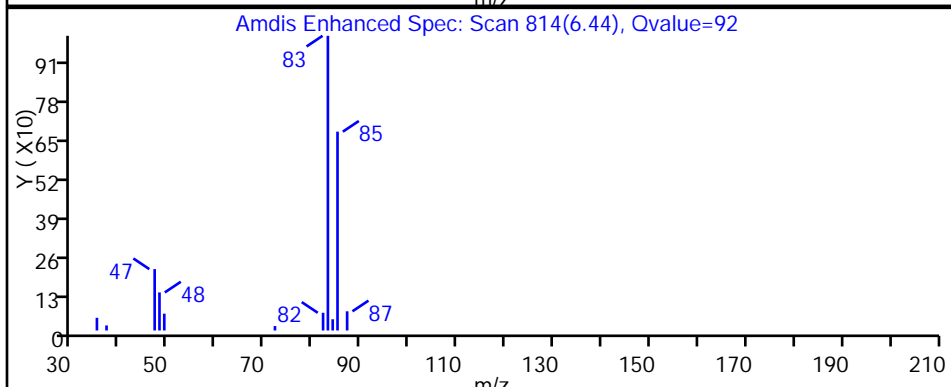
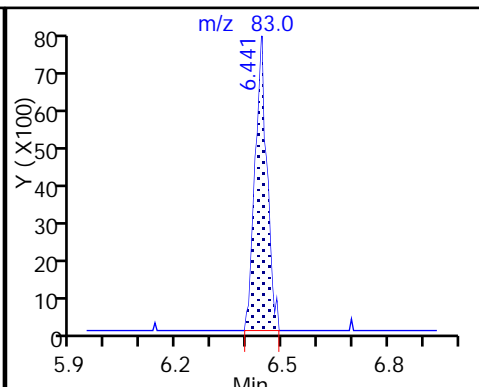
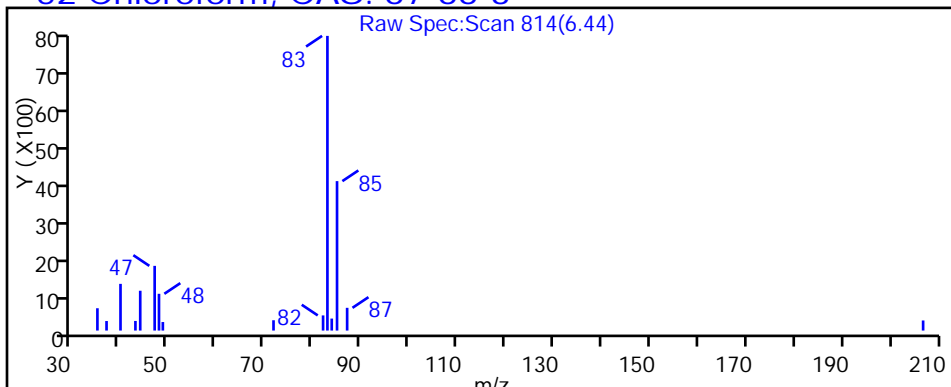
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D18.D

Injection Date: 11-Aug-2017 08:33:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-24

Lab Sample ID: 180-69061-24

Client ID: HD-MW-163-0/1-0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

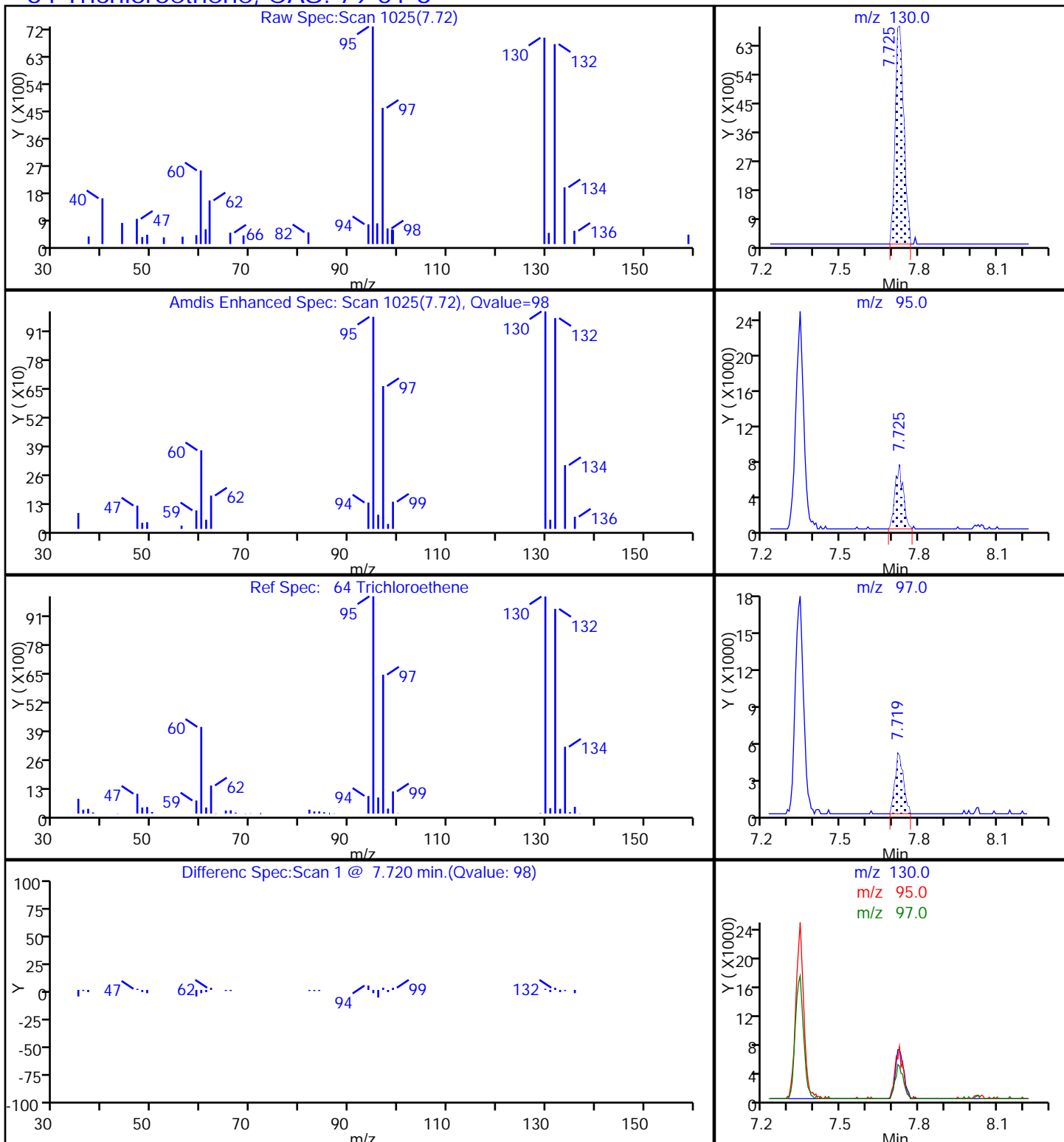
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

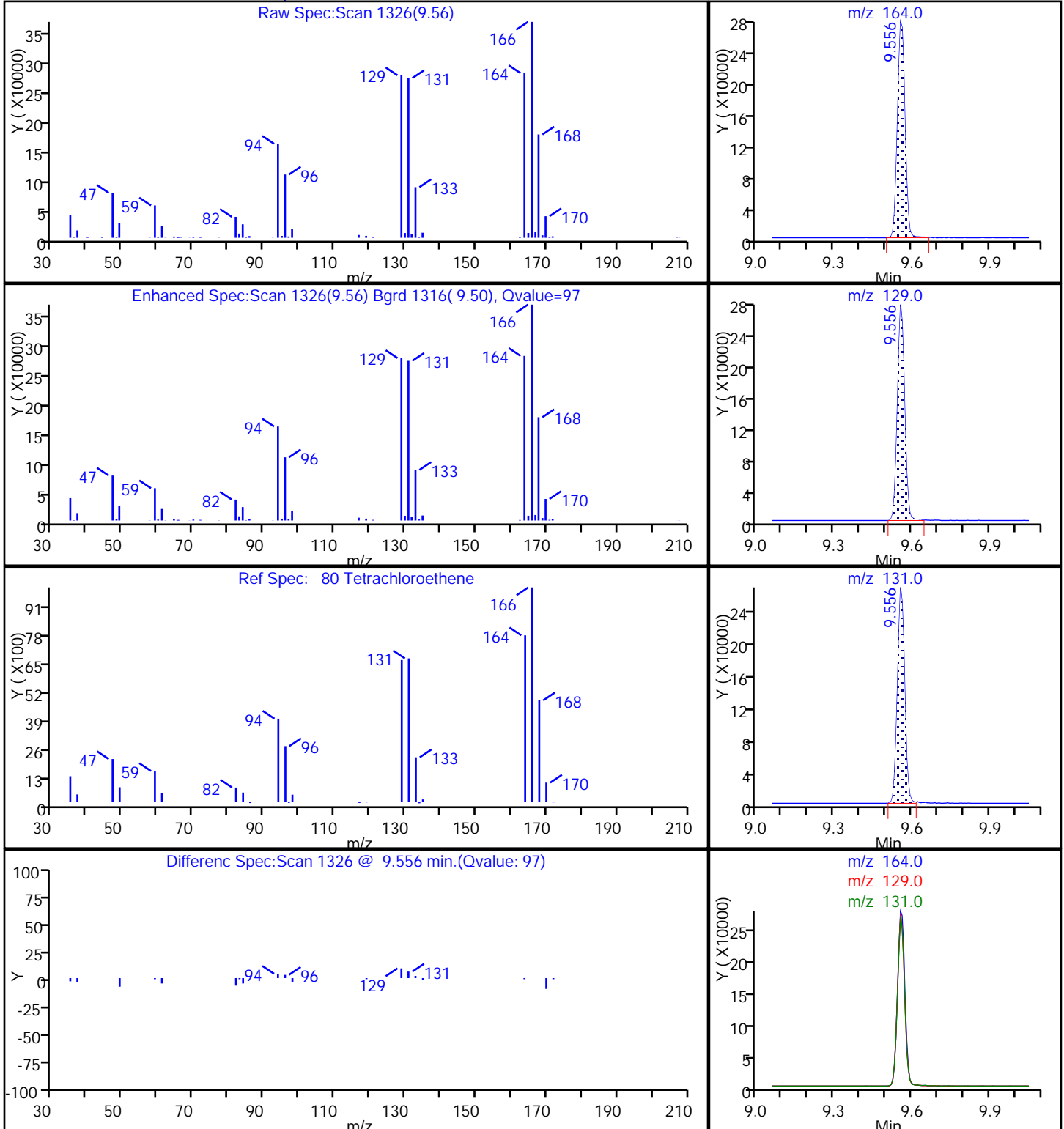
64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D18.D  
Injection Date: 11-Aug-2017 08:33:30 Instrument ID: CHHP5  
Lims ID: 180-69061-B-24 Lab Sample ID: 180-69061-24  
Client ID: HD-MW-163-0/1-0  
Operator ID: 034635 ALS Bottle#: 18 Worklist Smp#: 18  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-110-0/1-0 Lab Sample ID: 180-69061-25  
 Matrix: Water Lab File ID: 50809D06.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 04:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.9
75-01-4	Vinyl chloride	5.0	U	5.0	0.84
74-83-9	Bromomethane	5.0	U	5.0	2.9
75-00-3	Chloroethane	5.0	U	5.0	2.9
75-35-4	1,1-Dichloroethene	5.0	U	5.0	1.6
67-64-1	Acetone	25	U	25	16
75-15-0	Carbon disulfide	5.0	U ^c	5.0	2.6
75-09-2	Methylene Chloride	5.0	U	5.0	4.7
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	1.0
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.98
75-34-3	1,1-Dichloroethane	5.0	U	5.0	1.7
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	1.5
74-97-5	Bromochloromethane	5.0	U	5.0	1.8
78-93-3	2-Butanone (MEK)	25	U	25	13
67-66-3	Chloroform	5.0	U	5.0	1.3
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	2.8
71-43-2	Benzene	5.0	U	5.0	0.91
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.2
79-01-6	Trichloroethene	5.0	U	5.0	0.99
78-87-5	1,2-Dichloropropane	5.0	U	5.0	1.7
75-27-4	Bromodichloromethane	5.0	U	5.0	2.9
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	11
108-88-3	Toluene	5.0	U F1	5.0	0.78
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	1.1
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.5
127-18-4	Tetrachloroethene	44	F1	5.0	1.2
591-78-6	2-Hexanone	25	U	25	10
124-48-1	Dibromochloromethane	5.0	U	5.0	2.2
106-93-4	1,2-Dibromoethane (EDB)	5.0	U F1	5.0	2.6
108-90-7	Chlorobenzene	5.0	U F1	5.0	0.73
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.5
100-41-4	Ethylbenzene	5.0	U F1	5.0	1.3
1330-20-7	Xylenes, Total	10	U F1	10	1.4
100-42-5	Styrene	5.0	U F1	5.0	1.1

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-110-0/1-0 Lab Sample ID: 180-69061-25  
 Matrix: Water Lab File ID: 50809D06.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 04:03  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	3.8
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.9
107-13-1	Acrylonitrile	100	U	100	17
123-91-1	1,4-Dioxane	1000	U	1000	78

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D06.D  
 Lims ID: 180-69061-C-25  
 Client ID: HD-MW-110-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 04:03:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-006  
 Misc. Info.: 180-69061-C-25  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 04:47:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.346	4.373	-0.027	0	304297	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.336	0.003	98	532788	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.426	0.004	86	152549	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.768	0.004	96	228487	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.609	6.618	-0.009	93	125770	49.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.983	0.003	0	154390	49.4	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.978	0.004	93	517137	42.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.616	11.612	0.004	86	222881	50.8	
11 Dichlorodifluoromethane	85		1.684				ND	
12 Chloromethane	50		1.830				ND	
13 Vinyl chloride	62		1.970				ND	
14 Butadiene	39		1.988				ND	
15 Bromomethane	94		2.292				ND	
16 Chloroethane	64		2.457				ND	
17 Dichlorofluoromethane	67		2.743				ND	
18 Trichlorofluoromethane	101		2.791				ND	
19 Ethanol	45		2.821				ND	
20 Ethyl ether	59		3.120				ND	
21 Acrolein	56		3.302				ND	
22 1,1-Dichloroethene	96		3.424				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.497				ND	
24 Acetone	43	3.549	3.533	0.016	66	8319	5.97	
25 Iodomethane	142		3.619				ND	
26 Carbon disulfide	76		3.698				ND	
27 Isopropyl alcohol	45	3.823	3.752	0.071	97	19761	121.6	
29 Acetonitrile	41		3.904				ND	
28 3-Chloro-1-propene	76		4.002				ND	
30 Methyl acetate	43		4.026				ND	
31 Methylene Chloride	84		4.221				ND	
32 2-Methyl-2-propanol	59		4.507				ND	
33 Acrylonitrile	53		4.604				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.635				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
36 Hexane	57		5.048				ND	
37 1,1-Dichloroethane	63		5.267				ND	
39 2-Chloro-1,3-butadiene	53		5.309				ND	
41 Isopropyl ether	45		5.316				ND	
38 Vinyl acetate	43		5.322				ND	
40 Isopropyl ether TIC	45		5.410				ND	
42 Tert-butyl ethyl ether	59		5.790				ND	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
44 2,2-Dichloropropane	97		6.009				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.022				ND	
47 Propionitrile	54		6.052				ND	
48 Ethyl acetate	43		6.052				ND	
50 Methacrylonitrile	41		6.222				ND	
49 Chlorobromomethane	128		6.289				ND	
51 Tetrahydrofuran	42		6.307				ND	
52 Chloroform	83	6.433	6.435	-0.002	47	2572	0.4984	
53 1,1,1-Trichloroethane	97		6.593				ND	
54 Cyclohexane	56		6.660				ND	
56 Carbon tetrachloride	117		6.758				ND	
55 1,1-Dichloropropene	75		6.776				ND	
57 Isobutyl alcohol	41		6.983				ND	
58 Benzene	78		6.995				ND	
59 1,2-Dichloroethane	62		7.068				ND	
151 Isooctane	57		7.104				ND	
61 Tert-amyl methyl ether	73		7.128				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.354				ND	
63 n-Butanol	56		7.646				ND	
64 Trichloroethene	130	7.722	7.725	-0.003	90	2457	0.7537	
65 Ethyl acrylate	55		7.810				ND	
66 Methylcyclohexane	83		7.956				ND	
67 1,2-Dichloropropane	63		7.993				ND	
69 Methyl methacrylate	69		8.047				ND	
70 1,4-Dioxane	88		8.078				ND	
68 Dibromomethane	93		8.084				ND	
71 Dichlorobromomethane	83		8.279				ND	
73 2-Chloroethyl vinyl ether	63		8.577				ND	
74 cis-1,3-Dichloropropene	75		8.717				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.875				ND	
76 Toluene	91		9.045				ND	
77 trans-1,3-Dichloropropene	75		9.294				ND	
78 Ethyl methacrylate	69		9.355				ND	
79 1,1,2-Trichloroethane	97		9.489				ND	
80 Tetrachloroethene	164	9.560	9.556	0.004	96	128910	44.4	
81 1,3-Dichloropropane	76		9.647				ND	
82 2-Hexanone	43		9.702				ND	
83 n-Butyl acetate	43		9.805				ND	
84 Chlorodibromomethane	129		9.860				ND	
85 Ethylene Dibromide	107		9.970				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.432				ND	
87 Chlorobenzene	112		10.456				ND	
88 4-Chlorobenzotrifluoride	180		10.517				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.089				ND	
95 Cyclohexanol	57		11.189				ND	
94 Bromoform	173		11.272				ND	
96 2-Chlorobenzotrifluoride	180		11.339				ND	
97 Isopropylbenzene	105		11.436				ND	
98 Cyclohexanone	55		11.515				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
100 Bromobenzene	156		11.752				ND	
102 trans-1,4-Dichloro-2-buten	53		11.789				ND	
101 1,2,3-Trichloropropane	110		11.807				ND	
103 N-Propylbenzene	120		11.856				ND	
104 2-Chlorotoluene	126		11.941				ND	
105 3-Chlorotoluene	126		12.008				ND	
106 1,3,5-Trimethylbenzene	105		12.038				ND	
107 4-Chlorotoluene	126		12.062				ND	
108 tert-Butylbenzene	119		12.348				ND	
110 1,2,4-Trimethylbenzene	105	12.413	12.409	0.004	1	394	0.0267	
111 1,2-dichloro-4-(trifluorom	214		12.458				ND	
112 sec-Butylbenzene	105		12.573				ND	
113 1,3-Dichlorobenzene	146	12.693	12.695	-0.002	1	597	0.0753	
114 4-Isopropyltoluene	119		12.732				ND	
115 1,4-Dichlorobenzene	146		12.792				ND	
116 2,4-Dichloro-1-(triflourom	214		12.823				ND	
117 1,2,3-Trimethylbenzene	105		12.835				ND	
118 2,5-Dichlorobenzotrifluori	214		12.865				ND	
119 Benzyl chloride	91		12.926				ND	
120 n-Butylbenzene	91		13.139				ND	
121 1,2-Dichlorobenzene	146		13.151				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.948				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.082				ND	
124 1,3,5-Trichlorobenzene	180		14.179				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.502				ND	
126 1,2,4-Trichlorobenzene	180		14.763				ND	
127 Hexachlorobutadiene	225		14.916				ND	
128 Naphthalene	128		15.031				ND	
129 1,2,3-Trichlorobenzene	180		15.262				ND	
131 2,4,5-Trichlorotoluene	159		16.029				ND	
130 2,3,6-Trichlorotoluene	159		16.120				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
S 154 Total BTEX	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96		1.000				ND	
S 133 Xylenes, Total	106		1.000				ND	
S 135 1,3-Dichloropropene, Total	1		0.000				ND	
T 138 Methyl n-amyl ketone TIC	43		0.000				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000				ND	
T 153 1,2 Epoxybutane TIC	42		6.253				ND	
T 137 Tetrahydrofuran TIC	42	6.311	6.253	0.058	37	1480	0	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D06.D

Injection Date: 09-Aug-2017 04:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-25

Lab Sample ID: 180-69061-25

Worklist Smp#: 6

Client ID: HD-MW-110-0/1-0

Purge Vol: 5.000 mL

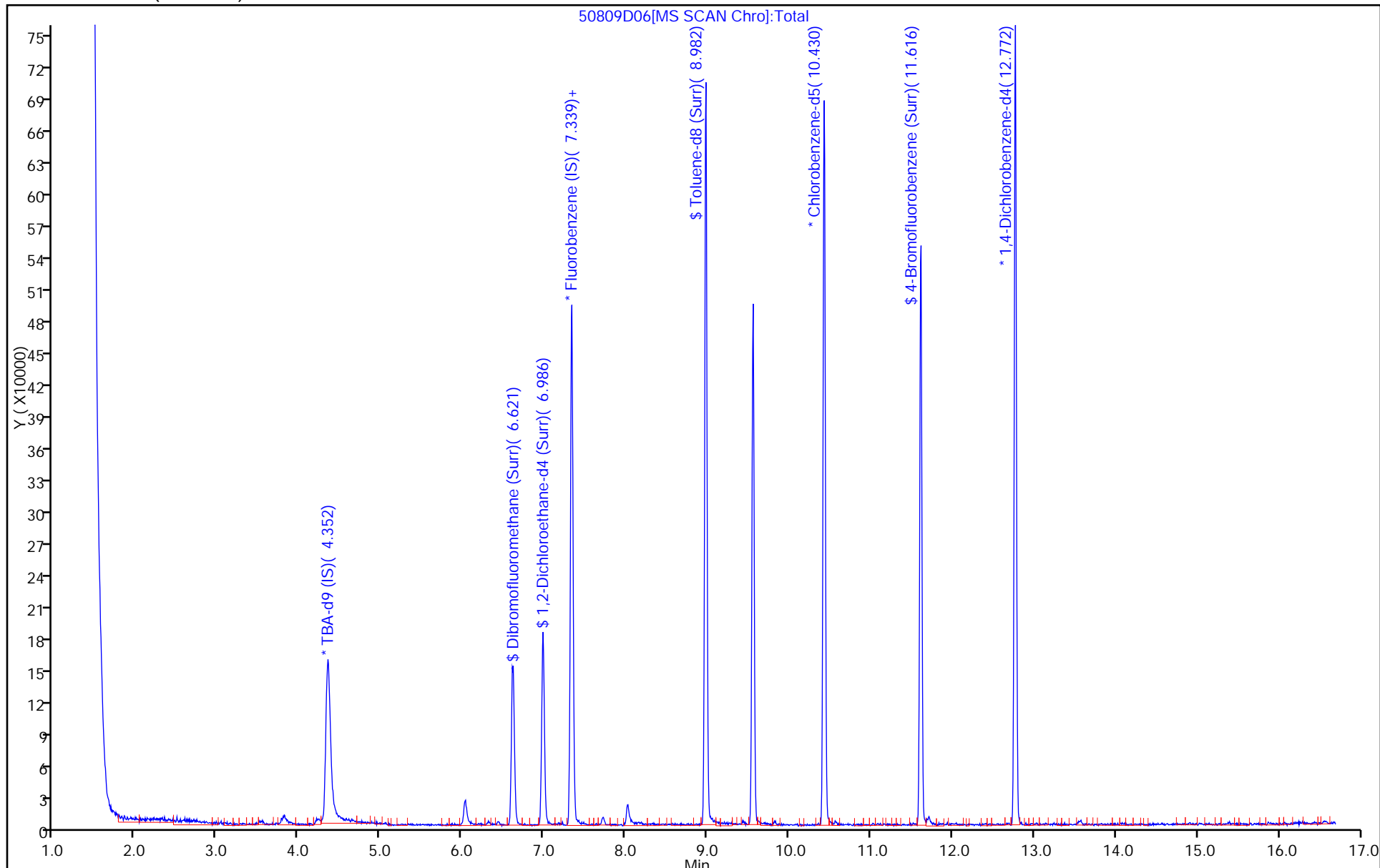
Dil. Factor: 5.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D06.D  
 Lims ID: 180-69061-C-25  
 Client ID: HD-MW-110-0/1-0  
 Sample Type: Client  
 Inject. Date: 09-Aug-2017 04:03:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-006  
 Misc. Info.: 180-69061-C-25  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

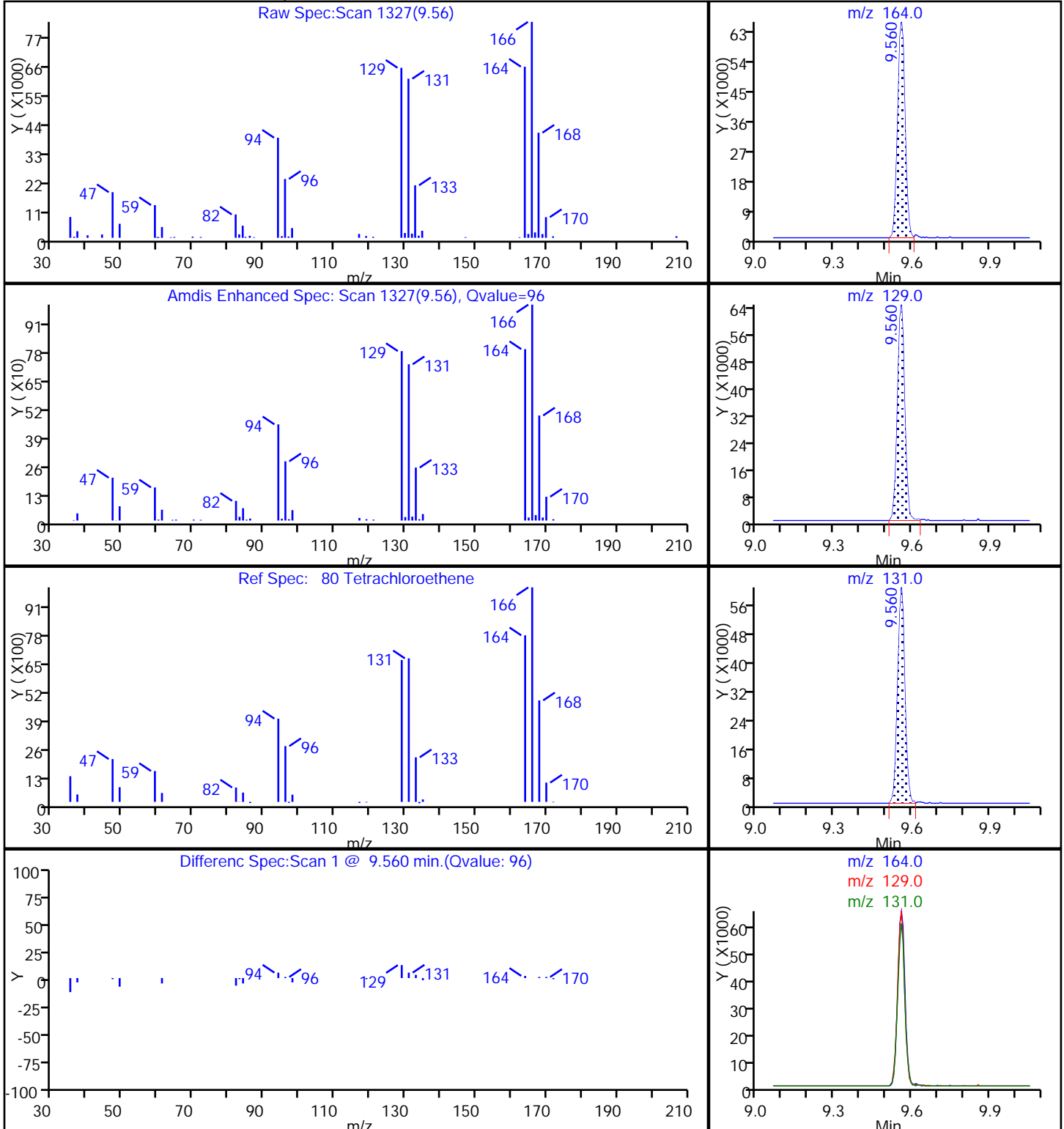
Date: 09-Aug-2017 04:47:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.1	98.12
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.4	98.76
\$ 7 Toluene-d8 (Surr)	50.0	42.6	85.19
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.8	101.66

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D06.D  
Injection Date: 09-Aug-2017 04:03:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-25 Lab Sample ID: 180-69061-25  
Client ID: HD-MW-110-0/1-0  
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 5.000 mL Dil. Factor: 5.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-109S-0/1-0 Lab Sample ID: 180-69061-26  
 Matrix: Water Lab File ID: 50811D17.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 12:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 08:09  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U ^c	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.3		1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-109S-0/1-0 Lab Sample ID: 180-69061-26  
 Matrix: Water Lab File ID: 50811D17.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 12:10  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 08:09  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	91		73-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D17.D  
 Lims ID: 180-69061-B-26  
 Client ID: HD-MW-109S-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 08:09:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-017  
 Misc. Info.: 180-69061-B-26  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf

Date: 13-Aug-2017 23:57:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.355	-0.002	0	282351	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.336	0.004	98	584569	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.427	0.003	85	151758	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.769	-0.003	96	228859	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.616	0.000	93	134416	47.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.987	-0.006	0	173075	50.5	
\$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	547360	45.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.610	0.000	87	220747	50.6	
12 Chloromethane	50		1.822				ND	
13 Vinyl chloride	62		1.968				ND	
15 Bromomethane	94		2.327				ND	
16 Chloroethane	64		2.449				ND	
22 1,1-Dichloroethene	96		3.410				ND	
24 Acetone	43	3.520	3.532	-0.012	93	17354	11.4	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.219				ND	
33 Acrylonitrile	53		4.602				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73	4.657	4.645	0.012	95	56270	6.44	
37 1,1-Dichloroethane	63		5.265				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43		6.020				ND	
49 Chlorobromomethane	128		6.293				ND	
52 Chloroform	83		6.433				ND	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.066				ND	
64 Trichloroethene	130		7.723				ND	
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164		9.560				ND	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.461				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.686				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D17.D

Injection Date: 11-Aug-2017 08:09:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-26

Lab Sample ID: 180-69061-26

Worklist Smp#: 17

Client ID: HD-MW-109S-0/1-0

Purge Vol: 5.000 mL

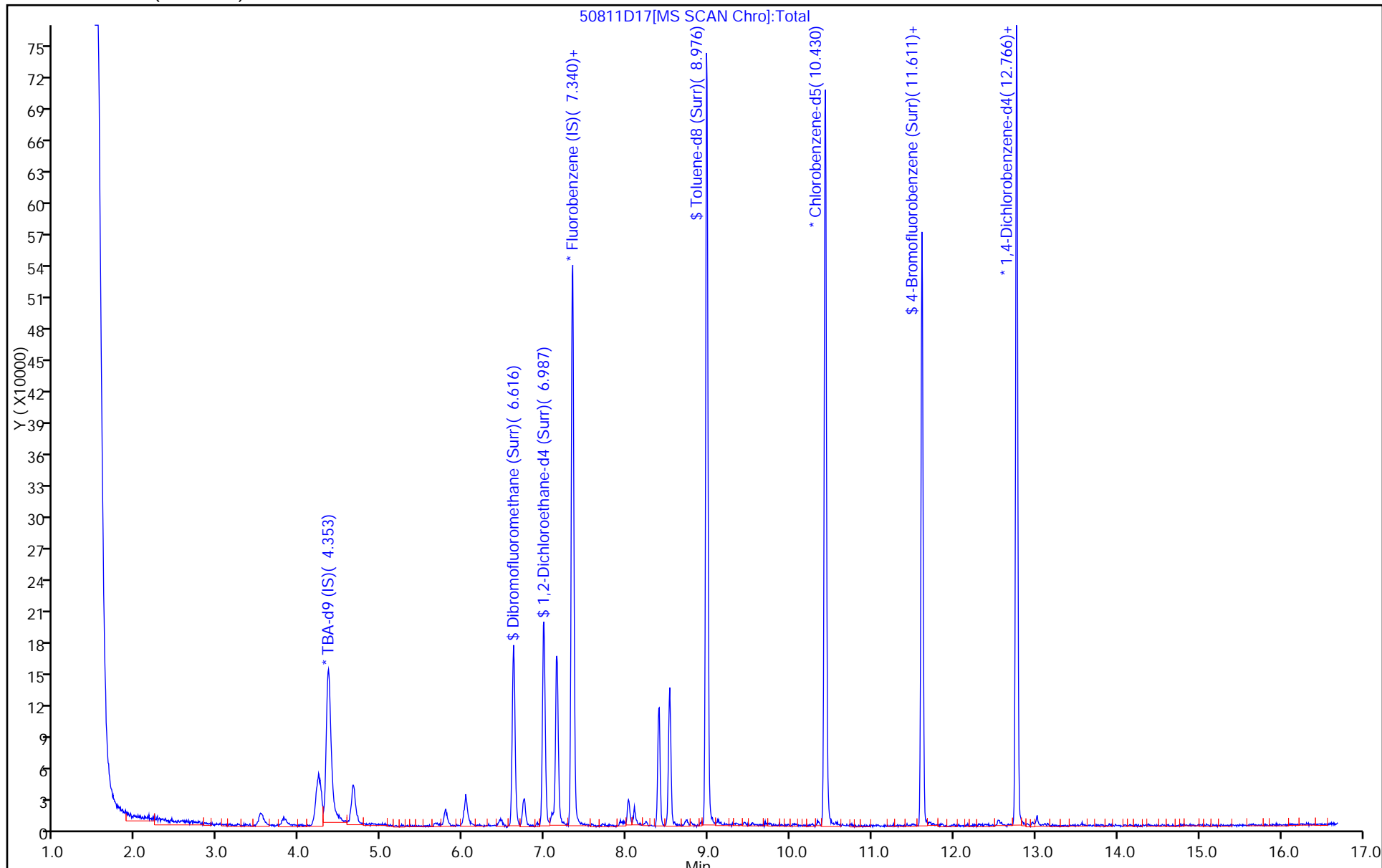
Dil. Factor: 1.0000

ALS Bottle#: 17

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D17.D  
 Lims ID: 180-69061-B-26  
 Client ID: HD-MW-109S-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 08:09:30 ALS Bottle#: 17 Worklist Smp#: 17  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-017  
 Misc. Info.: 180-69061-B-26  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 13-Aug-2017 23:57:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	47.8	95.58
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.5	100.90
\$ 7 Toluene-d8 (Surr)	50.0	45.3	90.64
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.6	101.21

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D17.D

Injection Date: 11-Aug-2017 08:09:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-26

Lab Sample ID: 180-69061-26

Client ID: HD-MW-109S-0/1-0

Operator ID: 034635

ALS Bottle#: 17

Worklist Smp#: 17

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

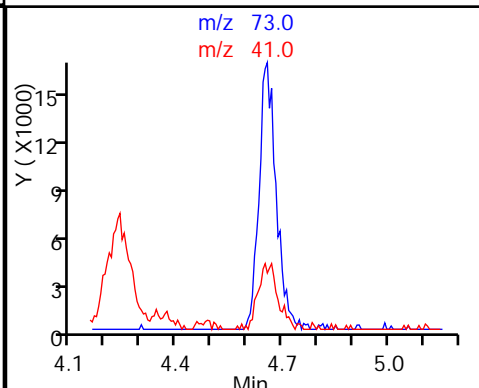
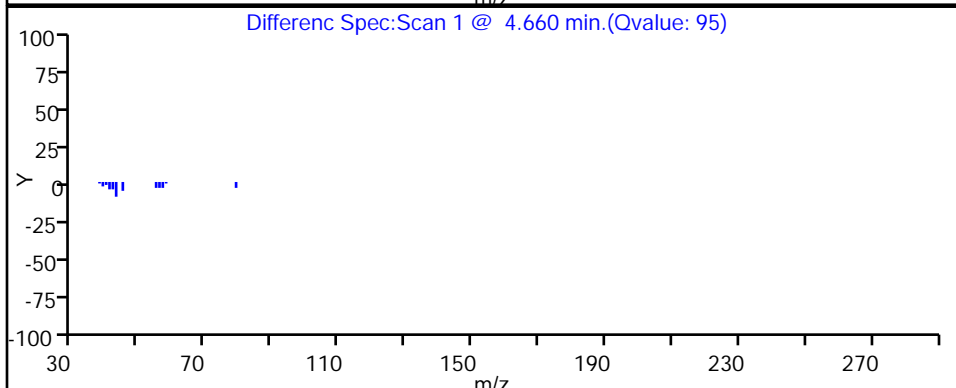
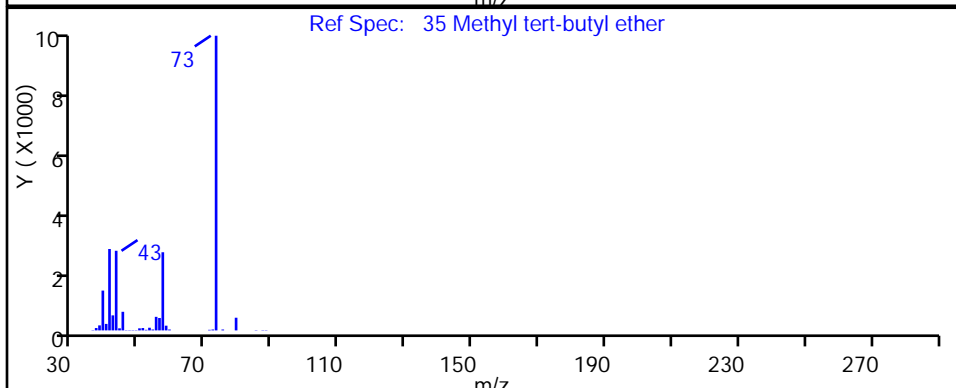
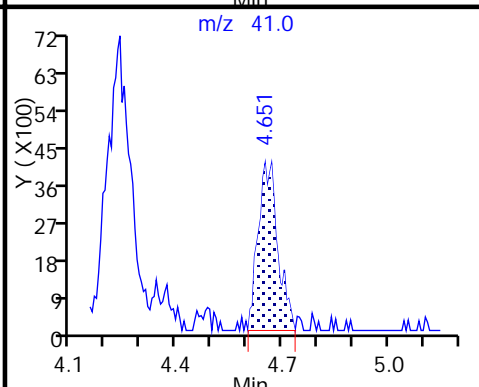
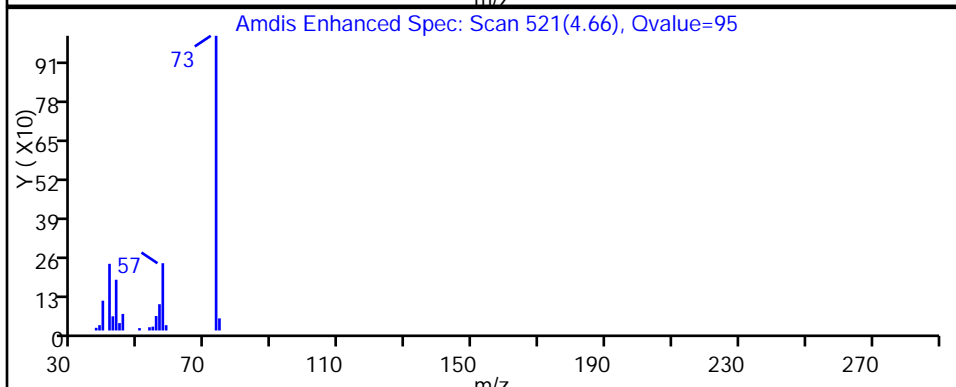
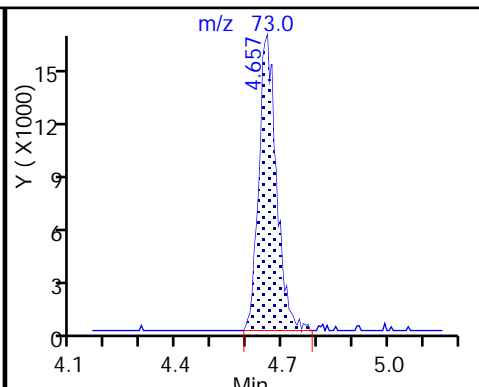
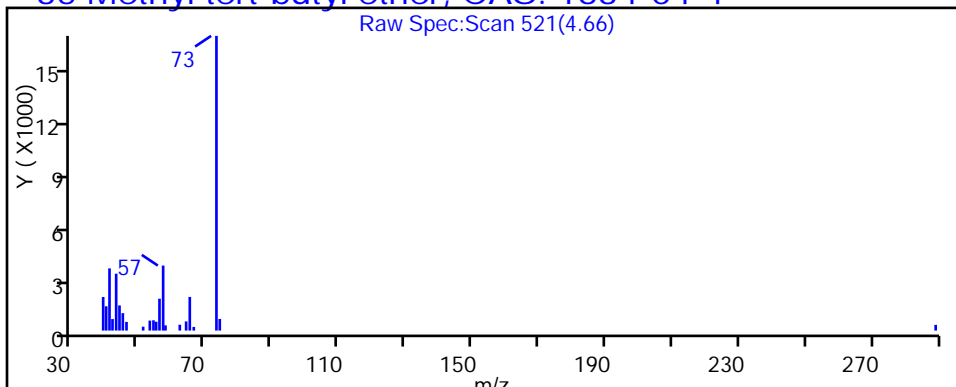
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

35 Methyl tert-butyl ether, CAS: 1634-04-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-69061-27  
 Matrix: Water Lab File ID: 50810D24.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 09:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U ^c	5.0	3.1
75-15-0	Carbon disulfide	1.0	U ^c	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	0.60	J	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	0.97	J	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	52	E	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-69061-27  
 Matrix: Water Lab File ID: 50810D24.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 09:40  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D24.D  
 Lims ID: 180-69061-C-27  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 09:40:30 ALS Bottle#: 24 Worklist Smp#: 24  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-024  
 Misc. Info.: 180-69061-C-27  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:33:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.376	-0.021	0	268485	1000.0	
* 2 Fluorobenzene (IS)	96	7.342	7.333	0.009	99	492887	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.423	0.004	85	144029	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	96	228271	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.615	-0.003	93	123366	52.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.989	6.986	0.003	0	151748	52.5	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.975	0.004	93	485963	42.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.609	0.004	85	214407	51.8	
12 Chloromethane	50		1.827				ND	
13 Vinyl chloride	62		1.967				ND	
15 Bromomethane	94		2.283				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.409				ND	
24 Acetone	43	3.528	3.524	0.004	93	6774	5.26	
26 Carbon disulfide	76		3.713				ND	
31 Methylene Chloride	84		4.218				ND	
33 Acrylonitrile	53		4.607				ND	
34 trans-1,2-Dichloroethene	96		4.632				ND	
35 Methyl tert-butyl ether	73	4.641	4.650	-0.009	40	4691	0.6363	
37 1,1-Dichloroethane	63		5.258				ND	
45 cis-1,2-Dichloroethene	96		6.000				ND	
46 2-Butanone (MEK)	43		6.025				ND	
49 Chlorobromomethane	128		6.286				ND	
52 Chloroform	83	6.442	6.432	0.010	93	14389	3.01	
53 1,1,1-Trichloroethane	97	6.582	6.591	-0.009	1	572	0.1583	
56 Carbon tetrachloride	117		6.761				ND	
58 Benzene	78		6.992				ND	
59 1,2-Dichloroethane	62		7.071				ND	
64 Trichloroethene	130	7.726	7.722	0.004	95	14666	4.86	
67 1,2-Dichloropropane	63		7.990				ND	
70 1,4-Dioxane	88		8.075				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.276				ND	
74 cis-1,3-Dichloropropene	75		8.720				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.872				ND	
76 Toluene	91		9.048				ND	
77 trans-1,3-Dichloropropene	75		9.292				ND	
79 1,1,2-Trichloroethane	97		9.486				ND	
80 Tetrachloroethene	164	9.557	9.559	-0.002	96	716693	261.7	E
82 2-Hexanone	43		9.705				ND	
84 Chlorodibromomethane	129		9.857				ND	
85 Ethylene Dibromide	107		9.973				ND	
87 Chlorobenzene	112		10.460				ND	
89 1,1,1,2-Tetrachloroethane	131		10.551				ND	
90 Ethylbenzene	106		10.557				ND	
91 m-Xylene & p-Xylene	106		10.691				ND	
92 o-Xylene	106		11.068				ND	
93 Styrene	104		11.092				ND	
94 Bromoform	173		11.275				ND	
99 1,1,2,2-Tetrachloroethane	83		11.749				ND	
S 133 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

### Reagents:

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D24.D

Injection Date: 10-Aug-2017 09:40:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-27

Lab Sample ID: 180-69061-27

Worklist Smp#: 24

Client ID: HD-QC1-0/1-1

Purge Vol: 5.000 mL

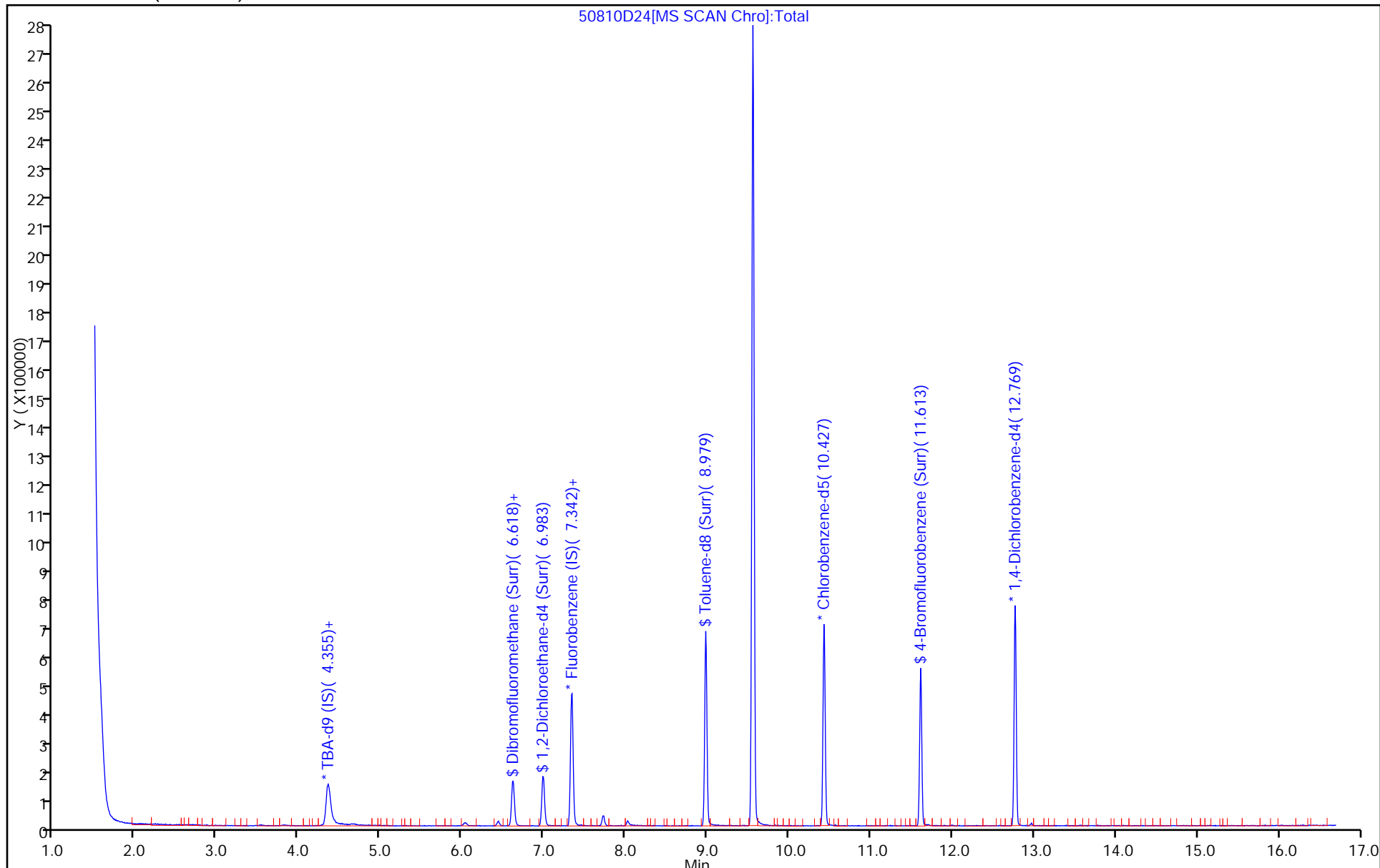
Dil. Factor: 1.0000

ALS Bottle#: 24

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D24.D  
 Lims ID: 180-69061-C-27  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 10-Aug-2017 09:40:30 ALS Bottle#: 24 Worklist Smp#: 24  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-024  
 Misc. Info.: 180-69061-C-27  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 23:33:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.0	104.04
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	52.5	104.93
\$ 7 Toluene-d8 (Surr)	50.0	42.4	84.79
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.8	103.58

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D24.D

Injection Date: 10-Aug-2017 09:40:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-27

Lab Sample ID: 180-69061-27

Client ID: HD-QC1-0/1-1

Operator ID: 034635

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

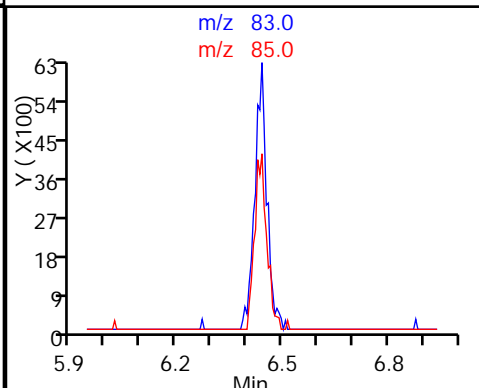
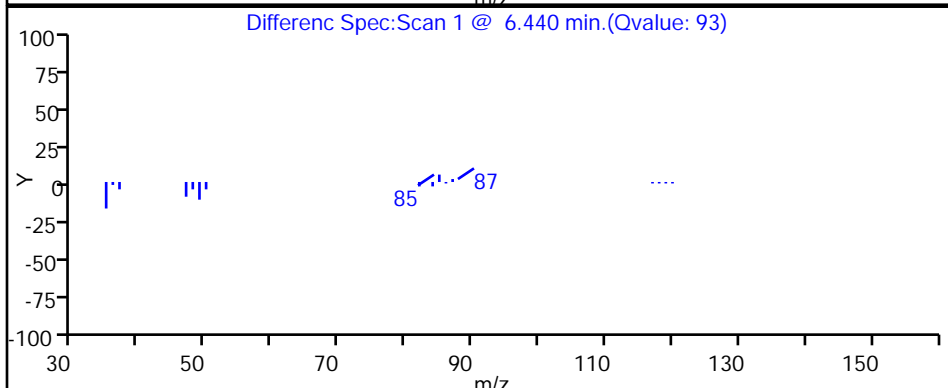
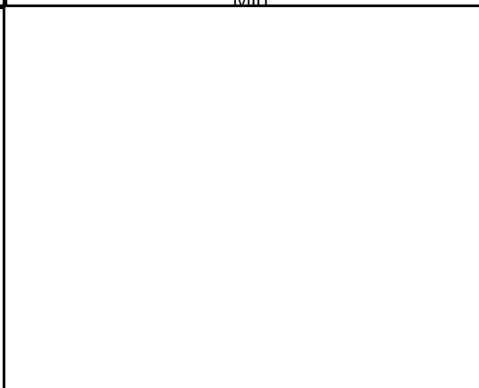
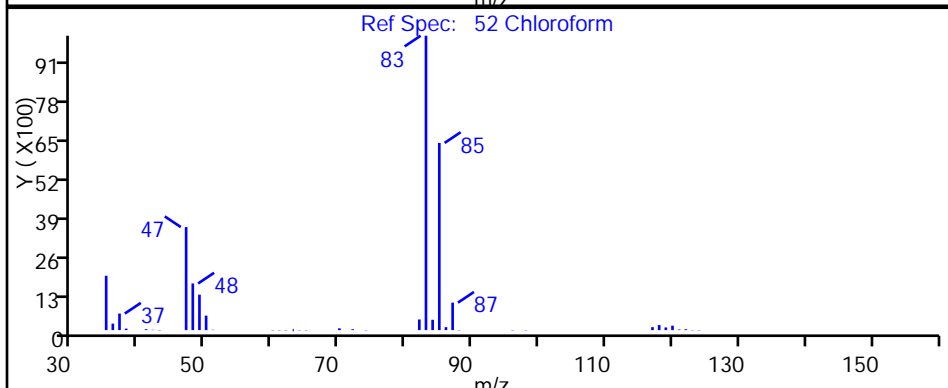
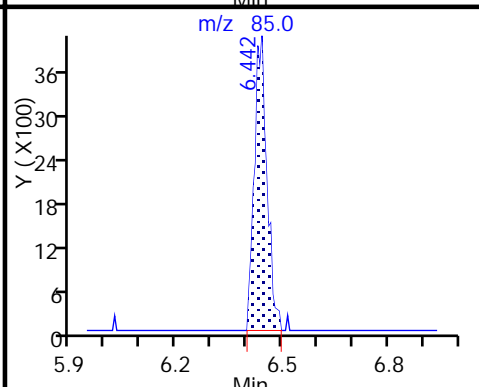
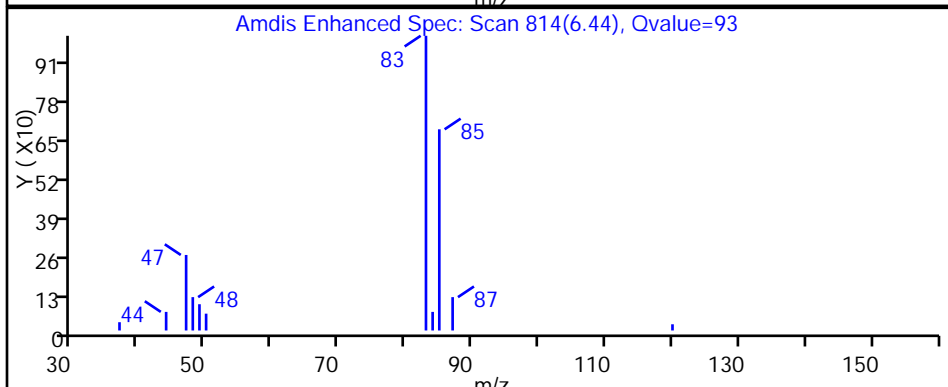
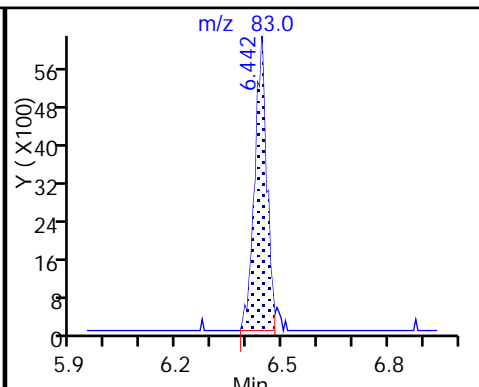
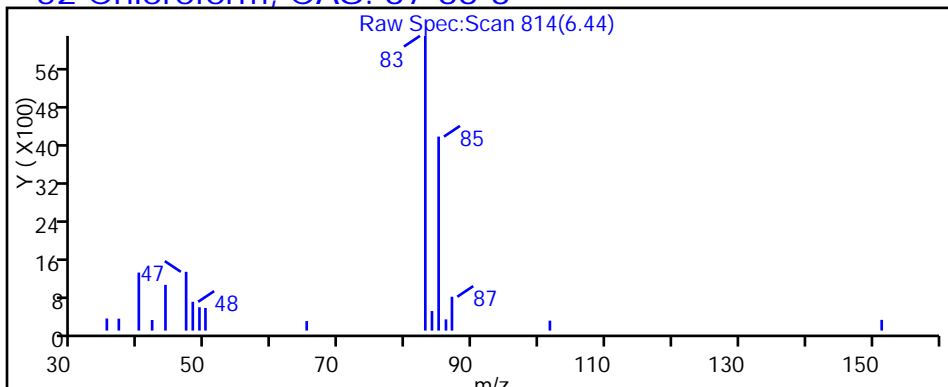
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

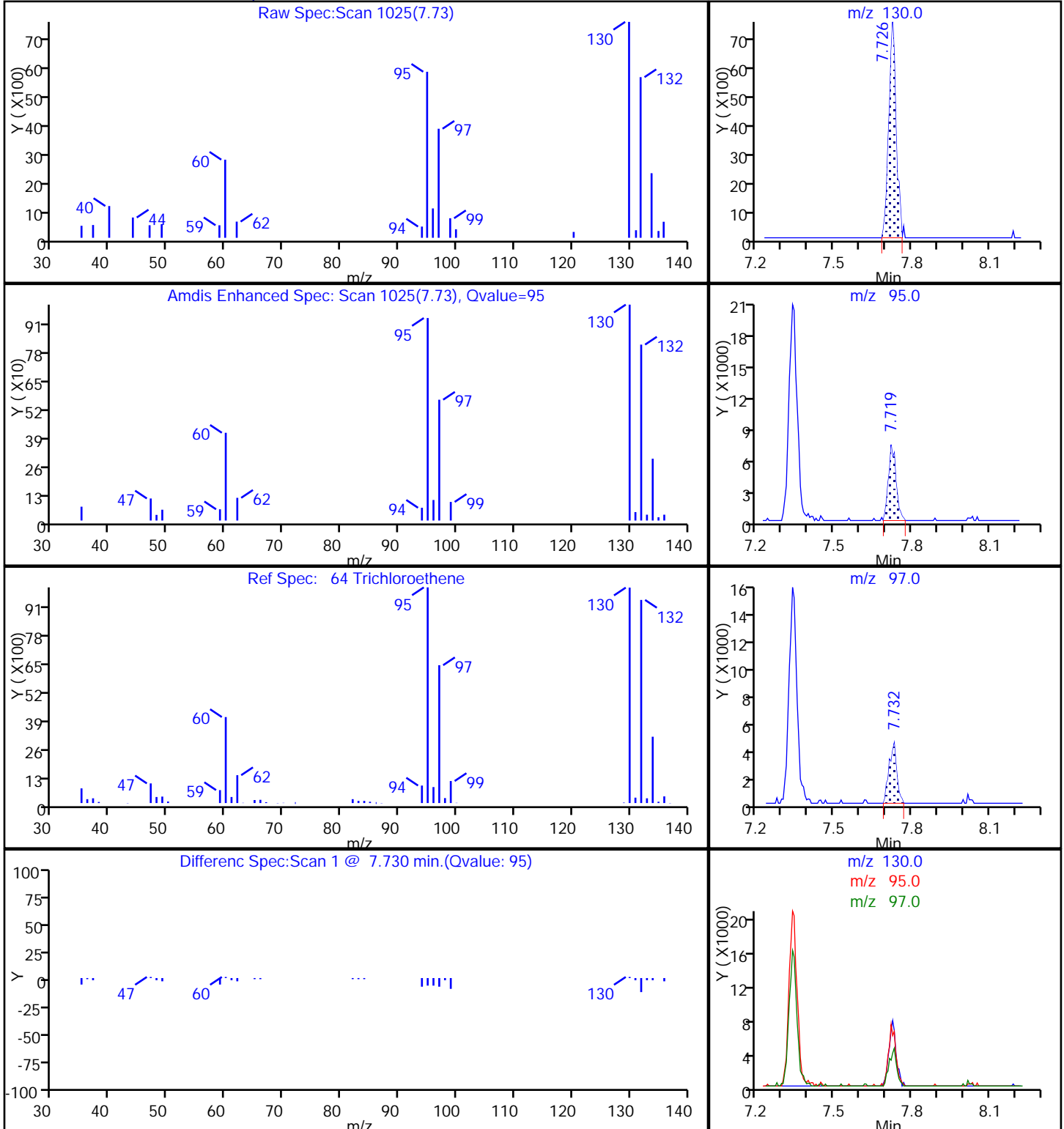
52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D24.D  
Injection Date: 10-Aug-2017 09:40:30 Instrument ID: CHHP5  
Lims ID: 180-69061-C-27 Lab Sample ID: 180-69061-27  
Client ID: HD-QC1-0/1-1  
Operator ID: 034635 ALS Bottle#: 24 Worklist Smp#: 24  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D24.D

Injection Date: 10-Aug-2017 09:40:30

Instrument ID: CHHP5

Lims ID: 180-69061-C-27

Lab Sample ID: 180-69061-27

Client ID: HD-QC1-0/1-1

Operator ID: 034635

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

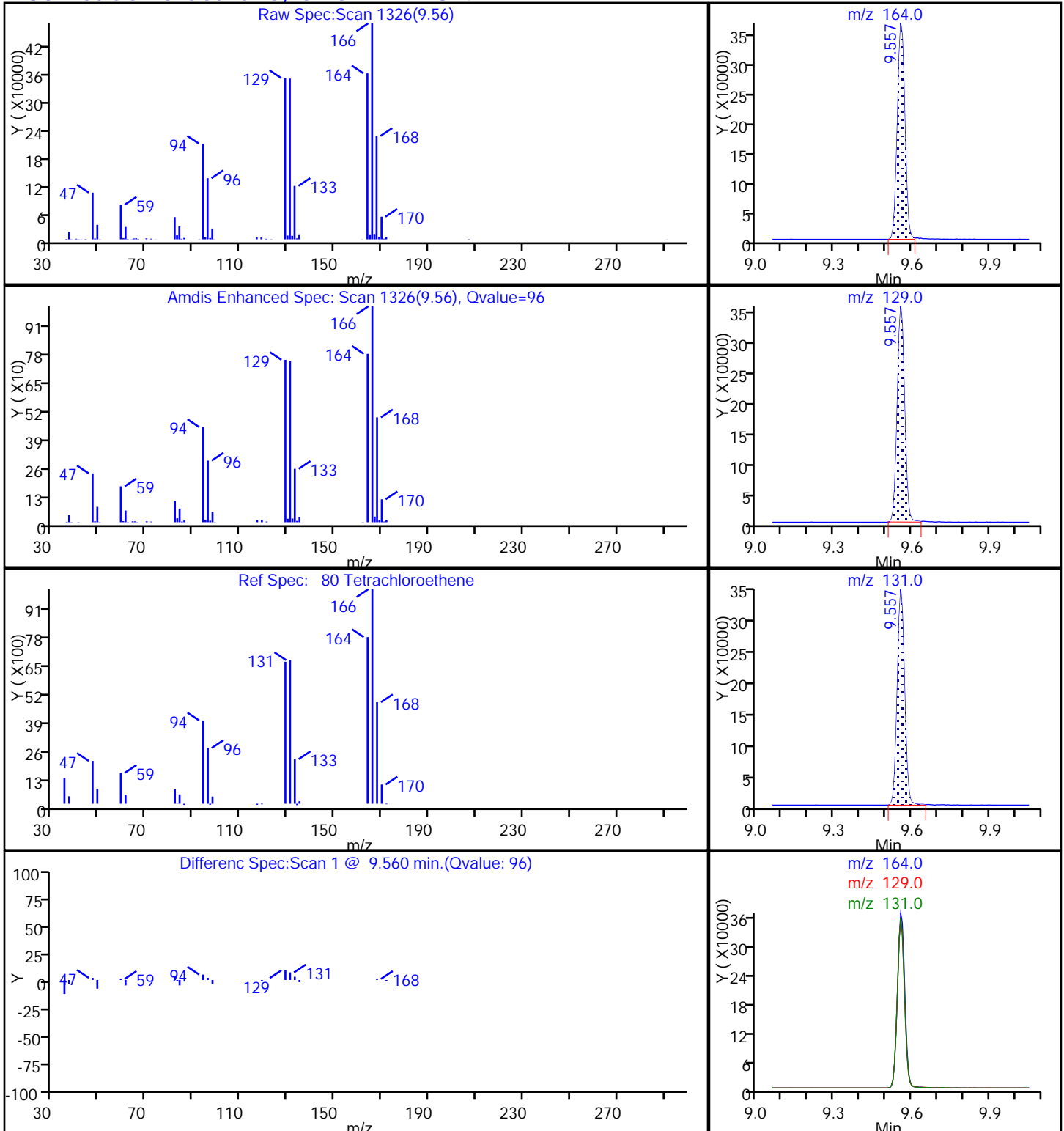
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 DL Lab Sample ID: 180-69061-27 DL  
 Matrix: Water Lab File ID: 50811D19.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 08:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 2  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	2.0	U	2.0	0.76
75-01-4	Vinyl chloride	2.0	U	2.0	0.34
74-83-9	Bromomethane	2.0	U ^c	2.0	1.2
75-00-3	Chloroethane	2.0	U	2.0	1.2
75-35-4	1,1-Dichloroethene	2.0	U	2.0	0.64
67-64-1	Acetone	10	U ^c	10	6.3
75-15-0	Carbon disulfide	2.0	U	2.0	1.1
75-09-2	Methylene Chloride	2.0	U	2.0	1.9
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	0.40
1634-04-4	Methyl tert-butyl ether	2.0	U	2.0	0.39
75-34-3	1,1-Dichloroethane	2.0	U	2.0	0.68
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	0.61
74-97-5	Bromochloromethane	2.0	U	2.0	0.72
78-93-3	2-Butanone (MEK)	10	U	10	5.1
67-66-3	Chloroform	0.54	J	2.0	0.53
71-55-6	1,1,1-Trichloroethane	2.0	U	2.0	0.54
56-23-5	Carbon tetrachloride	2.0	U	2.0	1.1
71-43-2	Benzene	2.0	U	2.0	0.36
107-06-2	1,2-Dichloroethane	2.0	U	2.0	0.48
79-01-6	Trichloroethene	0.57	J	2.0	0.40
78-87-5	1,2-Dichloropropane	2.0	U	2.0	0.69
75-27-4	Bromodichloromethane	2.0	U	2.0	1.1
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	0.64
108-10-1	4-Methyl-2-pentanone (MIBK)	10	U	10	4.4
108-88-3	Toluene	2.0	U	2.0	0.31
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	0.44
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	0.61
127-18-4	Tetrachloroethene	33		2.0	0.49
591-78-6	2-Hexanone	10	U	10	4.0
124-48-1	Dibromochloromethane	2.0	U	2.0	0.87
106-93-4	1,2-Dibromoethane (EDB)	2.0	U	2.0	1.0
108-90-7	Chlorobenzene	2.0	U	2.0	0.29
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.99
100-41-4	Ethylbenzene	2.0	U	2.0	0.50
1330-20-7	Xylenes, Total	4.0	U	4.0	0.54
100-42-5	Styrene	2.0	U	2.0	0.43

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 DL Lab Sample ID: 180-69061-27 DL  
 Matrix: Water Lab File ID: 50811D19.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 08:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 2  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	<i>Bromoform</i>	2.0	U	2.0	1.5
79-34-5	<i>1,1,2,2-Tetrachloroethane</i>	2.0	U	2.0	0.74
107-13-1	<i>Acrylonitrile</i>	40	U	40	6.7
123-91-1	<i>1,4-Dioxane</i>	400	U	400	31

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D19.D  
 Lims ID: 180-69061-A-27  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 08:57:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 2.0000  
 Sample Info: 180-0017984-019  
 Misc. Info.: 180-69061-A-27  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf

Date: 13-Aug-2017 23:59:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.348	4.355	-0.007	0	255801	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	98	573314	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.427	0.005	86	148883	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.769	-0.001	97	218129	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.611	6.616	-0.005	93	133700	48.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.987	-0.005	0	174713	51.9	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.976	0.002	93	527736	44.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.610	0.002	86	208702	48.8	
12 Chloromethane	50		1.822				ND	
13 Vinyl chloride	62		1.968				ND	
15 Bromomethane	94		2.327				ND	
16 Chloroethane	64		2.449				ND	
22 1,1-Dichloroethene	96		3.410				ND	
24 Acetone	43	3.521	3.532	-0.011	99	10889	7.26	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.219				ND	
33 Acrylonitrile	53		4.602				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73	4.665	4.645	0.020	24	1934	0.2255	
37 1,1-Dichloroethane	63		5.265				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43		6.020				ND	
49 Chlorobromomethane	128		6.293				ND	
52 Chloroform	83	6.435	6.433	0.002	91	7455	1.34	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.066				ND	
64 Trichloroethene	130	7.725	7.723	0.002	94	4972	1.42	
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.070				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.556	9.560	-0.004	97	235343	83.1	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.461				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.686				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D19.D

Injection Date: 11-Aug-2017 08:57:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-A-27

Lab Sample ID: 180-69061-27

Worklist Smp#: 19

Client ID: HD-QC1-0/1-1

Purge Vol: 5.000 mL

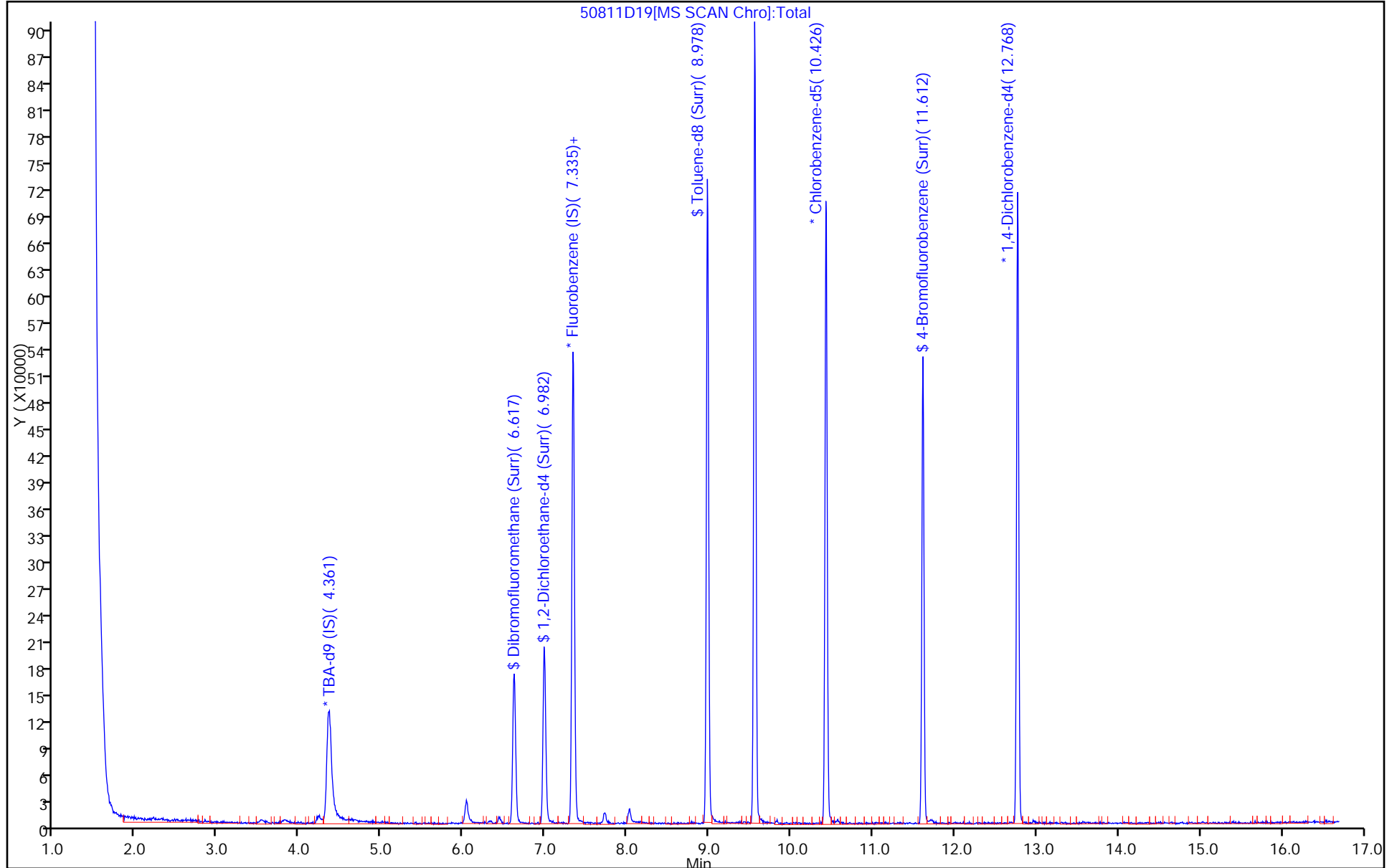
Dil. Factor: 2.0000

ALS Bottle#: 19

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D19.D  
 Lims ID: 180-69061-A-27  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 08:57:30 ALS Bottle#: 19 Worklist Smp#: 19  
 Purge Vol: 5.000 mL Dil. Factor: 2.0000  
 Sample Info: 180-0017984-019  
 Misc. Info.: 180-69061-A-27  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 13-Aug-2017 23:59:50

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.5	96.94
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.9	103.86
\$ 7 Toluene-d8 (Surr)	50.0	44.5	89.08
\$ 8 4-Bromofluorobenzene (Surr)	50.0	48.8	97.54

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D19.D

Injection Date: 11-Aug-2017 08:57:30

Instrument ID: CHHP5

Lims ID: 180-69061-A-27

Lab Sample ID: 180-69061-27

Client ID: HD-QC1-0/1-1

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 2.0000

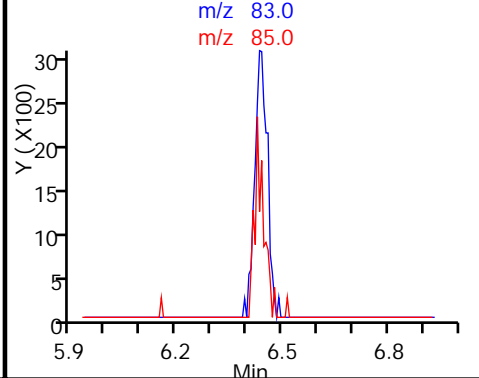
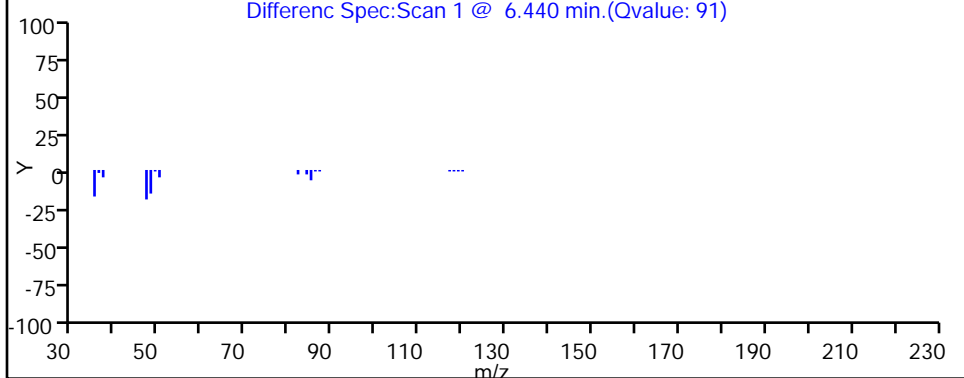
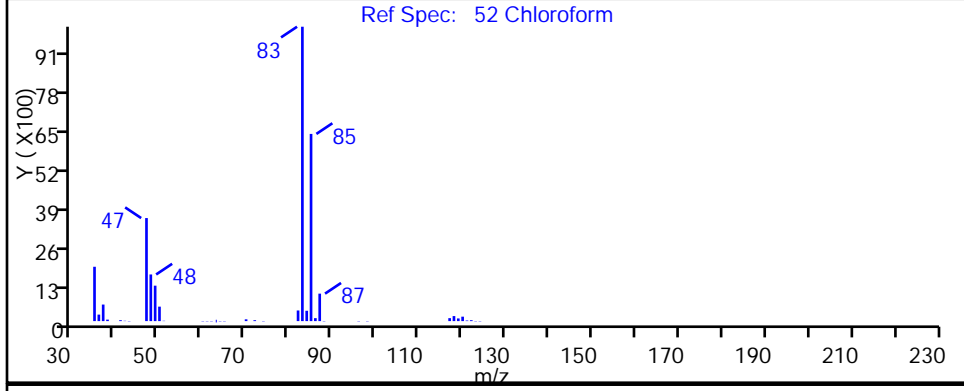
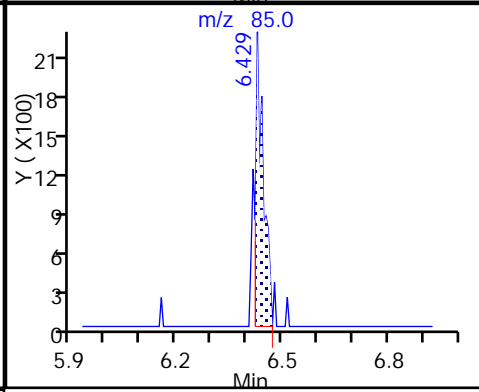
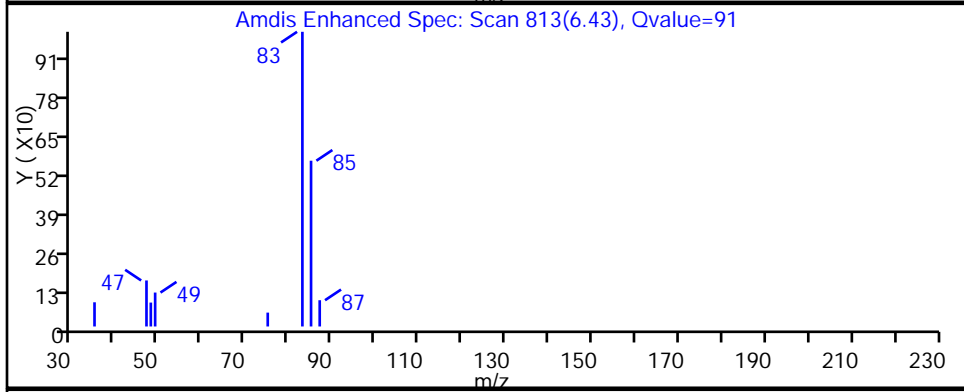
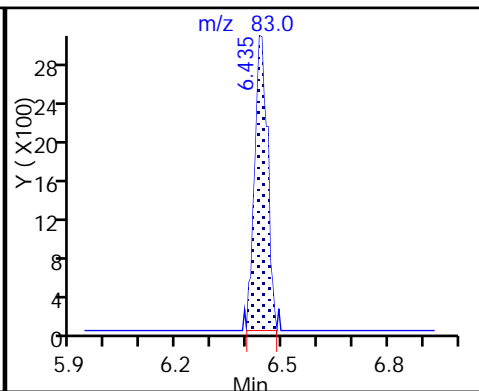
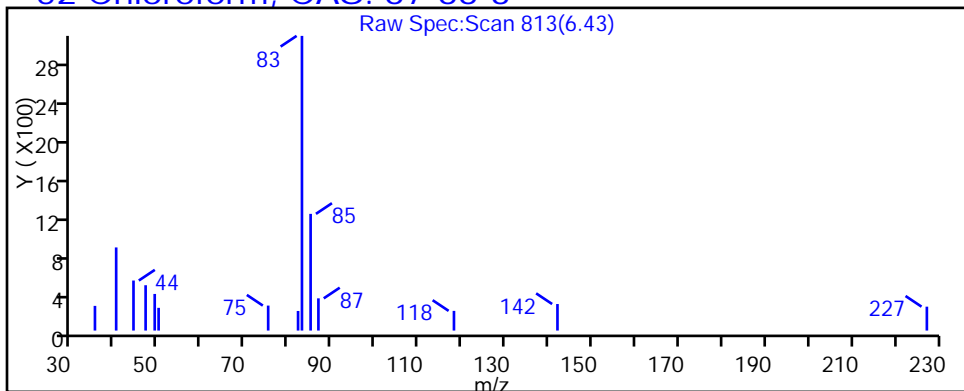
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

52 Chloroform, CAS: 67-66-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D19.D

Injection Date: 11-Aug-2017 08:57:30

Instrument ID: CHHP5

Lims ID: 180-69061-A-27

Lab Sample ID: 180-69061-27

Client ID: HD-QC1-0/1-1

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 2.0000

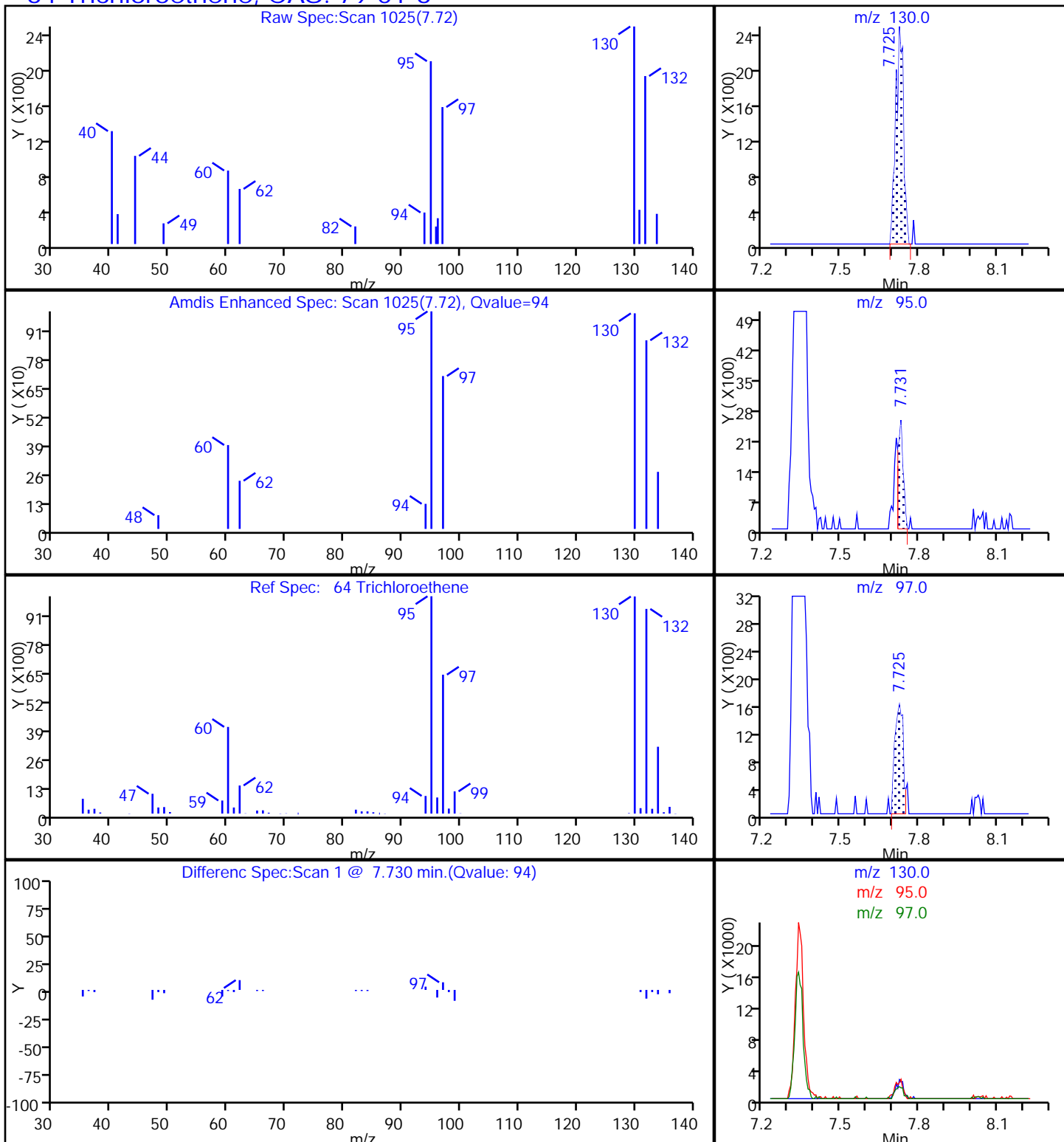
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D19.D

Injection Date: 11-Aug-2017 08:57:30

Instrument ID: CHHP5

Lims ID: 180-69061-A-27

Lab Sample ID: 180-69061-27

Client ID: HD-QC1-0/1-1

Operator ID: 034635

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 2.0000

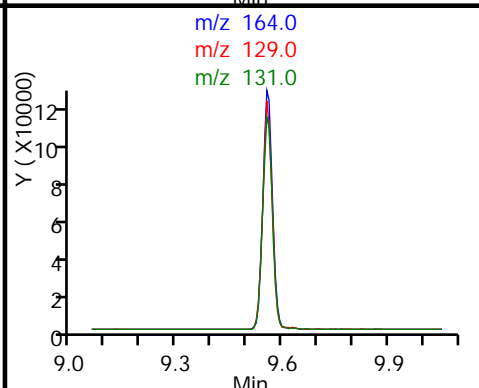
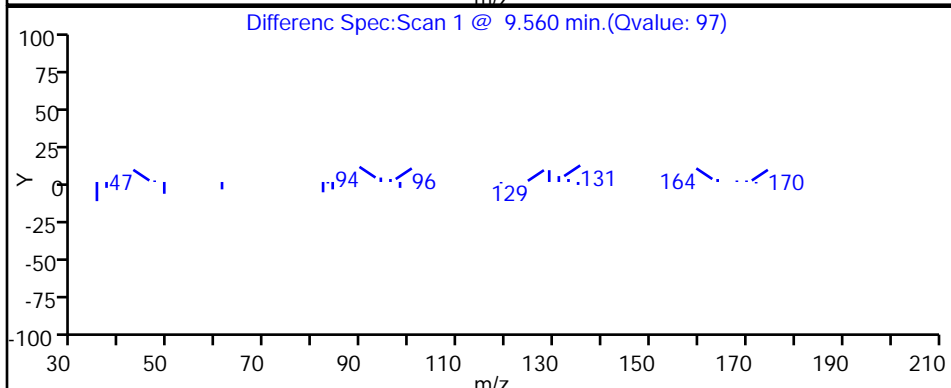
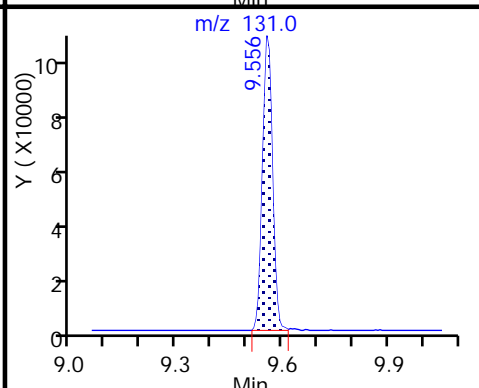
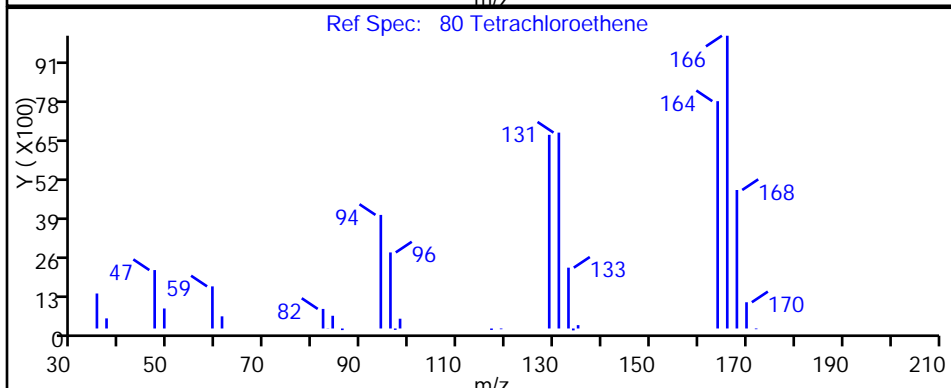
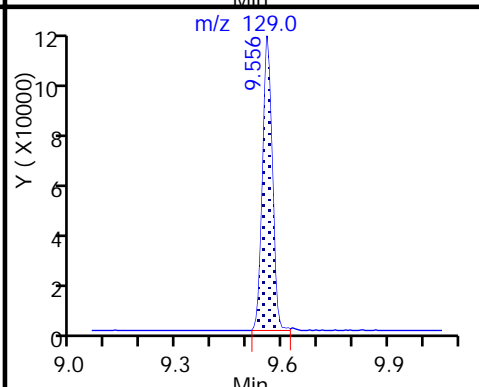
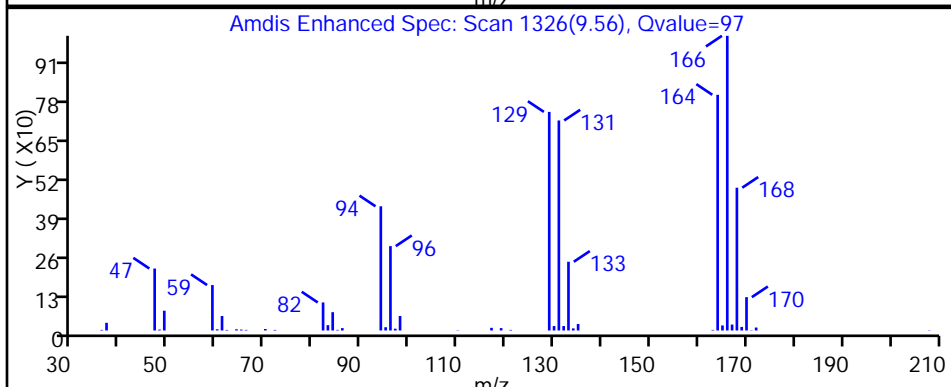
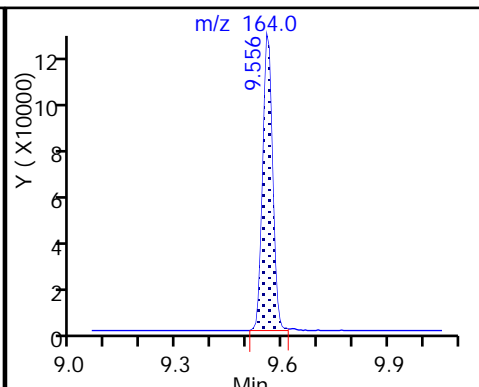
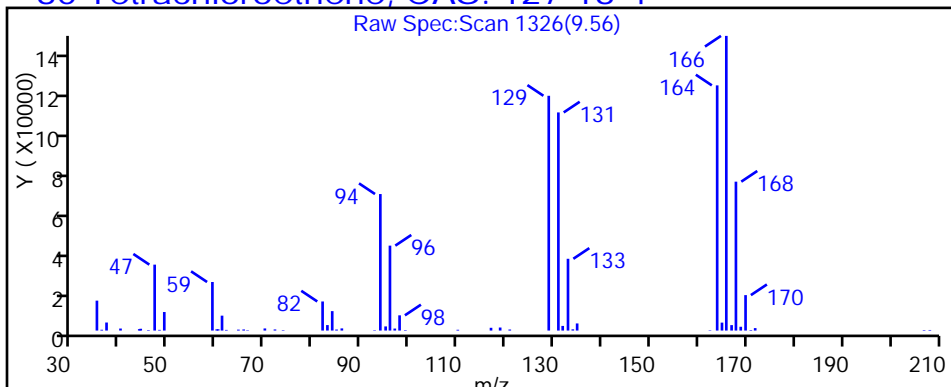
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-162-0/1-0 Lab Sample ID: 180-69061-28  
 Matrix: Water Lab File ID: 50811D21.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 07:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 09:45  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 20  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	20	U	20	7.6
75-01-4	Vinyl chloride	20	U	20	3.4
74-83-9	Bromomethane	20	U ^c	20	12
75-00-3	Chloroethane	20	U	20	12
75-35-4	1,1-Dichloroethene	20	U	20	6.4
67-64-1	Acetone	100	U ^c	100	63
75-15-0	Carbon disulfide	20	U	20	11
75-09-2	Methylene Chloride	20	U	20	19
156-60-5	trans-1,2-Dichloroethene	20	U	20	4.0
1634-04-4	Methyl tert-butyl ether	20	U	20	3.9
75-34-3	1,1-Dichloroethane	20	U	20	6.8
156-59-2	cis-1,2-Dichloroethene	20	U	20	6.1
74-97-5	Bromochloromethane	20	U	20	7.2
78-93-3	2-Butanone (MEK)	100	U	100	51
67-66-3	Chloroform	20	U	20	5.3
71-55-6	1,1,1-Trichloroethane	20	U	20	5.4
56-23-5	Carbon tetrachloride	20	U	20	11
71-43-2	Benzene	20	U	20	3.6
107-06-2	1,2-Dichloroethane	20	U	20	4.8
79-01-6	Trichloroethene	51		20	4.0
78-87-5	1,2-Dichloropropane	20	U	20	6.9
75-27-4	Bromodichloromethane	20	U	20	11
10061-01-5	cis-1,3-Dichloropropene	20	U	20	6.4
108-10-1	4-Methyl-2-pentanone (MIBK)	100	U	100	44
108-88-3	Toluene	20	U	20	3.1
10061-02-6	trans-1,3-Dichloropropene	20	U	20	4.4
79-00-5	1,1,2-Trichloroethane	20	U	20	6.1
127-18-4	Tetrachloroethene	330		20	4.9
591-78-6	2-Hexanone	100	U	100	40
124-48-1	Dibromochloromethane	20	U	20	8.7
106-93-4	1,2-Dibromoethane (EDB)	20	U	20	10
108-90-7	Chlorobenzene	20	U	20	2.9
630-20-6	1,1,1,2-Tetrachloroethane	20	U	20	9.9
100-41-4	Ethylbenzene	20	U	20	5.0
1330-20-7	Xylenes, Total	40	U	40	5.4
100-42-5	Styrene	20	U	20	4.3

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-162-0/1-0 Lab Sample ID: 180-69061-28  
 Matrix: Water Lab File ID: 50811D21.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 07:35  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 09:45  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 20  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	20	U	20	15
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	7.4
107-13-1	Acrylonitrile	400	U	400	67
123-91-1	1,4-Dioxane	4000	U	4000	310

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D21.D  
 Lims ID: 180-69061-B-28  
 Client ID: HD-MW-162-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 09:45:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 20.0000  
 Sample Info: 180-0017984-021  
 Misc. Info.: 180-69061-B-28  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf

Date: 14-Aug-2017 00:01:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.346	4.355	-0.009	0	240330	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.336	0.003	98	548108	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.427	0.003	86	137511	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.769	0.003	96	204713	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.616	-0.001	93	133513	50.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.987	-0.001	0	165868	51.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	93	510864	46.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	87	196776	49.8	
12 Chloromethane	50		1.822				ND	
13 Vinyl chloride	62		1.968				ND	
15 Bromomethane	94		2.327				ND	
16 Chloroethane	64		2.449				ND	
22 1,1-Dichloroethene	96		3.410				ND	
24 Acetone	43	3.525	3.532	-0.007	74	7312	5.10	
26 Carbon disulfide	76		3.708				ND	
31 Methylene Chloride	84		4.219				ND	
33 Acrylonitrile	53		4.602				ND	
34 trans-1,2-Dichloroethene	96		4.633				ND	
35 Methyl tert-butyl ether	73		4.645				ND	
37 1,1-Dichloroethane	63		5.265				ND	
45 cis-1,2-Dichloroethene	96		6.008				ND	
46 2-Butanone (MEK)	43	6.031	6.020	0.011	97	4925	2.41	
49 Chlorobromomethane	128		6.293				ND	
52 Chloroform	83		6.433				ND	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.762				ND	
58 Benzene	78		6.993				ND	
59 1,2-Dichloroethane	62		7.066				ND	
64 Trichloroethene	130	7.722	7.723	-0.001	97	42411	12.6	
67 1,2-Dichloropropane	63		7.997				ND	
70 1,4-Dioxane	88		8.070				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.277				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873				ND	
76 Toluene	91		9.049				ND	
77 trans-1,3-Dichloropropene	75		9.293				ND	
79 1,1,2-Trichloroethane	97		9.487				ND	
80 Tetrachloroethene	164	9.560	9.560	0.000	96	215792	82.5	
82 2-Hexanone	43		9.706				ND	
84 Chlorodibromomethane	129		9.858				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.461				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.686				ND	
92 o-Xylene	106		11.069				ND	
93 Styrene	104		11.087				ND	
94 Bromoform	173		11.270				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D21.D

Injection Date: 11-Aug-2017 09:45:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-B-28

Lab Sample ID: 180-69061-28

Worklist Smp#: 21

Client ID: HD-MW-162-0/1-0

Purge Vol: 5.000 mL

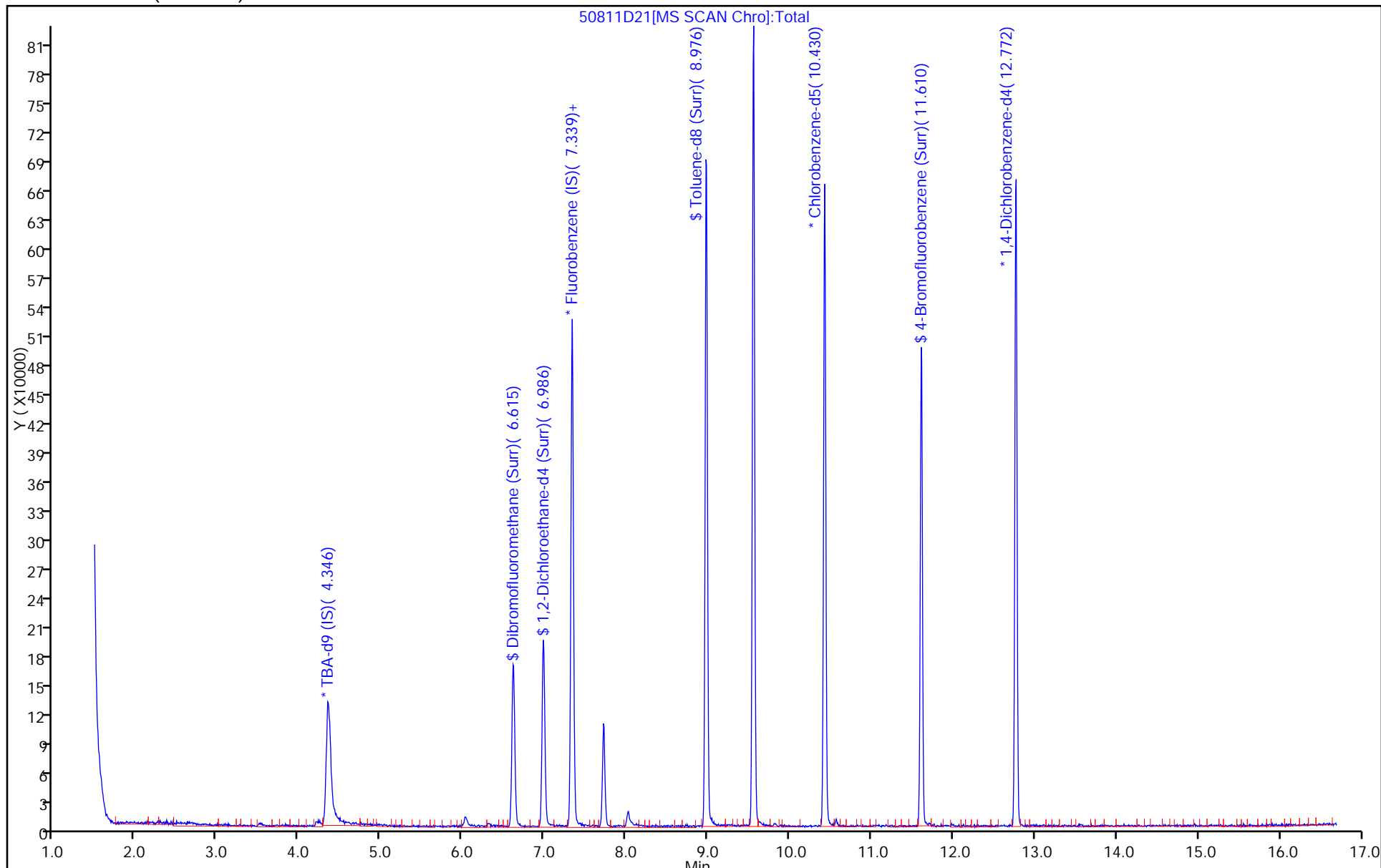
Dil. Factor: 20.0000

ALS Bottle#: 21

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D21.D  
 Lims ID: 180-69061-B-28  
 Client ID: HD-MW-162-0/1-0  
 Sample Type: Client  
 Inject. Date: 11-Aug-2017 09:45:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 20.0000  
 Sample Info: 180-0017984-021  
 Misc. Info.: 180-69061-B-28  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 14-Aug-2017 00:01:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.6	101.25
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.6	103.14
\$ 7 Toluene-d8 (Surr)	50.0	46.7	93.36
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.8	99.57

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D21.D

Injection Date: 11-Aug-2017 09:45:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-28

Lab Sample ID: 180-69061-28

Client ID: HD-MW-162-0/1-0

Operator ID: 034635

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 20.0000

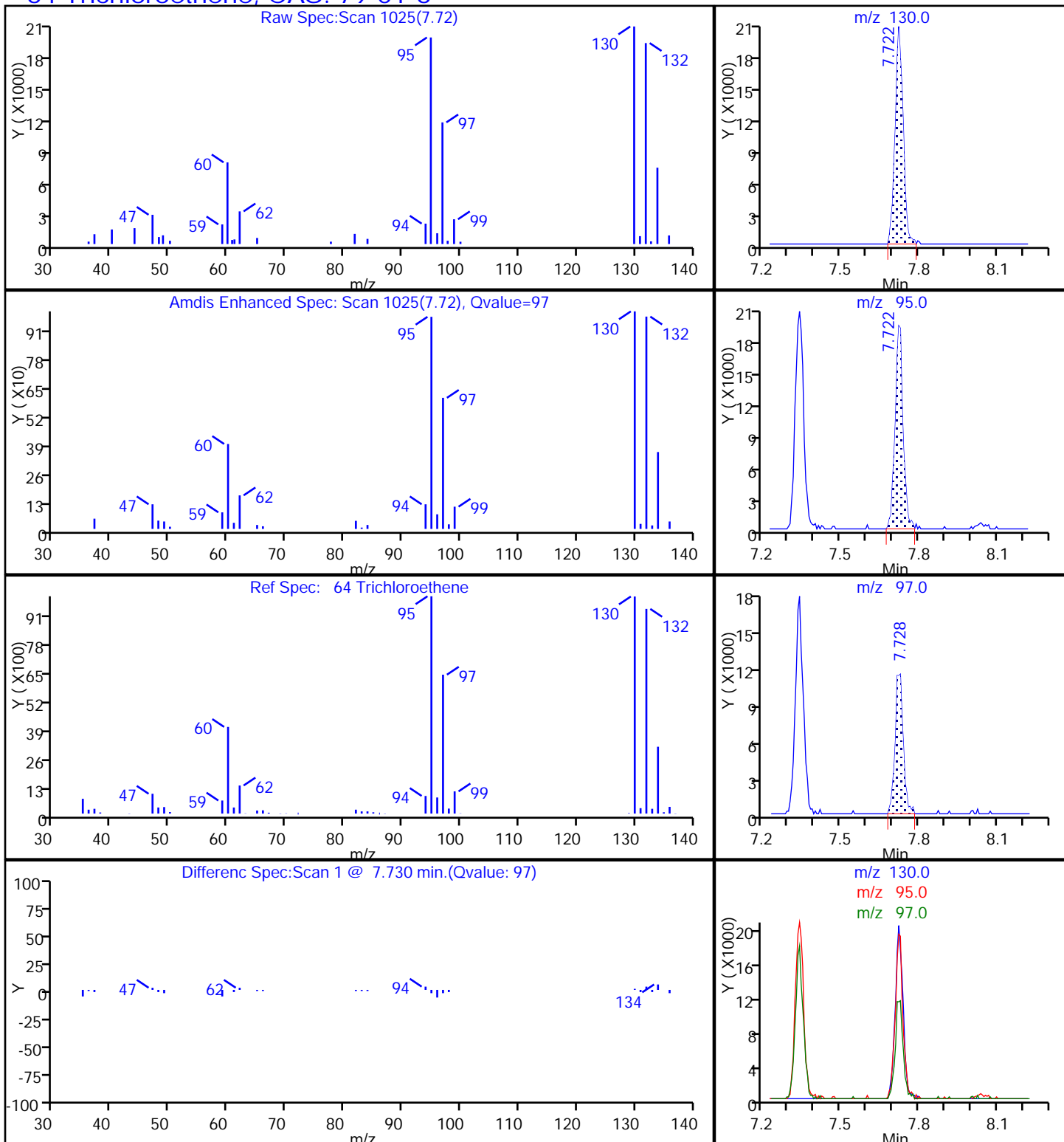
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D21.D

Injection Date: 11-Aug-2017 09:45:30

Instrument ID: CHHP5

Lims ID: 180-69061-B-28

Lab Sample ID: 180-69061-28

Client ID: HD-MW-162-0/1-0

Operator ID: 034635

ALS Bottle#: 21 Worklist Smp#: 21

Purge Vol: 5.000 mL

Dil. Factor: 20.0000

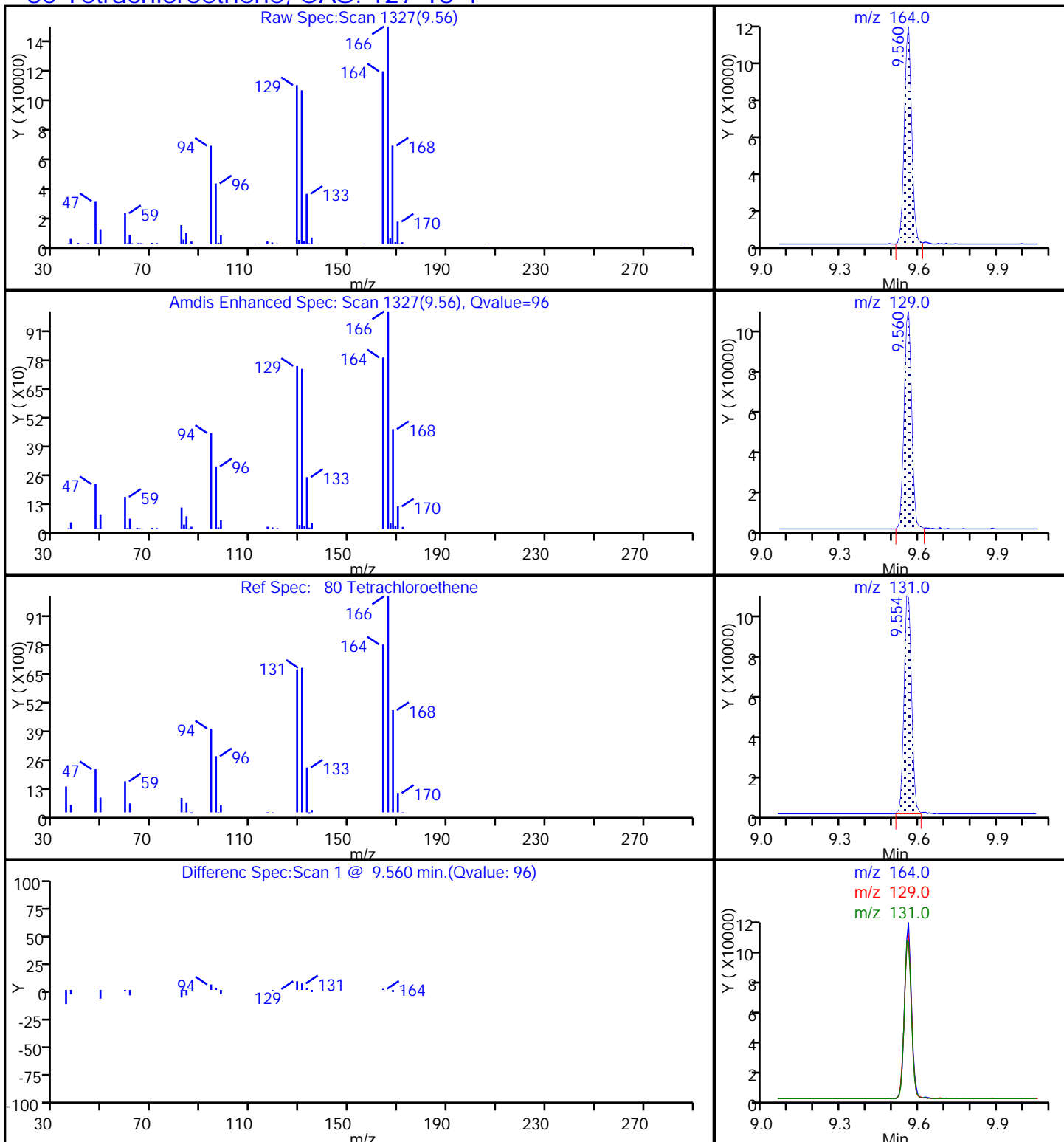
Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	0.3199 0.2630	0.2998 0.2481	0.2623 0.2360	0.2668	0.2713	Ave		0.2709		0.1000	10.0		20.0				
Chloromethane	0.5339 0.4231	0.4749 0.3901	0.4294 0.4063	0.4064	0.3994	Ave		0.4329		0.1000	11.2		20.0				
Vinyl chloride	0.3765 0.3484	0.3684 0.3223	0.3458 0.3349	0.3335	0.3366	Ave		0.3458		0.1000	5.3		20.0				
1,3-Butadiene	1.1481 0.2943	0.4022 0.2571	0.3212 0.2848	0.3203	0.3123	Lin2	4.4543	0.2516		0.0100				0.9940		0.9900	
Bromomethane	0.3406 0.1762	0.2260 0.1546	0.2007 ++++	0.1888	0.1946	Lin2	0.8402	0.1764		0.0500				0.9930		0.9900	
Chloroethane	0.3550 0.1960	0.2458 0.1882	0.2070 0.1750	0.2006	0.1880	Lin2	0.8604	0.1874		0.0500				0.9950		0.9900	
Trichlorofluoromethane	0.3439 0.3722	0.3730 0.3434	0.3694 0.3079	0.2877	0.3301	Ave		0.3410		0.1000	9.2		20.0				
Ethyl ether	0.3423 0.3452	0.3621 0.3312	0.3148 ++++	0.3184	0.2816	Ave		0.3279		0.0100	8.0		20.0				
Acrolein	0.0829 0.1252	0.1083 0.1156	0.0948 ++++	0.1045	0.1002	Ave		0.1045		0.0100	13.2		20.0				
1,1-Dichloroethene	0.3303 0.3241	0.3161 0.3180	0.2633 0.2587	0.2644	0.2656	Ave		0.2926		0.1000	10.9		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2013 0.2811	0.2506 0.2531	0.1991 0.2259	0.2482	0.2756	Ave		0.2418		0.1000	12.7		20.0				
Acetone	0.1502 0.2014	0.2734 0.1791	0.2794 0.1664	0.2182	0.2327	Qua	-0.832	0.2768	-0.000222	0.0500				0.9940		0.9900	
Iodomethane	0.4235 0.4696	0.4264 0.4504	0.4431 0.4074	0.4064	0.4394	Ave		0.4333		0.0100	5.0		20.0				
Carbon disulfide	0.8149 0.8297	0.9161 0.8014	0.8217 0.7057	0.7875	0.7932	Ave		0.8088		0.1000	7.2		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
Allyl chloride	0.2674 0.2459	0.2482 0.2521	0.2335 0.2294	0.2363	0.2311	Ave		0.2430			0.0100	5.3	20.0				
Methyl acetate	0.3574 0.3967	0.3868 0.4084	0.3831 0.3758	0.3517	0.3810	Ave		0.3801			0.1000	4.9	20.0				
Methylene Chloride	0.4086 0.3645	0.3541 0.3302	0.3495 0.3370	0.3082	0.3412	Ave		0.3492			0.1000	8.4	20.0				
tert-Butyl alcohol	1.2627 1.1711	1.2607 1.0667	1.2602 1.4216	1.1226	1.4152	Ave		1.2476			0.0100	10.2	20.0				
Acrylonitrile	0.1650 0.1859	0.1818 0.1700	0.1809 0.1747	0.1672	0.1781	Ave		0.1755			0.0100	4.3	20.0				
trans-1,2-Dichloroethene	0.4184 0.3463	0.3732 0.3084	0.3407 0.3166	0.3201	0.3338	Ave		0.3447			0.1000	10.5	20.0				
Methyl tert-butyl ether	1.0210 1.0868	1.1000 0.9915	1.0279 1.0229	0.9741	1.0517	Ave		1.0345			0.1000	4.2	20.0				
Hexane	0.7850 0.6099	0.6373 0.5236	0.5869 0.5421	0.5725	0.5884	Ave		0.6057			0.0100	13.3	20.0				
1,1-Dichloroethane	0.7190 0.6721	0.6657 0.6612	0.6329 0.6194	0.6025	0.6387	Ave		0.6514			0.2000	5.6	20.0				
Vinyl acetate	1.1098 0.9976	0.9568 0.9558	0.9133 0.9096	0.8775	0.8833	Ave		0.9505			0.0100	8.0	20.0				
2,2-Dichloropropane	0.0831 0.0896	0.1033 0.0829	0.0939 0.0757	0.0843	0.0850	Ave		0.0872			0.0100	9.6	20.0				
cis-1,2-Dichloroethene	0.4111 0.4015	0.3956 0.3809	0.3781 0.3751	0.3527	0.3749	Ave		0.3837			0.1000	4.8	20.0				
2-Butanone (MEK)	0.3335 0.3082	0.3892 0.2838	0.3832 0.2898	0.3056	0.3128	Ave		0.3258			0.0500	12.3	20.0				
Chlorobromomethane	0.1984 0.1762	0.1752 0.1694	0.1575 0.1641	0.1560	0.1579	Ave		0.1693			0.0100	8.3	20.0				
Tetrahydrofuran	0.2575 0.1715	0.1851 0.1646	0.1720 0.1593	0.1491	0.1639	Lin2	0.9851	0.1595			0.0100			0.9970		0.9900	
Chloroform	0.7032 0.5810	0.5892 0.5622	0.5593 0.5467	0.5219	0.5584	Ave		0.5777			0.2000	9.5	20.0				
1,1,1-Trichloroethane	0.5697 0.4711	0.5215 0.4342	0.4617 0.4180	0.4264	0.4434	Ave		0.4683			0.1000	11.2	20.0				
Cyclohexane	0.7676 0.7103	0.6962 0.6793	0.7164 0.6507	0.6544	0.7027	Ave		0.6972			0.1000	5.4	20.0				
Carbon tetrachloride	0.5294 0.4090	0.4138 0.3904	0.4041 0.3690	0.3791	0.3979	Ave		0.4116			0.1000	12.1	20.0				
1,1-Dichloropropene	0.5825 0.4986	0.5252 0.4741	0.4777 0.4463	0.4533	0.4801	Ave		0.4922			0.0100	9.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Isobutyl alcohol	0.0171 0.0183	0.0174 0.0171	0.0189 0.0165	0.0158	0.0175	Ave		0.0173			0.0100	5.6	20.0				
Benzene	1.6631 1.4390	1.5231 1.3858	1.4309 1.3143	1.3399	1.4060	Ave		1.4378			0.5000	7.7	20.0				
1,2-Dichloroethane	0.5247 0.4906	0.4855 0.4806	0.4505 0.4623	0.4307	0.4602	Ave		0.4731			0.1000	6.1	20.0				
n-Heptane	0.7069 0.5509	0.6041 0.5078	0.5263 0.4811	0.5165	0.5237	Ave		0.5522			0.0100	13.1	20.0				
Trichloroethene	0.3778 0.3653	0.3716 0.3449	0.3469 0.3351	0.3246	0.3495	Ave		0.3520			0.2000	5.2	20.0				
Methylcyclohexane	0.7275 0.6000	0.6392 0.5613	0.5846 0.5347	0.5626	0.5798	Ave		0.5987			0.1000	10.1	20.0				
1,2-Dichloropropane	0.4765 0.4004	0.4023 0.3975	0.3837 0.3837	0.3651	0.3888	Ave		0.3997			0.1000	8.3	20.0				
Dibromomethane	0.2531 0.2068	0.2082 0.2043	0.1974 0.1991	0.1836	0.1978	Ave		0.2063			0.0100	9.9	20.0				
1,4-Dioxane	0.0031 0.0040	0.0035 0.0040	0.0042 0.0038	0.0033	0.0039	Ave		0.0037	*		0.0100	10.4	20.0				
Dichlorobromomethane	0.4955 0.4516	0.4551 0.4423	0.4196 0.4177	0.4023	0.4154	Ave		0.4374			0.2000	6.9	20.0				
2-Chloroethyl vinyl ether	0.2660 0.2815	0.2789 0.2738	0.2757 0.2564	0.2501	0.2686	Ave		0.2689			0.0100	4.1	20.0				
cis-1,3-Dichloropropene	0.6488 0.6086	0.5805 0.5908	0.5708 0.5642	0.5405	0.5731	Ave		0.5847			0.2000	5.6	20.0				
4-Methyl-2-pentanone (MIBK)	2.4558 2.1071	2.4778 1.9046	2.4271 1.8398	2.1286	2.0777	Ave		2.1773			0.1000	11.5	20.0				
Toluene	7.3026 5.5445	6.5909 4.9431	6.1686 4.7522	5.6784	5.6514	Ave		5.8290			0.4000	14.4	20.0				
trans-1,3-Dichloropropene	2.3305 1.9502	2.0996 1.7965	2.0604 1.7476	1.8833	1.9320	Ave		1.9750			0.1000	9.4	20.0				
Ethyl methacrylate	2.4071 2.0664	2.2720 1.8833	2.2251 1.8377	2.0383	2.0575	Ave		2.0984			0.0100	9.2	20.0				
1,1,2-Trichloroethane	1.4077 1.1566	1.2736 1.0555	1.2268 1.0313	1.1158	1.1529	Ave		1.1775			0.1000	10.4	20.0				
Tetrachloroethene	1.2740 1.0928	1.2174 0.9795	1.1964 0.9543	1.1115	1.0919	Ave		1.1147			0.2000	10.0	20.0				
1,3-Dichloropropane	2.3403 2.0434	2.1972 1.8935	2.1730 1.8781	1.9972	2.0815	Ave		2.0755			0.0100	7.6	20.0				
2-Hexanone	1.7578 1.6139	2.0527 1.4084	2.1198 1.4320	1.7503	1.6920	Ave		1.7284			0.1000	14.9	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Chlorodibromomethane	1.3730	1.1788	1.1624	1.0909	1.1040	Ave		1.1414			0.1000	9.4	20.0				
	1.1411	1.0456	1.0356														
1,2-Dibromoethane	1.4318	1.2552	1.2115	1.0825	1.1373	Ave		1.1666			0.1000	11.2	20.0				
	1.1267	1.0486	1.0395														
3-Chlorobenzotrifluoride	2.2850	1.9284	2.0680	1.9964	2.0315	Ave		1.9942			0.0100	7.9	20.0				
	2.0264	1.8654	1.7526														
Chlorobenzene	4.5344	4.0390	3.9030	3.5698	3.5746	Ave		3.7064			0.5000	11.9	20.0				
	3.5864	3.2619	3.1817														
4-Chlorobenzotrifluoride	2.1870	1.8567	2.0112	1.8983	1.9288	Ave		1.9058			0.0100	8.1	20.0				
	1.9268	1.7683	1.6689														
1,1,1,2-Tetrachloroethane	1.4530	1.3644	1.2928	1.2293	1.2374	Ave		1.2600			0.0100	8.7	20.0				
	1.2426	1.1374	1.1227														
Ethylbenzene	2.4460	2.2844	2.1402	1.9780	1.9756	Ave		2.0449			0.1000	11.6	20.0				
	1.9988	1.7778	1.7581														
m-Xylene & p-Xylene	2.8416	2.7882	2.6228	2.4302	2.4516	Ave		2.5067			0.1000	9.2	20.0				
	2.4689	2.2350	2.2152														
o-Xylene	2.9758	2.7268	2.6092	2.3740	2.3806	Ave		2.4659			0.3000	11.8	20.0				
	2.3892	2.1471	2.1248														
Styrene	5.1502	4.5968	4.4042	4.0041	4.0665	Ave		4.1957			0.3000	12.1	20.0				
	4.0537	3.6854	3.6046														
Bromoform	0.9137	0.8794	0.8496	0.7575	0.7859	Ave		0.8110			0.1000	7.9	20.0				
	0.8120	0.7544	0.7358														
2-Chlorobenzotrifluoride	2.2731	2.0142	2.1312	1.9507	2.0083	Ave		1.9964			0.0100	8.1	20.0				
	2.0122	1.8184	1.7634														
Isopropylbenzene	7.5309	6.7921	6.4126	5.9295	5.9119	Ave		6.0491			0.1000	14.1	20.0				
	5.7370	5.1136	4.9650														
1,1,2,2-Tetrachloroethane	1.7904	1.7612	1.7754	1.4840	1.6093	Ave		1.6039			0.3000	9.6	20.0				
	1.5508	1.4525	1.4079														
Bromobenzene	1.1871	1.0774	1.0602	0.9857	1.0297	Ave		1.0470			0.0100	6.3	20.0				
	1.0370	1.0268	0.9720														
trans-1,4-Dichloro-2-butene	0.4791	0.4184	0.3948	0.3919	0.4105	Ave		0.4146			0.0100	7.0	20.0				
	0.4218	0.4140	0.3865														
1,2,3-Trichloropropane	0.4961	0.3625	0.3613	0.3503	0.3634	Lin2	0.7406	0.3459			0.0100			0.9990		0.9900	
	0.3592	0.3546	0.3402														
N-Propylbenzene	1.4987	1.2959	1.2109	1.1592	1.1887	Ave		1.2251			0.0100	10.1	20.0				
	1.1938	1.1525	1.1012														
2-Chlorotoluene	1.2394	1.1046	1.0145	0.9686	0.9937	Ave		1.0339			0.0100	9.3	20.0				
	1.0187	0.9971	0.9347														
3-Chlorotoluene	1.3182	1.0961	1.1052	1.0455	1.1344	Ave		1.1134			0.0100	8.2	20.0				
	1.1030	1.0915	1.0134														

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	4.3224 3.3609	3.8549 3.2632	3.5089 3.0428	3.3101	3.4291	Ave		3.5116			0.0100	11.4	20.0				
4-Chlorotoluene	1.2392 1.0946	1.1154 1.0496	1.0789 0.9974	1.0063	1.0297	Ave		1.0764			0.0100	7.2	20.0				
tert-Butylbenzene	3.9099 2.9167	3.2971 2.7996	3.0049 2.6126	2.8637	2.9496	Ave		3.0443			0.0100	13.1	20.0				
1,2,4-Trimethylbenzene	4.1588 3.4251	3.8782 3.3156	3.5916 3.1572	3.4230	3.5131	Ave		3.5578			0.0100	9.0	20.0				
3,4-Dichlorobenzotrifluoride	1.2210 1.0725	1.0292 1.0646	1.0277 0.9722	1.0422	1.0931	Ave		1.0653			0.0100	6.8	20.0				
sec-Butylbenzene	5.1843 3.9631	4.5180 3.7590	4.1605 3.5239	3.9708	4.0398	Ave		4.1399			0.0100	12.3	20.0				
1,3-Dichlorobenzene	2.2219 1.9195	2.0321 1.8789	1.9198 1.7872	1.8388	1.9058	Ave		1.9380			0.6000	7.0	20.0				
4-Isopropyltoluene	4.3477 3.4245	3.9082 3.2755	3.5910 3.0606	3.3943	3.5123	Ave		3.5643			0.0100	11.2	20.0				
1,4-Dichlorobenzene	2.4647 1.9410	2.0770 1.9276	1.9341 1.8210	1.8496	1.9407	Ave		1.9945			0.5000	10.3	20.0				
2,4-Dichlorobenzotrifluoride	1.1709 1.0021	0.9745 1.0124	0.9646 0.9384	0.9242	0.9808	Ave		0.9960			0.0100	7.7	20.0				
2,5-Dichlorobenzotrifluoride	1.1908 1.1134	1.0529 1.1140	1.1150 1.0288	1.1002	1.1669	Ave		1.1103			0.0100	4.8	20.0				
n-Butylbenzene	3.7433 2.9558	3.3120 2.8136	3.0832 2.6450	2.8947	2.9889	Ave		3.0546			0.0100	11.1	20.0				
1,2-Dichlorobenzene	2.1091 1.7777	1.8880 1.7602	1.8346 1.6965	1.6810	1.8187	Ave		1.8207			0.4000	7.4	20.0				
1,2-Dibromo-3-Chloropropane	0.4443 0.2406	0.2896 0.2431	0.2508 0.2272	0.2204	0.2445	Lin2	1.0832	0.2297			0.0500			0.9970		0.9900	
2,4- & 2,5- & 2,6- Dichlorotoluene	1.5315 1.2852	1.3266 1.2695	1.3666 1.2213	1.2547	1.3495	Ave		1.3256			0.0100	7.3	20.0				
2,3- & 3,4- Dichlorotoluene	1.6014 1.3728	1.4000 1.3470	1.4444 1.3238	1.2829	1.4149	Ave		1.3984			0.0100	6.9	20.0				
1,2,4-Trichlorobenzene	1.1876 1.0187	1.0450 1.0129	1.0547 1.0276	0.9306	1.0052	Ave		1.0353			0.2000	7.0	20.0				
Hexachlorobutadiene	0.5652 0.4450	0.4858 0.4183	0.4605 0.4239	0.4191	0.4429	Ave		0.4576			0.0100	10.7	20.0				
Naphthalene	3.5330 3.1945	3.3450 3.1455	3.5436 3.1415	2.9913	3.2803	Ave		3.2718			0.0100	5.9	20.0				
1,2,3-Trichlorobenzene	1.0464 0.9499	0.9770 0.9420	1.0045 0.9807	0.8498	0.9396	Ave		0.9612			0.0100	6.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.6574 0.5725	0.5797 0.5705	0.6475 0.5934	0.5310	0.6050	Ave		0.5946			0.0100	7.0		20.0			
2,3,6-Trichlorotoluene	0.6386 0.5150	0.5565 0.5187	0.5746 0.5306	0.4758	0.5243	Ave		0.5418			0.0100	9.0		20.0			
Dibromofluoromethane (Surr)	0.2634 0.2710	0.2611 0.2606	0.2576 0.2538	0.2314	0.2465	Ave		0.2557				4.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4074 0.3671	0.3594 0.3508	0.3527 0.3374	0.3161	0.3288	Ave		0.3525				7.9		20.0			
Toluene-d8 (Surr)	4.6005 3.9268	4.3324 3.5047	4.4344 3.4690	3.9285	3.8139	Ave		4.0013				10.5		20.0			
4-Bromofluorobenzene (Surr)	1.6759 1.6165	1.7074 1.4632	1.7129 1.4631	1.5340	1.5309	Ave		1.5880				6.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	11360 288265	48819 320286	90064 383674	146171	190995	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	18956 463847	77319 503528	147443 660580	222659	281148	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	13367 381880	59985 416057	118745 544552	182711	236967	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Lin2	40764 322594	65480 331808	110274 463060	175484	219867	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	12095 193127	36804 199546	68918 +++++	103436	137007	5.00 175	25.0 200	50.0 +++++	75.0	100
Chloroethane	FB	Lin2	12605 214850	40020 242959	71071 284483	109878	132369	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	12211 407996	60735 443285	126846 500610	157636	232367	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	12154 378438	58960 427535	108085 +++++	174419	198208	5.00 175	25.0 200	50.0 +++++	75.0	100
Acrolein	FB	Ave	58864 176433	88139 186572	97603 +++++	133597	141135	100 225	125 250	150 +++++	175	200
1,1-Dichloroethene	FB	Ave	11729 355274	51467 410531	90421 420571	144859	186952	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7147 308123	40795 326722	68361 367239	135965	194019	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Qua	26673 441614	89042 462297	191862 540944	239078	327588	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	15037 514836	69421 581438	152131 662319	222629	309287	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	28932 909550	149164 1034498	282135 1147403	431464	558362	5.00 175	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	9494 269538	40410 325365	80183 373044	129444	162702	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	25380 869695	125959 1054265	263099 1222074	385350	536456	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Ave	14508 399535	57651 426256	120006 547979	168850	240190	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd 9	Ave	10951 504751	59104 469244	167444 800812	223746	279075	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	58589 2037753	296073 2193876	621223 2839818	916220	1254097	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	14857 379604	60758 398038	116991 514686	175351	235005	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	36251 1191395	179109 1279855	352917 1662995	533673	740346	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	27872 668602	103760 675938	201514 881434	313674	414201	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	25529 736757	108391 853476	217303 1006985	330111	449645	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	39405 1093622	155793 1233778	313586 1478910	480729	621774	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	2952 98205	16827 106967	32248 123055	46205	59858	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	14596 440120	64409 491702	129830 609918	193227	263920	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	59203 675747	126726 732742	263149 942332	334832	440384	25.0 350	50.0 400	100 500	150	200
Chlorobromomethane	FB	Ave	7043 193171	28527 218627	54076 266776	85492	111165	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Lin2	18282 375950	60280 424882	118128 517849	163375	230737	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	24968 636895	95932 725704	192042 888887	285922	393090	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20227 516491	84914 560443	158536 679603	233627	312138	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	27256 778625	113357 876870	245975 1057958	358503	494683	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	18796 448401	67382 503927	138765 600003	207671	280114	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	20683 546560	85510 612031	164019 725621	248344	338006	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	15152 500943	71001 553306	162229 670610	215962	308653	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	59050 1577529	247989 1788795	491290 2136842	734073	989799	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
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RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	18629 537767	79055 620368	154690 751563	235973	323970	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	25099 603889	98365 655443	180722 782163	282966	368639	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	13413 400484	60499 445239	119100 544845	177850	246005	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25831 657704	104066 724486	200723 869390	308209	408182	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16918 438885	65502 513159	131736 623779	200014	273710	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	8987 226707	33894 263730	67786 323707	100567	139250	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2229 88641	11481 104236	28838 125075	35832	54731	100 3500	500 4000	1000 5000	1500	2000
Dichlorobromomethane	FB	Ave	17592 495018	74099 570917	144075 679054	220386	292391	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18887 617167	90813 706913	189337 833749	274054	378146	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	23035 667160	94517 762600	195974 917359	296141	403451	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	108520 1277910	201052 1449023	408149 1715061	585317	771359	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	64538 1681283	267398 1880344	518665 2215068	780737	1049056	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	20596 591362	85181 683392	173242 814568	258935	358629	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	21273 626604	92176 716406	187087 856567	280255	381934	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	12441 350713	51670 401520	103149 480707	153411	214004	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	11259 331372	49391 372604	100597 444805	152819	202692	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	20683 619625	89143 720290	182710 875399	274592	386392	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	77674 978798	166556 1071544	356470 1334896	481301	628179	25.0 350	50.0 400	100 500	150	200
Chlorodibromomethane	CBNZ d5	Ave	12134 346026	47826 397752	97738 482702	149990	204939	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane	CBNZ d5	Ave	12654 341661	50923 398884	101860 484529	148835	211108	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	20194 614470	78236 709603	173880 816927	274484	377102	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	40074 1087528	163865 1240825	328169 1483014	490822	663544	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	19328 584269	75328 672658	169101 777912	260997	358041	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12841 376787	55355 432680	108701 523309	169025	229696	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	21617 606102	92680 676281	179947 819458	271964	366730	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25113 748663	113117 850193	220525 1032506	334134	455089	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	26299 724488	110628 816773	219383 990376	326410	441909	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	45516 1229204	186493 1401938	370310 1680161	550534	754852	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	8075 246235	35678 286980	71432 342951	104149	145882	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	20089 610154	81717 691733	179192 821958	268204	372804	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	66556 1739655	275560 1945195	539180 2314258	815253	1097412	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	15823 470241	71451 552518	149279 656224	204042	298732	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	14390 437254	62935 504414	132180 616854	192570	266448	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	5807 177867	24438 203354	49225 245313	76568	106219	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Lin2	6014 151444	21177 174213	45049 215879	68430	94031	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	18166 503370	75699 566124	150964 698892	226484	307590	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	15023 429562	64522 489826	126477 593228	189243	257123	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	15979 465106	64028 536156	137789 643177	204267	293533	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	52394 1417182	225181 1602983	437477 1931146	646696	887312	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	15021 461546	65156 515598	134516 633000	196596	266448	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	47394 1229844	192596 1375238	374641 1658088	559488	763225	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50411 1444257	226542 1628727	447784 2003753	668751	909030	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
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RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	14800 452248	60123 522959	128125 617023	203613	282839	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	62841 1671080	263915 1846550	518713 2236454	775789	1045329	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	26933 809393	118704 922963	239355 1134229	359242	493151	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	52701 1443989	228298 1609019	447713 1942455	663144	908837	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	29876 818434	121326 946901	241133 1155724	361359	502172	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	14193 422533	56924 497310	120263 595571	180562	253790	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	14434 469476	61504 547248	139012 652964	214948	301944	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	45375 1246354	193470 1382118	384393 1678668	565547	773393	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	25566 749586	110285 864638	228728 1076711	328411	470610	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin2	5385 101450	16918 119400	31264 144187	43060	63264	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	55694 1625773	232473 1870903	511161 2325266	735393	1047544	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	38823 1157680	163558 1323377	360161 1680279	501273	732216	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	14395 429547	61041 497586	131499 652178	181806	260096	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	6851 187630	28379 205503	57408 269040	81879	114595	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	42825 1347013	195394 1545157	441802 1993798	584418	848811	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	12684 400531	57072 462732	125237 622398	166025	243122	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	7969 241394	33861 280260	80722 376576	103751	156547	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	7741 217169	32510 254778	71633 336770	92963	135667	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9352 297108	42506 336435	88453 412655	126785	173538	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	14465 402465	58513 452860	121114 548631	173185	231495	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	40658 1190748	175766 1333199	372845 1616941	540141	707972	5.00 175	25.0 200	50.0 250	75.0	100



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	14811 490170	69269 556606	144024 681987	210916	284175	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD  
Lin2 = Linear 1/conc^2 ISTD  
Qua = Quadratic ISTD

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Dichlorodifluoromethane	18.1	10.7	-3.2	-1.5	0.1	-2.9	50	50	50	50	50	50
	-8.4	-12.9					50	50				
Chloromethane	23.3	9.7	-0.8	-6.1	-7.8	-2.3	50	50	50	50	50	50
	-9.9	-6.2					50	50				
Vinyl chloride	8.9	6.5	0.0	-3.6	-2.7	0.7	50	50	50	50	50	50
	-6.8	-3.1					50	50				
1,3-Butadiene	2.2	-11.0	-7.7	3.7	6.4	6.9	50	50	50	50	50	50
	-6.7	6.1					50	50				
Bromomethane	-2.1	9.1	4.3	0.7	5.6	-2.8	50	50	50	50	50	50
	-14.7	++++					50					
Chloroethane	-2.4	12.8	1.3	0.9	-4.2	2.0	50	50	50	50	50	50
	-1.9	-8.5					50	50				
Trichlorofluoromethane	0.9	9.4	8.4	-15.6	-3.2	9.2	50	50	50	50	50	50
	0.7	-9.7					50	50				
Ethyl ether	4.4	10.4	-4.0	-2.9	-14.1	5.3	50	50	50	50	50	50
	1.0	++++					50					
Acrolein	-20.7	3.6	-9.3	0.0	-4.1	19.8	50	50	50	50	50	50
	10.7	++++					50					
1,1-Dichloroethene	12.9	8.0	-10.0	-9.6	-9.2	10.8	50	50	50	50	50	50
	8.7	-11.6					50	50				
1,1,2-Trichloro-1,2,2-trifluoroethane	-16.8	3.6	-17.7	2.6	14.0	16.2	50	50	50	50	50	50
	4.7	-6.6					50	50				
Acetone	-32.8	9.6	14.4	-9.3	2.3	3.8	50	50	50	50	50	50
	-6.7	4.0					50	50				
Iodomethane	-2.3	-1.6	2.3	-6.2	1.4	8.4	50	50	50	50	50	50
	4.0	-6.0					50	50				
Carbon disulfide	0.8	13.3	1.6	-2.6	-1.9	2.6	50	50	50	50	50	50
	-0.9	-12.7					50	50				
Allyl chloride	10.0	2.1	-3.9	-2.8	-4.9	1.2	50	50	50	50	50	50
	3.7	-5.6					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methyl acetate	-6.0	1.8	0.8	-7.5	0.2	4.4	50	50	50	50	50	50
	7.4	-1.1					50	50				
Methylene Chloride	17.0	1.4	0.1	-11.7	-2.3	4.4	50	50	50	50	50	50
	-5.4	-3.5					50	50				
tert-Butyl alcohol	1.2	1.1	1.0	-10.0	13.4	-6.1	50	50	50	50	50	50
	-14.5	13.9					50	50				
Acrylonitrile	-6.0	3.6	3.1	-4.7	1.5	5.9	50	50	50	50	50	50
	-3.1	-0.5					50	50				
trans-1,2-Dichloroethene	21.4	8.3	-1.1	-7.1	-3.1	0.5	50	50	50	50	50	50
	-10.5	-8.2					50	50				
Methyl tert-butyl ether	-1.3	6.3	-0.6	-5.8	1.7	5.1	50	50	50	50	50	50
	-4.2	-1.1					50	50				
Hexane	29.6	5.2	-3.1	-5.5	-2.9	0.7	50	50	50	50	50	50
	-13.5	-10.5					50	50				
1,1-Dichloroethane	10.4	2.2	-2.8	-7.5	-1.9	3.2	50	50	50	50	50	50
	1.5	-4.9					50	50				
Vinyl acetate	16.8	0.7	-3.9	-7.7	-7.1	5.0	50	50	50	50	50	50
	0.6	-4.3					50	50				
2,2-Dichloropropane	-4.7	18.5	7.7	-3.3	-2.5	2.7	50	50	50	50	50	50
	-5.0	-13.2					50	50				
cis-1,2-Dichloroethene	7.1	3.1	-1.5	-8.1	-2.3	4.6	50	50	50	50	50	50
	-0.7	-2.2					50	50				
2-Butanone (MEK)	2.4	19.5	17.6	-6.2	-4.0	-5.4	50	50	50	50	50	50
	-12.9	-11.0					50	50				
Chlorobromomethane	17.1	3.5	-7.0	-7.8	-6.7	4.1	50	50	50	50	50	50
	0.0	-3.1					50	50				
Tetrahydrofuran	-0.4	3.7	1.7	-10.6	-0.3	5.7	50	50	50	50	50	50
	1.6	-1.4					50	50				
Chloroform	21.7	2.0	-3.2	-9.7	-3.3	0.6	50	50	50	50	50	50
	-2.7	-5.4					50	50				
1,1,1-Trichloroethane	21.7	11.4	-1.4	-8.9	-5.3	0.6	50	50	50	50	50	50
	-7.3	-10.7					50	50				
Cyclohexane	10.1	-0.1	2.8	-6.1	0.8	1.9	50	50	50	50	50	50
	-2.6	-6.7					50	50				
Carbon tetrachloride	28.6	0.5	-1.8	-7.9	-3.3	-0.6	50	50	50	50	50	50
	-5.2	-10.3					50	50				
1,1-Dichloropropene	18.3	6.7	-3.0	-7.9	-2.5	1.3	50	50	50	50	50	50
	-3.7	-9.3					50	50				
Isobutyl alcohol	-1.5	0.7	9.1	-9.0	1.2	5.5	50	50	50	50	50	50
	-1.1	-4.8					50	50				
Benzene	15.7	5.9	-0.5	-6.8	-2.2	0.1	50	50	50	50	50	50
	-3.6	-8.6					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
1,2-Dichloroethane	10.9	2.6	-4.8	-9.0	-2.7	3.7	50	50	50	50	50	50
	1.6	-2.3					50	50				
n-Heptane	28.0	9.4	-4.7	-6.5	-5.2	-0.2	50	50	50	50	50	50
	-8.0	-12.9					50	50				
Trichloroethene	7.3	5.6	-1.4	-7.8	-0.7	3.8	50	50	50	50	50	50
	-2.0	-4.8					50	50				
Methylcyclohexane	21.5	6.8	-2.4	-6.0	-3.2	0.2	50	50	50	50	50	50
	-6.3	-10.7					50	50				
1,2-Dichloropropane	19.2	0.6	-4.0	-8.7	-2.7	0.2	50	50	50	50	50	50
	-0.5	-4.0					50	50				
Dibromomethane	22.7	0.9	-4.3	-11.0	-4.1	0.3	50	50	50	50	50	50
	-1.0	-3.5					50	50				
1,4-Dioxane	-16.2	-5.8	12.2	-12.6	3.8	8.0	50	50	50	50	50	50
	7.9	2.7					50	50				
Dichlorobromomethane	13.3	4.0	-4.1	-8.0	-5.0	3.2	50	50	50	50	50	50
	1.1	-4.5					50	50				
2-Chloroethyl vinyl ether	-1.1	3.7	2.5	-7.0	-0.1	4.7	50	50	50	50	50	50
	1.8	-4.6					50	50				
cis-1,3-Dichloropropene	11.0	-0.7	-2.4	-7.5	-2.0	4.1	50	50	50	50	50	50
	1.0	-3.5					50	50				
4-Methyl-2-pentanone (MIBK)	12.8	13.8	11.5	-2.2	-4.6	-3.2	50	50	50	50	50	50
	-12.5	-15.5					50	50				
Toluene	25.3	13.1	5.8	-2.6	-3.0	-4.9	50	50	50	50	50	50
	-15.2	-18.5					50	50				
trans-1,3-Dichloropropene	18.0	6.3	4.3	-4.6	-2.2	-1.3	50	50	50	50	50	50
	-9.0	-11.5					50	50				
Ethyl methacrylate	14.7	8.3	6.0	-2.9	-1.9	-1.5	50	50	50	50	50	50
	-10.3	-12.4					50	50				
1,1,2-Trichloroethane	19.5	8.2	4.2	-5.2	-2.1	-1.8	50	50	50	50	50	50
	-10.4	-12.4					50	50				
Tetrachloroethene	14.3	9.2	7.3	-0.3	-2.0	-2.0	50	50	50	50	50	50
	-12.1	-14.4					50	50				
1,3-Dichloropropane	12.8	5.9	4.7	-3.8	0.3	-1.5	50	50	50	50	50	50
	-8.8	-9.5					50	50				
2-Hexanone	1.7	18.8	22.6	1.3	-2.1	-6.6	50	50	50	50	50	50
	-18.5	-17.1					50	50				
Chlorodibromomethane	20.3	3.3	1.8	-4.4	-3.3	0.0	50	50	50	50	50	50
	-8.4	-9.3					50	50				
1,2-Dibromoethane	22.7	7.6	3.8	-7.2	-2.5	-3.4	50	50	50	50	50	50
	-10.1	-10.9					50	50				
3-Chlorobenzotrifluoride	14.6	-3.3	3.7	0.1	1.9	1.6	50	50	50	50	50	50
	-6.5	-12.1					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Chlorobenzene	22.3	9.0	5.3	-3.7	-3.6	-3.2	50	50	50	50	50	50
	-12.0	-14.2					50	50				
4-Chlorobenzotrifluoride	14.8	-2.6	5.5	-0.4	1.2	1.1	50	50	50	50	50	50
	-7.2	-12.4					50	50				
1,1,1,2-Tetrachloroethane	15.3	8.3	2.6	-2.4	-1.8	-1.4	50	50	50	50	50	50
	-9.7	-10.9					50	50				
Ethylbenzene	19.6	11.7	4.7	-3.3	-3.4	-2.3	50	50	50	50	50	50
	-13.1	-14.0					50	50				
m-Xylene & p-Xylene	13.4	11.2	4.6	-3.1	-2.2	-1.5	50	50	50	50	50	50
	-10.8	-11.6					50	50				
o-Xylene	20.7	10.6	5.8	-3.7	-3.5	-3.1	50	50	50	50	50	50
	-12.9	-13.8					50	50				
Styrene	22.7	9.6	5.0	-4.6	-3.1	-3.4	50	50	50	50	50	50
	-12.2	-14.1					50	50				
Bromoform	12.7	8.4	4.8	-6.6	-3.1	0.1	50	50	50	50	50	50
	-7.0	-9.3					50	50				
2-Chlorobenzotrifluoride	13.9	0.9	6.7	-2.3	0.6	0.8	50	50	50	50	50	50
	-8.9	-11.7					50	50				
Isopropylbenzene	24.5	12.3	6.0	-2.0	-2.3	-5.2	50	50	50	50	50	50
	-15.5	-17.9					50	50				
1,1,2,2-Tetrachloroethane	11.6	9.8	10.7	-7.5	0.3	-3.3	50	50	50	50	50	50
	-9.4	-12.2					50	50				
Bromobenzene	13.4	2.9	1.3	-5.9	-1.6	-1.0	50	50	50	50	50	50
	-1.9	-7.2					50	50				
trans-1,4-Dichloro-2-butene	15.5	0.9	-4.8	-5.5	-1.0	1.7	50	50	50	50	50	50
	-0.2	-6.8					50	50				
1,2,3-Trichloropropane	0.6	-3.7	0.2	-1.6	2.9	2.6	50	50	50	50	50	50
	1.5	-2.5					50	50				
N-Propylbenzene	22.3	5.8	-1.2	-5.4	-3.0	-2.6	50	50	50	50	50	50
	-5.9	-10.1					50	50				
2-Chlorotoluene	19.9	6.8	-1.9	-6.3	-3.9	-1.5	50	50	50	50	50	50
	-3.6	-9.6					50	50				
3-Chlorotoluene	18.4	-1.6	-0.7	-6.1	1.9	-0.9	50	50	50	50	50	50
	-2.0	-9.0					50	50				
1,3,5-Trimethylbenzene	23.1	9.8	-0.1	-5.7	-2.3	-4.3	50	50	50	50	50	50
	-7.1	-13.3					50	50				
4-Chlorotoluene	15.1	3.6	0.2	-6.5	-4.3	1.7	50	50	50	50	50	50
	-2.5	-7.3					50	50				
tert-Butylbenzene	28.4	8.3	-1.3	-5.9	-3.1	-4.2	50	50	50	50	50	50
	-8.0	-14.2					50	50				
1,2,4-Trimethylbenzene	16.9	9.0	0.9	-3.8	-1.3	-3.7	50	50	50	50	50	50
	-6.8	-11.3					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
3,4-Dichlorobenzotrifluoride	14.6	-3.4	-3.5	-2.2	2.6	0.7	50	50	50	50	50	50
	-0.1	-8.7					50	50				
sec-Butylbenzene	25.2	9.1	0.5	-4.1	-2.4	-4.3	50	50	50	50	50	50
	-9.2	-14.9					50	50				
1,3-Dichlorobenzene	14.6	4.9	-0.9	-5.1	-1.7	-1.0	50	50	50	50	50	50
	-3.1	-7.8					50	50				
4-Isopropyltoluene	22.0	9.7	0.8	-4.8	-1.5	-3.9	50	50	50	50	50	50
	-8.1	-14.1					50	50				
1,4-Dichlorobenzene	23.6	4.1	-3.0	-7.3	-2.7	-2.7	50	50	50	50	50	50
	-3.4	-8.7					50	50				
2,4-Dichlorobenzotrifluoride	17.6	-2.2	-3.1	-7.2	-1.5	0.6	50	50	50	50	50	50
	1.6	-5.8					50	50				
2,5-Dichlorobenzotrifluoride	7.3	-5.2	0.4	-0.9	5.1	0.3	50	50	50	50	50	50
	0.3	-7.3					50	50				
n-Butylbenzene	22.5	8.4	0.9	-5.2	-2.2	-3.2	50	50	50	50	50	50
	-7.9	-13.4					50	50				
1,2-Dichlorobenzene	15.8	3.7	0.8	-7.7	-0.1	-2.4	50	50	50	50	50	50
	-3.3	-6.8					50	50				
1,2-Dibromo-3-Chloropropane	-0.9	7.2	-0.3	-10.3	1.7	2.1	50	50	50	50	50	50
	3.5	-3.0					50	50				
2,4- & 2,5- & 2,6- Dichlorotoluene	15.5	0.1	3.1	-5.4	1.8	-3.0	50	50	50	50	50	50
	-4.2	-7.9					50	50				
2,3- & 3,4- Dichlorotoluene	14.5	0.1	3.3	-8.3	1.2	-1.8	50	50	50	50	50	50
	-3.7	-5.3					50	50				
1,2,4-Trichlorobenzene	14.7	0.9	1.9	-10.1	-2.9	-1.6	50	50	50	50	50	50
	-2.2	-0.7					50	50				
Hexachlorobutadiene	23.5	6.2	0.6	-8.4	-3.2	-2.8	50	50	50	50	50	50
	-8.6	-7.4					50	50				
Naphthalene	8.0	2.2	8.3	-8.6	0.3	-2.4	50	50	50	50	50	50
	-3.9	-4.0					50	50				
1,2,3-Trichlorobenzene	8.9	1.6	4.5	-11.6	-2.3	-1.2	50	50	50	50	50	50
	-2.0	2.0					50	50				
2,4,5-Trichlorotoluene	10.6	-2.5	8.9	-10.7	1.7	-3.7	50	50	50	50	50	50
	-4.1	-0.2					50	50				
2,3,6-Trichlorotoluene	17.9	2.7	6.1	-12.2	-3.2	-4.9	50	50	50	50	50	50
	-4.3	-2.1					50	50				
Dibromofluoromethane (Surr)	3.0	2.1	0.8	-9.5	-3.6	6.0	50	50	50	50	50	50
	1.9	-0.7					50	50				
1,2-Dichloroethane-d4 (Surr)	15.6	2.0	0.1	-10.3	-6.7	4.2	50	50	50	50	50	50
	-0.5	-4.3					50	50				
Toluene-d8 (Surr)	15.0	8.3	10.8	-1.8	-4.7	-1.9	50	50	50	50	50	50
	-12.4	-13.3					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 213537

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
4-Bromofluorobenzene (Surr)	5.5	7.5	7.9	-3.4	-3.6	1.8	50	50	50	50	50	50
	-7.9	-7.9					50	50				

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 08-Jun-2017 06:03:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-002  
 Misc. Info.: IC VSTD1  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:51:55 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:26:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.342	4.335	0.007	0	173448	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.335	0.000	98	355058	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.438	10.431	0.007	88	88377	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.780	12.779	0.001	96	121215	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.611	6.613	-0.002	91	9352	5.00	5.15	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	7.110	-0.128	0	14465	5.00	5.78	
\$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	93	40658	5.00	5.75	
\$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.618	0.000	87	14811	5.00	5.28	
11 Dichlorodifluoromethane	85	1.629	1.619	0.010	74	11360	5.00	5.91	
12 Chloromethane	50	1.824	1.826	-0.002	63	18956	5.00	6.17	M
13 Vinyl chloride	62	1.933	1.947	-0.014	75	13367	5.00	5.44	
14 Butadiene	39	1.970	1.972	-0.002	61	40764	5.00	5.11	M
15 Bromomethane	94	2.347	2.318	0.029	40	12095	5.00	4.89	
16 Chloroethane	64	2.450	2.446	0.004	62	12605	5.00	4.88	
18 Trichlorofluoromethane	101	2.724	2.720	0.004	75	12211	5.00	5.04	
17 Dichlorofluoromethane	67	2.718	2.726	-0.008	84	36251	5.00	4.98	
20 Ethyl ether	59	3.119	3.109	0.010	91	12154	5.00	5.22	
21 Acrolein	56	3.296	3.304	-0.008	100	58864	100.0	79.3	
22 1,1-Dichloroethene	96	3.399	3.413	-0.014	73	11729	5.00	5.65	
23 1,1,2-Trichloro-1,2,2-trif	101	3.478	3.462	0.016	40	7147	5.00	4.16	
24 Acetone	43	3.509	3.511	-0.002	96	26673	25.0	16.8	
25 Iodomethane	142	3.612	3.602	0.010	94	15037	5.00	4.89	
26 Carbon disulfide	76	3.691	3.693	-0.002	96	28932	5.00	5.04	
28 3-Chloro-1-propene	76	3.995	3.991	0.004	92	9494	5.00	5.50	
30 Methyl acetate	43	4.020	4.022	-0.002	97	25380	10.0	9.40	
31 Methylene Chloride	84	4.220	4.216	0.004	81	14508	5.00	5.85	
32 2-Methyl-2-propanol	59	4.470	4.478	-0.008	55	10951	50.0	50.6	
33 Acrylonitrile	53	4.604	4.594	0.010	100	58589	50.0	47.0	
34 trans-1,2-Dichloroethene	96	4.622	4.630	-0.008	97	14857	5.00	6.07	
35 Methyl tert-butyl ether	73	4.640	4.648	-0.008	96	36251	5.00	4.93	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.042	5.044	-0.002	92	27872	5.00	6.48	
37 1,1-Dichloroethane	63	5.255	5.257	-0.002	96	25529	5.00	5.52	
38 Vinyl acetate	43	5.309	5.311	-0.002	97	39405	5.00	5.84	
44 2,2-Dichloropropane	97	5.997	5.999	-0.002	45	2952	5.00	4.77	
45 cis-1,2-Dichloroethene	96	5.997	6.005	-0.008	85	14596	5.00	5.36	
46 2-Butanone (MEK)	43	6.015	6.023	-0.008	99	59203	25.0	25.6	
49 Chlorobromomethane	128	6.289	6.279	0.010	93	7043	5.00	5.86	
51 Tetrahydrofuran	42	6.313	6.303	0.010	69	18282	10.0	9.96	
52 Chloroform	83	6.435	6.431	0.004	95	24968	5.00	6.09	
53 1,1,1-Trichloroethane	97	6.587	6.589	-0.002	97	20227	5.00	6.08	
54 Cyclohexane	56	6.660	6.656	0.004	91	27256	5.00	5.51	
56 Carbon tetrachloride	117	6.751	6.759	-0.008	92	18796	5.00	6.43	
55 1,1-Dichloropropene	75	6.769	6.777	-0.008	92	20683	5.00	5.92	
57 Isobutyl alcohol	41	6.976	6.978	-0.002	57	15152	125.0	123.1	
58 Benzene	78	6.988	6.990	-0.002	97	59050	5.00	5.78	
59 1,2-Dichloroethane	62	7.068	7.069	-0.001	96	18629	5.00	5.54	
62 n-Heptane	43	7.347	7.349	-0.002	44	25099	5.00	6.40	
64 Trichloroethene	130	7.718	7.720	-0.002	96	13413	5.00	5.37	
66 Methylcyclohexane	83	7.956	7.958	-0.002	92	25831	5.00	6.08	
67 1,2-Dichloropropane	63	7.992	7.994	-0.002	90	16918	5.00	5.96	
68 Dibromomethane	93	8.077	8.079	-0.002	88	8987	5.00	6.13	
70 1,4-Dioxane	88	8.096	8.085	0.011	45	2229	100.0	83.8	
71 Dichlorobromomethane	83	8.278	8.274	0.004	97	17592	5.00	5.66	
73 2-Chloroethyl vinyl ether	63	8.582	8.578	0.004	93	18887	10.0	9.89	
74 cis-1,3-Dichloropropene	75	8.716	8.718	-0.002	89	23035	5.00	5.55	
75 4-Methyl-2-pentanone (MIBK)	43	8.874	8.876	-0.002	98	108520	25.0	28.2	
76 Toluene	91	9.051	9.047	0.004	96	64538	5.00	6.26	
77 trans-1,3-Dichloropropene	75	9.300	9.296	0.004	96	20596	5.00	5.90	
78 Ethyl methacrylate	69	9.361	9.357	0.004	96	21273	5.00	5.74	
79 1,1,2-Trichloroethane	97	9.495	9.491	0.004	84	12441	5.00	5.98	
80 Tetrachloroethene	164	9.568	9.564	0.004	93	11259	5.00	5.71	
81 1,3-Dichloropropane	76	9.653	9.649	0.004	98	20683	5.00	5.64	
82 2-Hexanone	43	9.708	9.710	-0.002	98	77674	25.0	25.4	
84 Chlorodibromomethane	129	9.860	9.862	-0.002	89	12134	5.00	6.01	
85 Ethylene Dibromide	107	9.975	9.977	-0.002	92	12654	5.00	6.14	
86 3-Chlorobenzotrifluoride	180	10.432	10.434	-0.002	56	20194	5.00	5.73	
87 Chlorobenzene	112	10.462	10.464	-0.002	94	40074	5.00	6.12	
88 4-Chlorobenzotrifluoride	180	10.523	10.525	-0.002	94	19328	5.00	5.74	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.555	-0.002	41	12841	5.00	5.77	
90 Ethylbenzene	106	10.566	10.561	0.005	99	21617	5.00	5.98	
91 m-Xylene & p-Xylene	106	10.693	10.695	-0.002	0	25113	5.00	5.67	
92 o-Xylene	106	11.077	11.072	0.004	97	26299	5.00	6.03	
93 Styrene	104	11.095	11.097	-0.002	97	45516	5.00	6.14	
94 Bromoform	173	11.277	11.279	-0.002	80	8075	5.00	5.63	
96 2-Chlorobenzotrifluoride	180	11.350	11.346	0.004	95	20089	5.00	5.69	
97 Isopropylbenzene	105	11.442	11.443	-0.001	95	66556	5.00	6.22	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.754	-0.002	78	15823	5.00	5.58	
100 Bromobenzene	156	11.758	11.754	0.004	97	14390	5.00	5.67	
102 trans-1,4-Dichloro-2-buten	53	11.788	11.790	-0.002	71	5807	5.00	5.78	
101 1,2,3-Trichloropropane	110	11.819	11.809	0.011	81	6014	5.00	5.03	
103 N-Propylbenzene	120	11.861	11.863	-0.002	99	18166	5.00	6.12	
104 2-Chlorotoluene	126	11.946	11.948	-0.002	96	15023	5.00	5.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.007	12.009	-0.002	96	15979	5.00	5.92	
106 1,3,5-Trimethylbenzene	105	12.038	12.040	-0.002	94	52394	5.00	6.15	
107 4-Chlorotoluene	126	12.068	12.070	-0.002	97	15021	5.00	5.76	
108 tert-Butylbenzene	119	12.354	12.356	-0.002	94	47394	5.00	6.42	
110 1,2,4-Trimethylbenzene	105	12.415	12.417	-0.002	96	50411	5.00	5.84	
111 1,2-dichloro-4-(trifluorom	214	12.464	12.459	0.005	96	14800	5.00	5.73	
112 sec-Butylbenzene	105	12.579	12.581	-0.002	94	62841	5.00	6.26	
113 1,3-Dichlorobenzene	146	12.695	12.697	-0.002	97	26933	5.00	5.73	
114 4-Isopropyltoluene	119	12.737	12.733	0.004	95	52701	5.00	6.10	
115 1,4-Dichlorobenzene	146	12.804	12.800	0.004	95	29876	5.00	6.18	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.831	-0.002	93	14193	5.00	5.88	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.873	-0.008	0	14434	5.00	5.36	
120 n-Butylbenzene	91	13.145	13.147	-0.002	97	45375	5.00	6.13	
121 1,2-Dichlorobenzene	146	13.157	13.159	-0.002	96	25566	5.00	5.79	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.956	-0.008	53	5385	5.00	4.95	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.100	14.090	0.010	0	55694	15.0	17.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.514	14.510	0.004	0	38823	10.0	11.5	
126 1,2,4-Trichlorobenzene	180	14.775	14.771	0.004	92	14395	5.00	5.74	
127 Hexachlorobutadiene	225	14.921	14.917	0.004	91	6851	5.00	6.18	
128 Naphthalene	128	15.043	15.039	0.004	98	42825	5.00	5.40	
129 1,2,3-Trichlorobenzene	180	15.268	15.270	-0.002	93	12684	5.00	5.44	
131 2,4,5-Trichlorotoluene	159	16.041	16.037	0.004	0	7969	5.00	5.53	
130 2,3,6-Trichlorotoluene	159	16.132	16.134	-0.002	92	7741	5.00	5.89	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.4	
S 133 Xylenes, Total	106				0		10.0	11.7	
S 135 1,3-Dichloropropene, Total	1				0		10.0	11.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 0.20	Units: uL
voaWAcro1stRe_00014	Amount Added: 4.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 0.20	Units: uL
voaWKetmix1st_00003	Amount Added: 0.80	Units: uL
voaW2clev1stR_00008	Amount Added: 0.20	Units: uL
voaWVA1stRest_00015	Amount Added: 0.20	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 0.20	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D

Injection Date: 08-Jun-2017 06:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD1

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

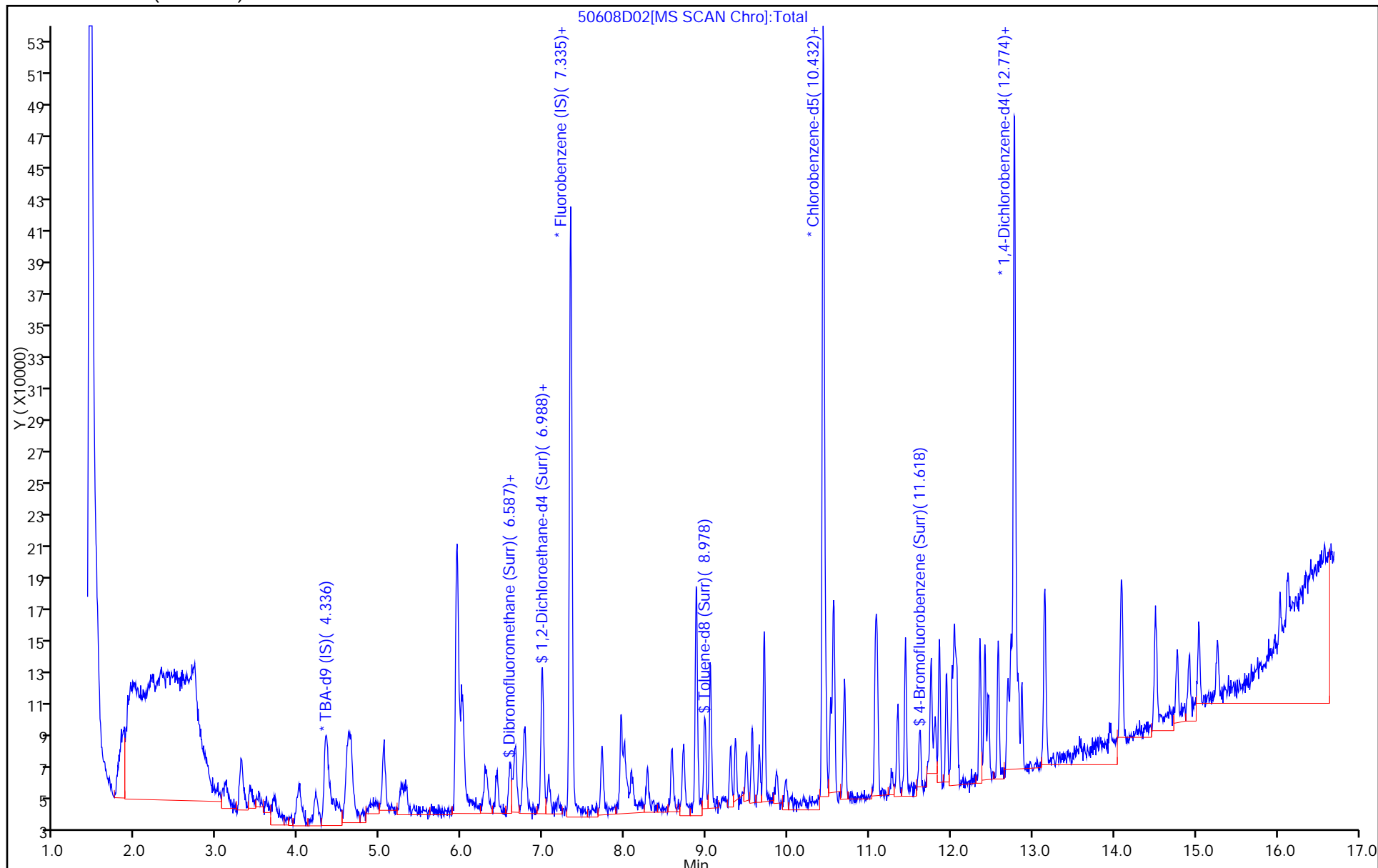
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

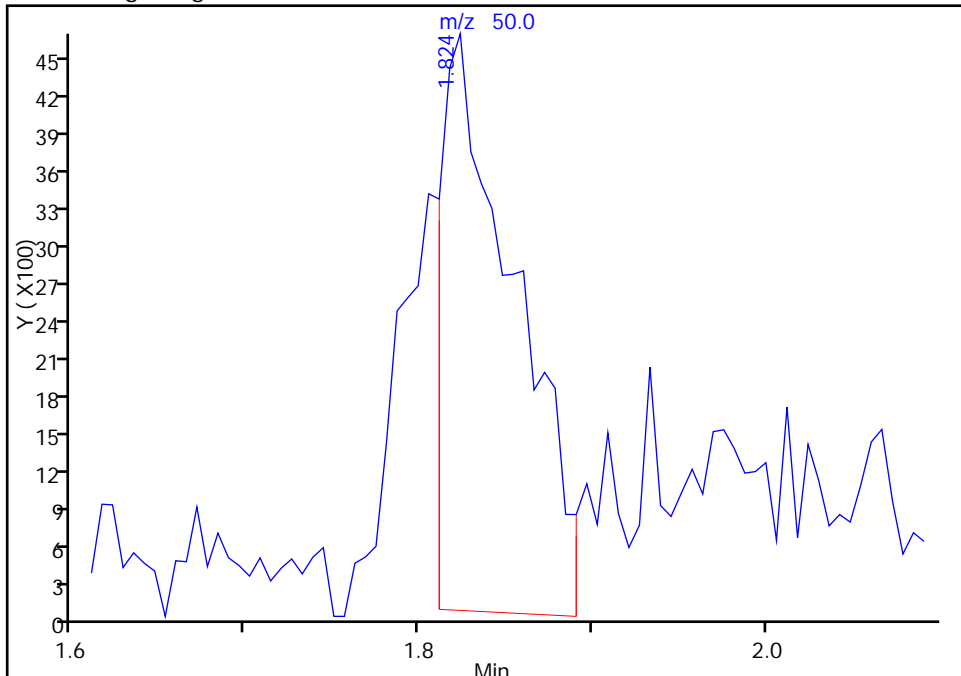
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Injection Date: 08-Jun-2017 06:03:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

12 Chloromethane, CAS: 74-87-3

Signal: 1

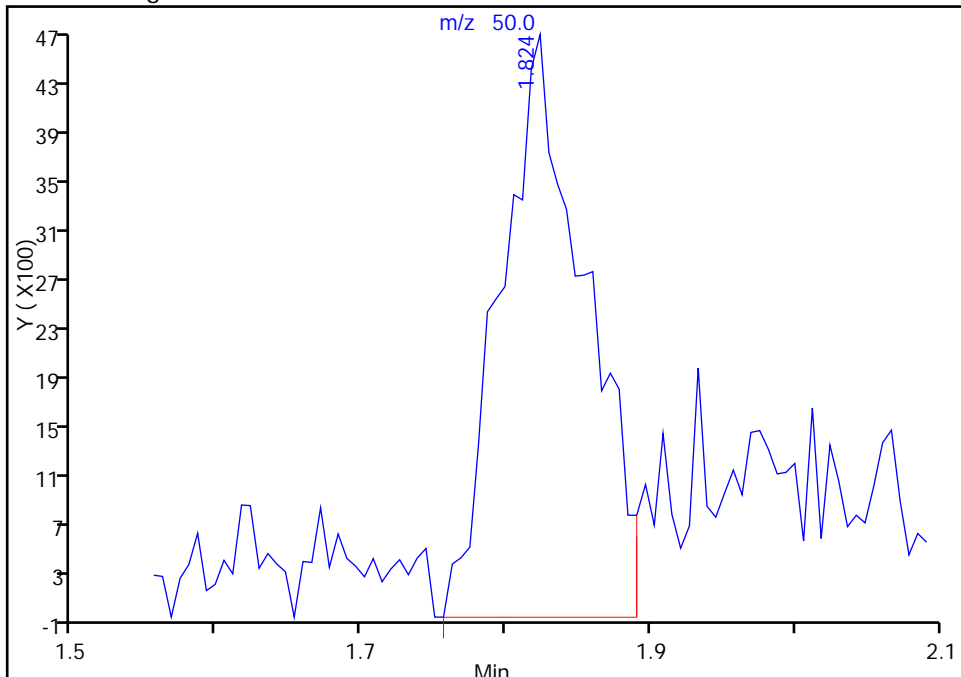
RT: 1.82  
Area: 13764  
Amount: 3.714099  
Amount Units: ng

Processing Integration Results



RT: 1.82  
Area: 18956  
Amount: 6.165870  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 07:42:27  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

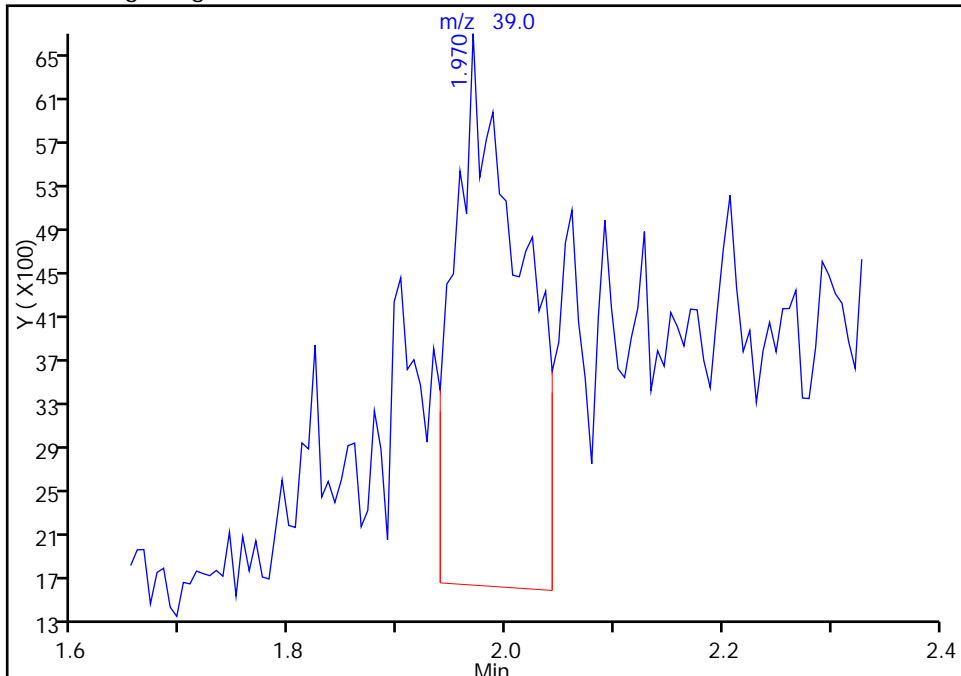
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Injection Date: 08-Jun-2017 06:03:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

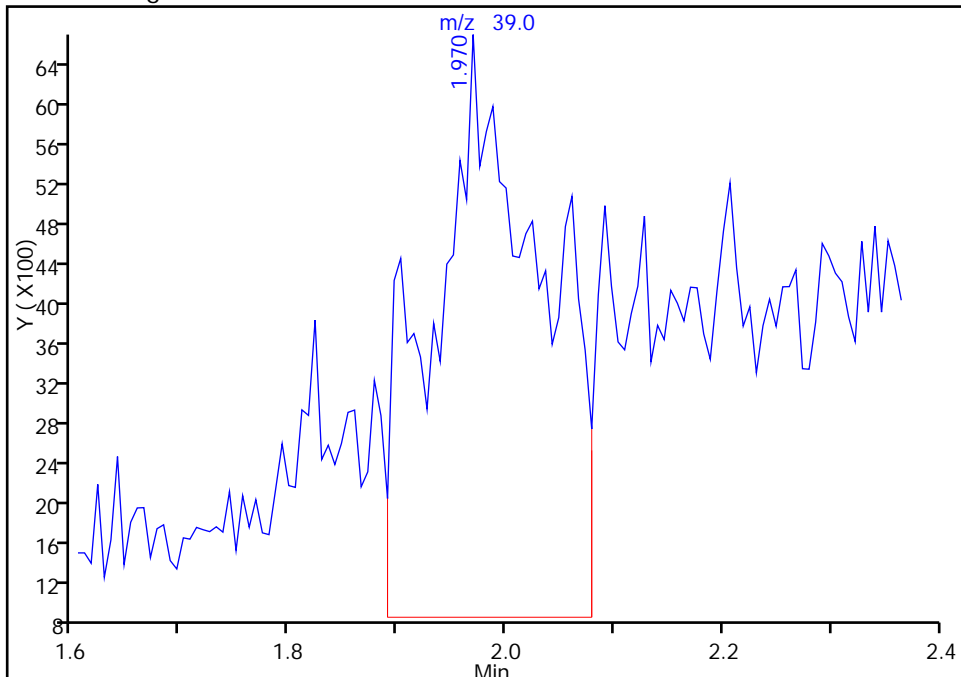
RT: 1.97  
Area: 21198  
Amount: 7.293688  
Amount Units: ng

Processing Integration Results



RT: 1.97  
Area: 40764  
Amount: 5.112320  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:14:10  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 08-Jun-2017 06:27:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-003  
 Misc. Info.: IC VSTD5  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:51:58 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:50:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.340	4.335	0.005	0	187522	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.335	-0.002	98	325638	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.431	0.004	88	81141	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.779	-0.002	95	116829	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.613	0.002	94	42506	25.0	25.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	7.110	-0.124	0	58513	25.0	25.5	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	93	175766	25.0	27.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.618	-0.003	87	69269	25.0	26.9	
11 Dichlorodifluoromethane	85	1.614	1.619	-0.005	96	48819	25.0	27.7	
12 Chloromethane	50	1.827	1.826	0.001	99	77319	25.0	27.4	
13 Vinyl chloride	62	1.955	1.947	0.008	70	59985	25.0	26.6	
14 Butadiene	39	1.985	1.972	0.013	97	65480	25.0	22.3	M
15 Bromomethane	94	2.314	2.318	-0.004	81	36804	25.0	27.3	
16 Chloroethane	64	2.454	2.446	0.008	87	40020	25.0	28.2	
18 Trichlorofluoromethane	101	2.728	2.720	0.008	96	60735	25.0	27.4	
17 Dichlorofluoromethane	67	2.728	2.726	0.002	61	91376	25.0	24.6	
20 Ethyl ether	59	3.111	3.109	0.002	96	58960	25.0	27.6	
21 Acrolein	56	3.293	3.304	-0.011	99	88139	125.0	129.5	
22 1,1-Dichloroethene	96	3.409	3.413	-0.004	95	51467	25.0	27.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.470	3.462	0.008	89	40795	25.0	25.9	
24 Acetone	43	3.518	3.511	0.007	100	89042	50.0	54.8	
25 Iodomethane	142	3.610	3.602	0.008	100	69421	25.0	24.6	
26 Carbon disulfide	76	3.695	3.693	0.002	100	149164	25.0	28.3	
28 3-Chloro-1-propene	76	3.993	3.991	0.002	91	40410	25.0	25.5	
30 Methyl acetate	43	4.017	4.022	-0.005	99	125959	50.0	50.9	
31 Methylene Chloride	84	4.212	4.216	-0.004	98	57651	25.0	25.4	
32 2-Methyl-2-propanol	59	4.480	4.478	0.002	98	59104	250.0	252.6	
33 Acrylonitrile	53	4.595	4.594	0.001	97	296073	250.0	259.1	
34 trans-1,2-Dichloroethene	96	4.632	4.630	0.002	72	60758	25.0	27.1	
35 Methyl tert-butyl ether	73	4.644	4.648	-0.004	95	179109	25.0	26.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.045	5.044	0.001	96	103760	25.0	26.3	
37 1,1-Dichloroethane	63	5.264	5.257	0.007	96	108391	25.0	25.5	
38 Vinyl acetate	43	5.313	5.311	0.002	97	155793	25.0	25.2	
44 2,2-Dichloropropane	97	6.000	5.999	0.001	56	16827	25.0	29.6	
45 cis-1,2-Dichloroethene	96	6.000	6.005	-0.005	84	64409	25.0	25.8	
46 2-Butanone (MEK)	43	6.013	6.023	-0.010	99	126726	50.0	59.7	
49 Chlorobromomethane	128	6.292	6.279	0.013	93	28527	25.0	25.9	
51 Tetrahydrofuran	42	6.311	6.303	0.008	92	60280	50.0	51.9	
52 Chloroform	83	6.432	6.431	0.001	95	95932	25.0	25.5	
53 1,1,1-Trichloroethane	97	6.591	6.589	0.002	97	84914	25.0	27.8	
54 Cyclohexane	56	6.657	6.656	0.001	95	113357	25.0	25.0	
56 Carbon tetrachloride	117	6.761	6.759	0.002	96	67382	25.0	25.1	
55 1,1-Dichloropropene	75	6.779	6.777	0.002	93	85510	25.0	26.7	
57 Isobutyl alcohol	41	6.980	6.978	0.002	62	71001	625.0	629.1	
58 Benzene	78	6.992	6.990	0.002	97	247989	25.0	26.5	
59 1,2-Dichloroethane	62	7.071	7.069	0.002	96	79055	25.0	25.7	
62 n-Heptane	43	7.351	7.349	0.002	96	98365	25.0	27.4	
64 Trichloroethene	130	7.722	7.720	0.002	97	60499	25.0	26.4	
66 Methylcyclohexane	83	7.953	7.958	-0.005	93	104066	25.0	26.7	
67 1,2-Dichloropropane	63	7.996	7.994	0.002	93	65502	25.0	25.2	
68 Dibromomethane	93	8.087	8.079	0.008	96	33894	25.0	25.2	
70 1,4-Dioxane	88	8.087	8.085	0.002	36	11481	500.0	470.9	
71 Dichlorobromomethane	83	8.276	8.274	0.002	97	74099	25.0	26.0	
73 2-Chloroethyl vinyl ether	63	8.580	8.578	0.002	92	90813	50.0	51.9	
74 cis-1,3-Dichloropropene	75	8.720	8.718	0.002	91	94517	25.0	24.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.878	8.876	0.002	98	201052	50.0	56.9	
76 Toluene	91	9.048	9.047	0.001	98	267398	25.0	28.3	
77 trans-1,3-Dichloropropene	75	9.298	9.296	0.002	97	85181	25.0	26.6	
78 Ethyl methacrylate	69	9.359	9.357	0.001	93	92176	25.0	27.1	
79 1,1,2-Trichloroethane	97	9.492	9.491	0.001	92	51670	25.0	27.0	
80 Tetrachloroethene	164	9.559	9.564	-0.005	98	49391	25.0	27.3	
81 1,3-Dichloropropane	76	9.651	9.649	0.002	96	89143	25.0	26.5	
82 2-Hexanone	43	9.705	9.710	-0.005	98	166556	50.0	59.4	
84 Chlorodibromomethane	129	9.863	9.862	0.001	90	47826	25.0	25.8	
85 Ethylene Dibromide	107	9.973	9.977	-0.004	96	50923	25.0	26.9	
86 3-Chlorobenzotrifluoride	180	10.435	10.434	0.001	89	78236	25.0	24.2	
87 Chlorobenzene	112	10.460	10.464	-0.004	93	163865	25.0	27.2	
88 4-Chlorobenzotrifluoride	180	10.520	10.525	-0.005	95	75328	25.0	24.4	
89 1,1,1,2-Tetrachloroethane	131	10.557	10.555	0.002	94	55355	25.0	27.1	
90 Ethylbenzene	106	10.563	10.561	0.002	98	92680	25.0	27.9	
91 m-Xylene & p-Xylene	106	10.697	10.695	0.002	0	113117	25.0	27.8	
92 o-Xylene	106	11.074	11.072	0.002	98	110628	25.0	27.6	
93 Styrene	104	11.098	11.097	0.001	96	186493	25.0	27.4	
94 Bromoform	173	11.275	11.279	-0.004	96	35678	25.0	27.1	
96 2-Chlorobenzotrifluoride	180	11.348	11.346	0.002	98	81717	25.0	25.2	
97 Isopropylbenzene	105	11.439	11.443	-0.004	96	275560	25.0	28.1	
100 Bromobenzene	156	11.755	11.754	0.001	96	62935	25.0	25.7	
99 1,1,2,2-Tetrachloroethane	83	11.755	11.754	0.001	80	71451	25.0	27.5	
102 trans-1,4-Dichloro-2-buten	53	11.798	11.790	0.008	85	24438	25.0	25.2	
101 1,2,3-Trichloropropane	110	11.816	11.809	0.008	86	21177	25.0	24.1	
103 N-Propylbenzene	120	11.859	11.863	-0.004	99	75699	25.0	26.4	
104 2-Chlorotoluene	126	11.944	11.948	-0.004	96	64522	25.0	26.7	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.011	12.009	0.002	96	64028	25.0	24.6	
106 1,3,5-Trimethylbenzene	105	12.041	12.040	0.001	96	225181	25.0	27.4	
107 4-Chlorotoluene	126	12.072	12.070	0.002	98	65156	25.0	25.9	
108 tert-Butylbenzene	119	12.358	12.356	0.002	94	192596	25.0	27.1	
110 1,2,4-Trimethylbenzene	105	12.412	12.417	-0.005	98	226542	25.0	27.3	
111 1,2-dichloro-4-(trifluorom	214	12.461	12.459	0.002	98	60123	25.0	24.2	
112 sec-Butylbenzene	105	12.577	12.581	-0.004	94	263915	25.0	27.3	
113 1,3-Dichlorobenzene	146	12.698	12.697	0.001	99	118704	25.0	26.2	
114 4-Isopropyltoluene	119	12.735	12.733	0.002	97	228298	25.0	27.4	
115 1,4-Dichlorobenzene	146	12.802	12.800	0.002	96	121326	25.0	26.0	
116 2,4-Dichloro-1-(trifluorom	214	12.832	12.831	0.001	96	56924	25.0	24.5	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.873	-0.004	0	61504	25.0	23.7	
120 n-Butylbenzene	91	13.142	13.147	-0.005	98	193470	25.0	27.1	
121 1,2-Dichlorobenzene	146	13.155	13.159	-0.004	97	110285	25.0	25.9	
122 1,2-Dibromo-3-Chloropropan	75	13.945	13.956	-0.011	82	16918	25.0	26.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.090	0.001	0	232473	75.0	75.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.511	14.510	0.001	0	163558	50.0	50.1	
126 1,2,4-Trichlorobenzene	180	14.773	14.771	0.002	95	61041	25.0	25.2	
127 Hexachlorobutadiene	225	14.919	14.917	0.002	94	28379	25.0	26.5	
128 Naphthalene	128	15.040	15.039	0.001	97	195394	25.0	25.6	
129 1,2,3-Trichlorobenzene	180	15.266	15.270	-0.004	94	57072	25.0	25.4	
131 2,4,5-Trichlorotoluene	159	16.038	16.037	0.001	0	33861	25.0	24.4	
130 2,3,6-Trichlorotoluene	159	16.129	16.134	-0.005	97	32510	25.0	25.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		50.0	55.5	
S 134 1,2-Dichloroethene, Total	96				0		50.0	52.8	
S 135 1,3-Dichloropropene, Total	1				0		50.0	51.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 1.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 5.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 1.00	Units: uL
voaWKetmix1st_00003	Amount Added: 1.00	Units: uL
voaW2clev1stR_00008	Amount Added: 1.00	Units: uL
voaWVA1stRest_00015	Amount Added: 1.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 1.00	Units: uL



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D

Injection Date: 08-Jun-2017 06:27:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD5

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

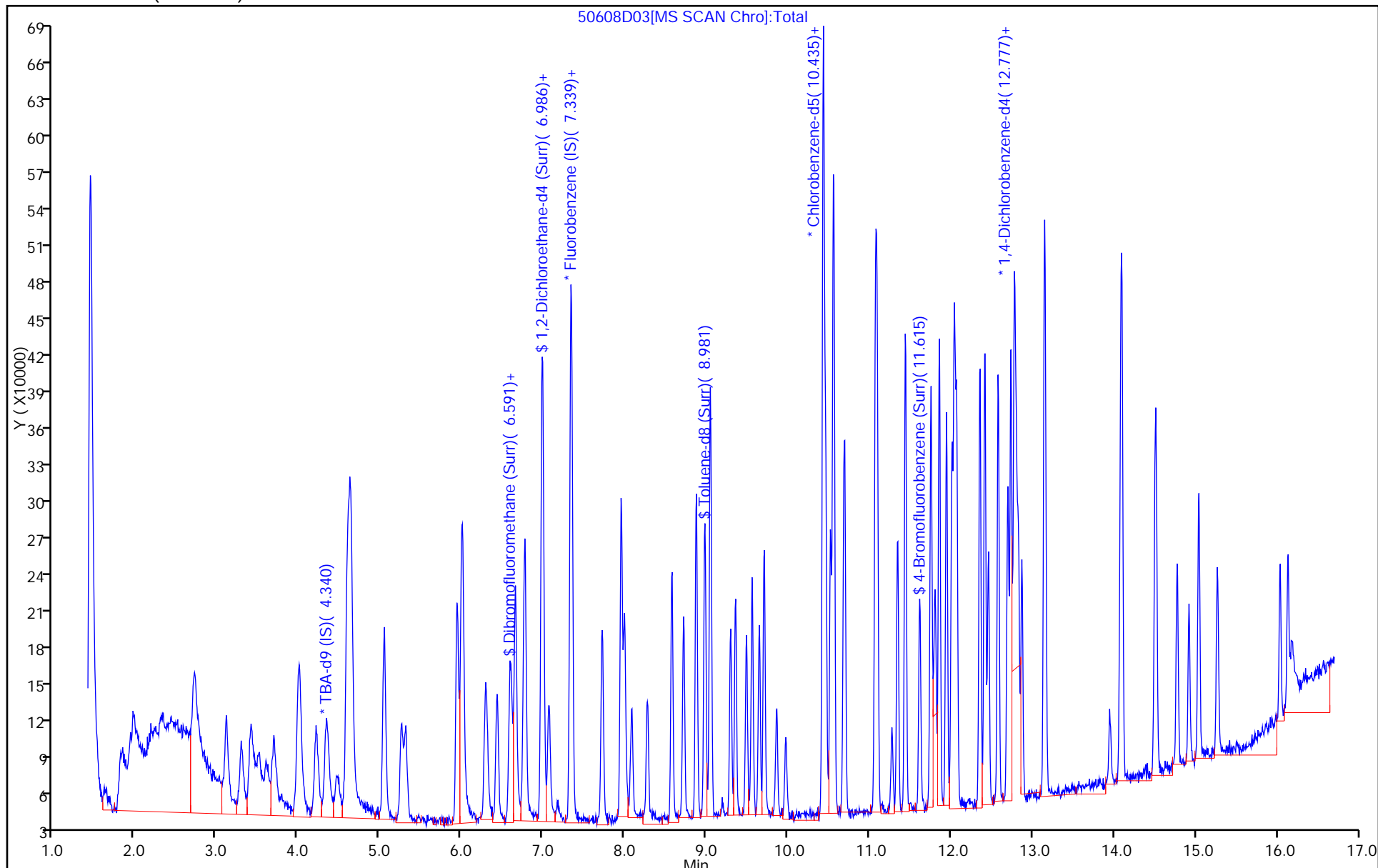
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

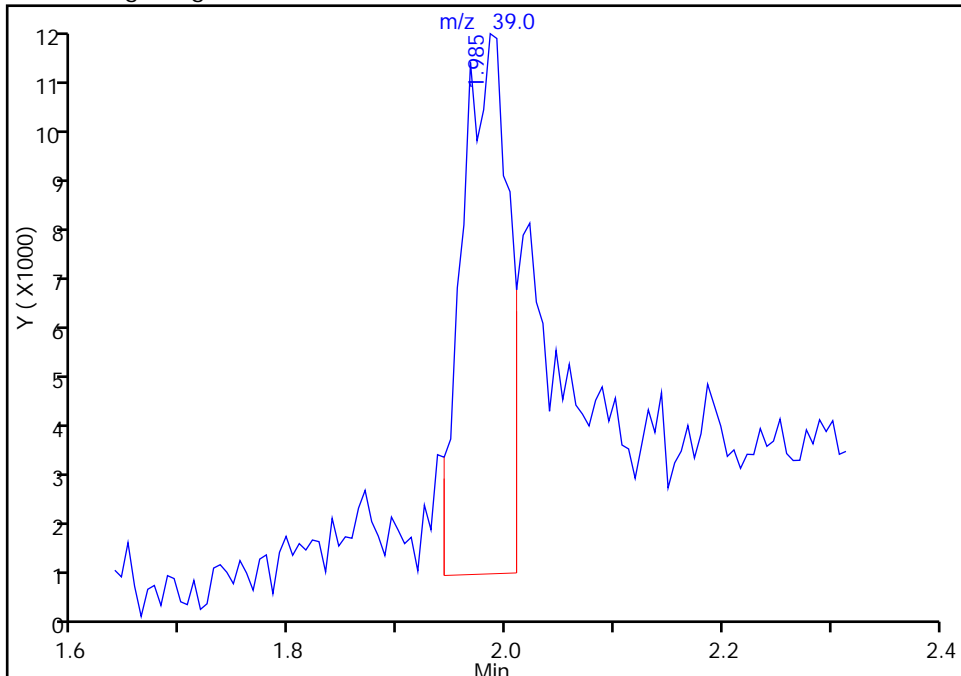
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D  
Injection Date: 08-Jun-2017 06:27:30 Instrument ID: CHHP5  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

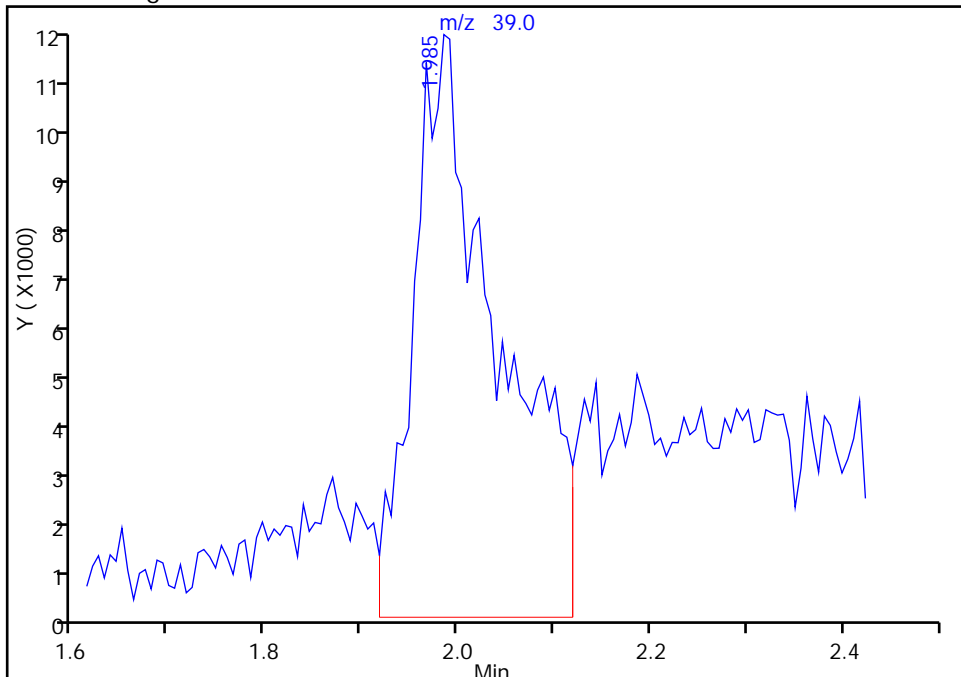
RT: 1.99  
Area: 28410  
Amount: 9.122879  
Amount Units: ng

Processing Integration Results



RT: 1.99  
Area: 65480  
Amount: 22.258941  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:14:49  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 08-Jun-2017 06:50:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-004  
 Misc. Info.: ICIS VSTD10  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:59:21 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:40:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.344	4.344	0.000	0	265733	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.337	0.000	95	343353	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.434	0.000	86	84081	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.776	12.776	0.000	71	124675	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.613	6.613	0.000	68	88453	50.0	50.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.978	6.978	0.000	0	121114	50.0	50.0	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	83	372845	50.0	55.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.614	0.000	85	144024	50.0	53.9	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	98	90064	50.0	48.4	
12 Chloromethane	50	1.826	1.826	0.000	100	147443	50.0	49.6	
13 Vinyl chloride	62	1.947	1.947	0.000	98	118745	50.0	50.0	
14 Butadiene	39	1.972	1.972	0.000	96	110274	50.0	46.1	M
15 Bromomethane	94	2.318	2.318	0.000	90	68918	50.0	52.1	
16 Chloroethane	64	2.446	2.446	0.000	97	71071	50.0	50.6	
18 Trichlorofluoromethane	101	2.720	2.720	0.000	95	126846	50.0	54.2	
17 Dichlorofluoromethane	67	2.726	2.726	0.000	78	190543	50.0	54.8	
20 Ethyl ether	59	3.109	3.109	0.000	91	108085	50.0	48.0	
21 Acrolein	56	3.304	3.304	0.000	91	97603	150.0	136.0	
22 1,1-Dichloroethene	96	3.413	3.413	0.000	87	90421	50.0	45.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.462	3.462	0.000	84	68361	50.0	41.2	
24 Acetone	43	3.511	3.511	0.000	95	191862	100.0	114.4	
25 Iodomethane	142	3.602	3.602	0.000	97	152131	50.0	51.1	
26 Carbon disulfide	76	3.693	3.693	0.000	99	282135	50.0	50.8	
28 3-Chloro-1-propene	76	3.991	3.991	0.000	88	80183	50.0	48.1	
30 Methyl acetate	43	4.022	4.022	0.000	99	263099	100.0	100.8	
31 Methylene Chloride	84	4.216	4.216	0.000	92	120006	50.0	50.0	
32 2-Methyl-2-propanol	59	4.478	4.478	0.000	94	167444	500.0	505.1	
33 Acrylonitrile	53	4.594	4.594	0.000	98	621223	500.0	515.6	
34 trans-1,2-Dichloroethene	96	4.630	4.630	0.000	70	116991	50.0	49.4	
35 Methyl tert-butyl ether	73	4.648	4.648	0.000	91	352917	50.0	49.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.044	5.044	0.000	93	201514	50.0	48.4	
37 1,1-Dichloroethane	63	5.257	5.257	0.000	96	217303	50.0	48.6	
38 Vinyl acetate	43	5.311	5.311	0.000	97	313586	50.0	48.0	
44 2,2-Dichloropropane	97	5.999	5.999	0.000	50	32248	50.0	53.8	
45 cis-1,2-Dichloroethene	96	6.005	6.005	0.000	71	129830	50.0	49.3	
46 2-Butanone (MEK)	43	6.023	6.023	0.000	91	263149	100.0	117.6	
49 Chlorobromomethane	128	6.279	6.279	0.000	90	54076	50.0	46.5	
51 Tetrahydrofuran	42	6.303	6.303	0.000	93	118128	100.0	101.7	
52 Chloroform	83	6.431	6.431	0.000	82	192042	50.0	48.4	
53 1,1,1-Trichloroethane	97	6.589	6.589	0.000	98	158536	50.0	49.3	
54 Cyclohexane	56	6.656	6.656	0.000	93	245975	50.0	51.4	
56 Carbon tetrachloride	117	6.759	6.759	0.000	78	138765	50.0	49.1	
55 1,1-Dichloropropene	75	6.777	6.777	0.000	90	164019	50.0	48.5	
57 Isobutyl alcohol	41	6.978	6.978	0.000	74	162229	1250.0	1363.2	
58 Benzene	78	6.990	6.990	0.000	96	491290	50.0	49.8	
59 1,2-Dichloroethane	62	7.069	7.069	0.000	72	154690	50.0	47.6	
62 n-Heptane	43	7.349	7.349	0.000	94	180722	50.0	47.7	
64 Trichloroethene	130	7.720	7.720	0.000	92	119100	50.0	49.3	
66 Methylcyclohexane	83	7.958	7.958	0.000	96	200723	50.0	48.8	
67 1,2-Dichloropropane	63	7.994	7.994	0.000	91	131736	50.0	48.0	
68 Dibromomethane	93	8.079	8.079	0.000	89	67786	50.0	47.9	
70 1,4-Dioxane	88	8.085	8.085	0.000	40	28838	1000.0	1121.8	
71 Dichlorobromomethane	83	8.274	8.274	0.000	88	144075	50.0	48.0	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	92	189337	100.0	102.5	
74 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	90	195974	50.0	48.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.876	8.876	0.000	98	408149	100.0	111.5	
76 Toluene	91	9.047	9.047	0.000	88	518665	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	93	173242	50.0	52.2	
78 Ethyl methacrylate	69	9.357	9.357	0.000	75	187087	50.0	53.0	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	87	103149	50.0	52.1	
80 Tetrachloroethene	164	9.564	9.564	0.000	84	100597	50.0	53.7	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	96	182710	50.0	52.3	
82 2-Hexanone	43	9.710	9.710	0.000	82	356470	100.0	122.6	
84 Chlorodibromomethane	129	9.862	9.862	0.000	85	97738	50.0	50.9	
85 Ethylene Dibromide	107	9.977	9.977	0.000	96	101860	50.0	51.9	
86 3-Chlorobenzotrifluoride	180	10.434	10.434	0.000	89	173880	50.0	51.9	
87 Chlorobenzene	112	10.464	10.464	0.000	92	328169	50.0	52.7	
88 4-Chlorobenzotrifluoride	180	10.525	10.525	0.000	79	169101	50.0	52.8	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.555	0.000	39	108701	50.0	51.3	
90 Ethylbenzene	106	10.561	10.561	0.000	99	179947	50.0	52.3	
91 m-Xylene & p-Xylene	106	10.695	10.695	0.000	0	220525	50.0	52.3	
92 o-Xylene	106	11.072	11.072	0.000	96	219383	50.0	52.9	
93 Styrene	104	11.097	11.097	0.000	93	370310	50.0	52.5	
94 Bromoform	173	11.279	11.279	0.000	92	71432	50.0	52.4	
96 2-Chlorobenzotrifluoride	180	11.346	11.346	0.000	93	179192	50.0	53.4	
97 Isopropylbenzene	105	11.443	11.443	0.000	96	539180	50.0	53.0	
100 Bromobenzene	156	11.754	11.754	0.000	96	132180	50.0	50.6	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.754	0.000	71	149279	50.0	55.3	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.790	0.000	46	49225	50.0	47.6	
101 1,2,3-Trichloropropane	110	11.809	11.809	0.000	33	45049	50.0	50.1	
103 N-Propylbenzene	120	11.863	11.863	0.000	99	150964	50.0	49.4	
104 2-Chlorotoluene	126	11.948	11.948	0.000	96	126477	50.0	49.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.009	12.009	0.000	97	137789	50.0	49.6	
106 1,3,5-Trimethylbenzene	105	12.040	12.040	0.000	95	437477	50.0	50.0	
107 4-Chlorotoluene	126	12.070	12.070	0.000	82	134516	50.0	50.1	
108 tert-Butylbenzene	119	12.356	12.356	0.000	92	374641	50.0	49.4	
110 1,2,4-Trimethylbenzene	105	12.417	12.417	0.000	98	447784	50.0	50.5	
111 1,2-dichloro-4-(trifluorom	214	12.459	12.459	0.000	75	128125	50.0	48.2	
112 sec-Butylbenzene	105	12.581	12.581	0.000	94	518713	50.0	50.2	
113 1,3-Dichlorobenzene	146	12.697	12.697	0.000	97	239355	50.0	49.5	
114 4-Isopropyltoluene	119	12.733	12.733	0.000	89	447713	50.0	50.4	
115 1,4-Dichlorobenzene	146	12.800	12.800	0.000	92	241133	50.0	48.5	
116 2,4-Dichloro-1-(trifluorom	214	12.831	12.831	0.000	96	120263	50.0	48.4	
118 2,5-Dichlorobenzotrifluori	214	12.873	12.873	0.000	0	139012	50.0	50.2	
120 n-Butylbenzene	91	13.147	13.147	0.000	95	384393	50.0	50.5	
121 1,2-Dichlorobenzene	146	13.159	13.159	0.000	95	228728	50.0	50.4	
122 1,2-Dibromo-3-Chloropropan	75	13.956	13.956	0.000	76	31264	50.0	49.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.090	14.090	0.000	0	511161	150.0	154.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.510	0.000	0	360161	100.0	103.3	
126 1,2,4-Trichlorobenzene	180	14.771	14.771	0.000	93	131499	50.0	50.9	
127 Hexachlorobutadiene	225	14.917	14.917	0.000	92	57408	50.0	50.3	
128 Naphthalene	128	15.039	15.039	0.000	97	441802	50.0	54.2	
129 1,2,3-Trichlorobenzene	180	15.270	15.270	0.000	94	125237	50.0	52.3	
131 2,4,5-Trichlorotoluene	159	16.037	16.037	0.000	0	80722	50.0	54.4	
130 2,3,6-Trichlorotoluene	159	16.134	16.134	0.000	95	71633	50.0	53.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	101.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 2.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 6.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 2.00	Units: uL
voaWKetmix1st_00003	Amount Added: 2.00	Units: uL
voaW2clev1stR_00008	Amount Added: 2.00	Units: uL
voaWVA1stRest_00015	Amount Added: 2.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D

Injection Date: 08-Jun-2017 06:50:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICIS VSTD10

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

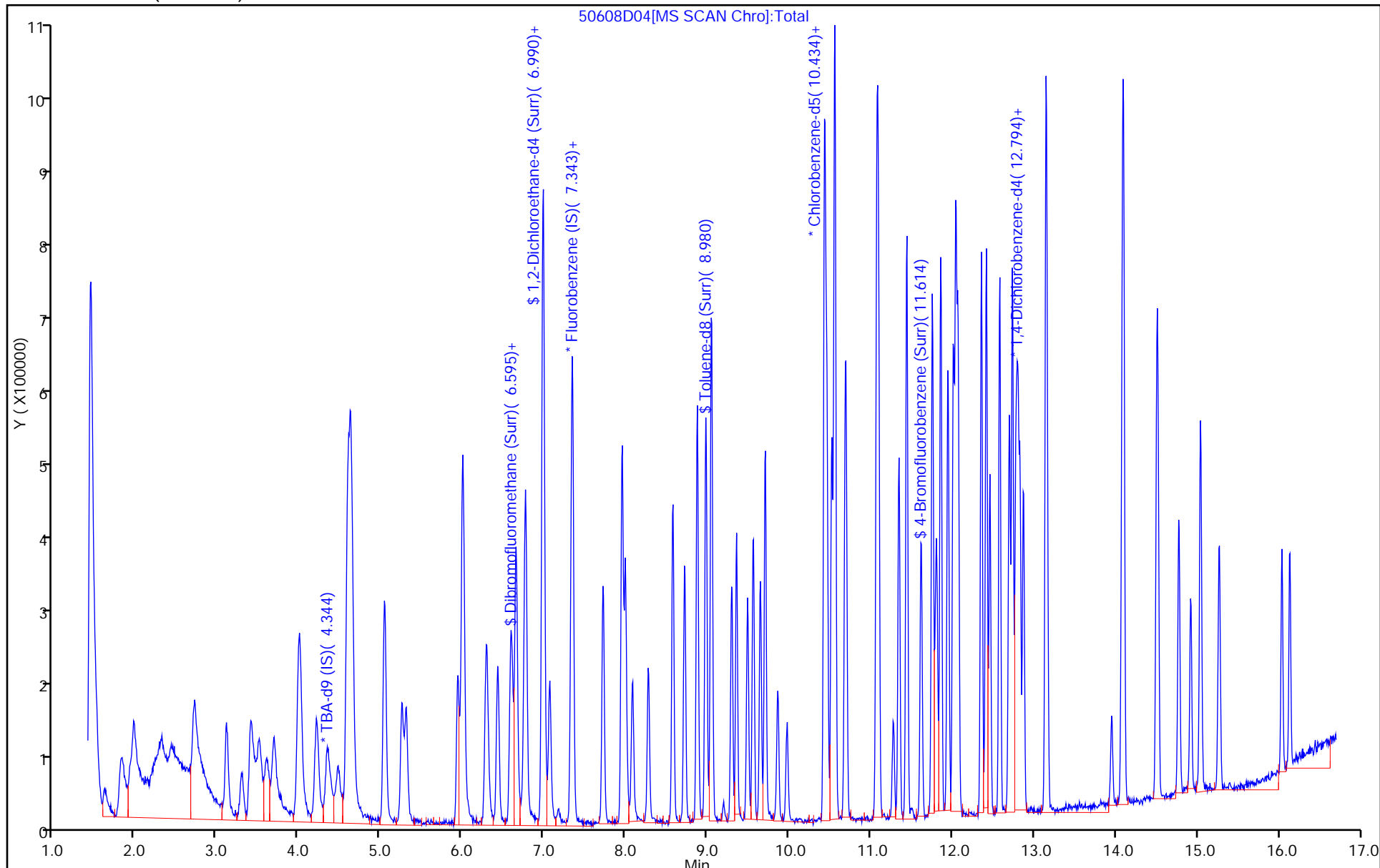
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

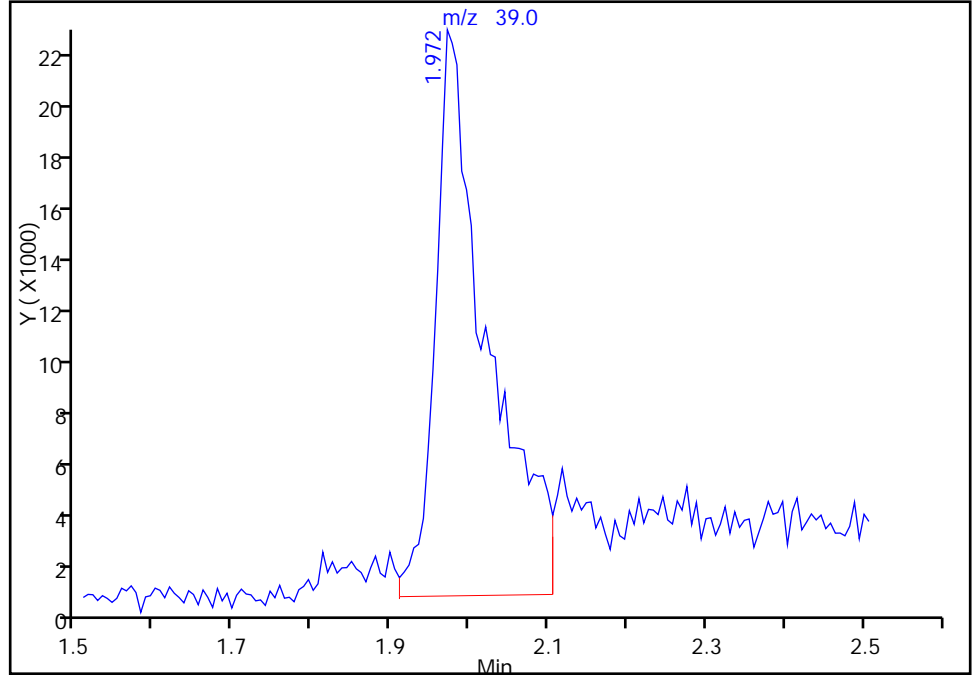
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Injection Date: 08-Jun-2017 06:50:30 Instrument ID: CHHP5  
Lims ID: ICIS VSTD10  
Client ID:  
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

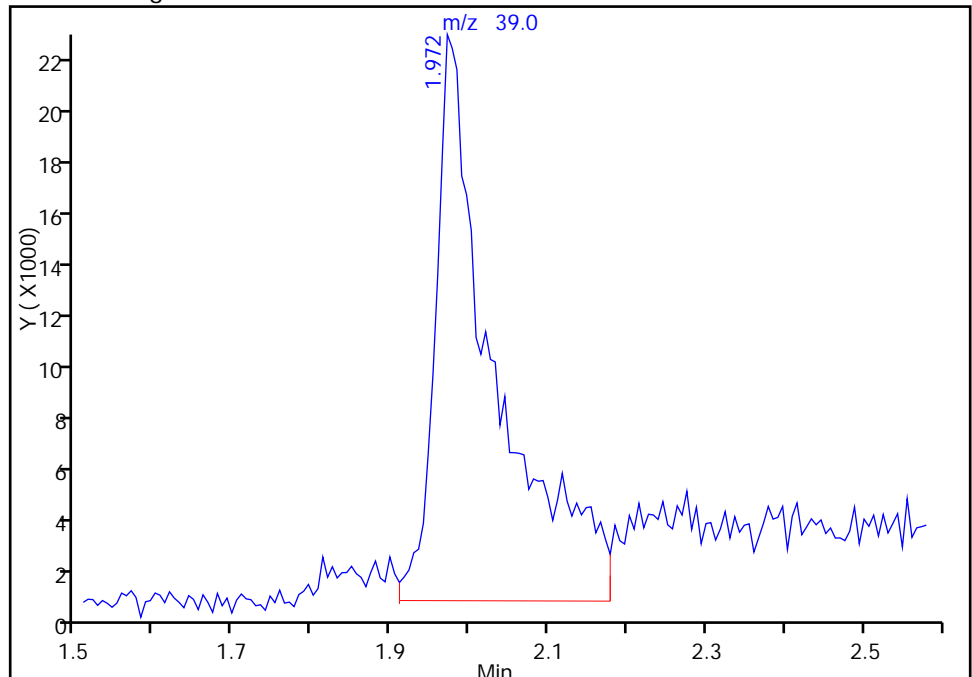
RT: 1.97  
Area: 96074  
Amount: 27.615453  
Amount Units: ng

Processing Integration Results



RT: 1.97  
Area: 110274  
Amount: 46.125869  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:15:47  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 08-Jun-2017 07:24:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-005  
 Misc. Info.: IC VSTD15  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:52:03 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:51:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.343	4.343	0.000	0	265751	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.336	0.000	98	365244	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	89	91661	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.781	12.781	0.000	93	130248	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.612	0.000	93	126785	75.0	67.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.983	0.000	0	173185	75.0	67.3	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	94	540141	75.0	73.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	88	210916	75.0	72.5	
11 Dichlorodifluoromethane	85	1.630	1.630	0.000	98	146171	75.0	73.9	
12 Chloromethane	50	1.831	1.831	0.000	98	222659	75.0	70.4	
13 Vinyl chloride	62	1.940	1.940	0.000	98	182711	75.0	72.3	
14 Butadiene	39	1.977	1.977	0.000	93	175484	75.0	77.8	M
15 Bromomethane	94	2.311	2.311	0.000	90	103436	75.0	75.5	
16 Chloroethane	64	2.451	2.451	0.000	98	109878	75.0	75.7	
18 Trichlorofluoromethane	101	2.719	2.719	0.000	95	157636	75.0	63.3	
17 Dichlorofluoromethane	67	2.725	2.725	0.000	95	273916	75.0	76.3	
20 Ethyl ether	59	3.108	3.108	0.000	95	174419	75.0	72.8	
21 Acrolein	56	3.297	3.297	0.000	99	133597	175.0	175.0	
22 1,1-Dichloroethene	96	3.400	3.400	0.000	95	144859	75.0	67.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.455	3.455	0.000	92	135965	75.0	77.0	
24 Acetone	43	3.510	3.510	0.000	99	239078	150.0	136.0	
25 Iodomethane	142	3.601	3.601	0.000	97	222629	75.0	70.3	
26 Carbon disulfide	76	3.686	3.686	0.000	100	431464	75.0	73.0	
28 3-Chloro-1-propene	76	3.990	3.990	0.000	90	129444	75.0	72.9	
30 Methyl acetate	43	4.015	4.015	0.000	99	385350	150.0	138.8	
31 Methylene Chloride	84	4.209	4.209	0.000	99	168850	75.0	66.2	
32 2-Methyl-2-propanol	59	4.471	4.471	0.000	98	223746	750.0	674.8	
33 Acrylonitrile	53	4.593	4.593	0.000	99	916220	750.0	714.8	
34 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	94	175351	75.0	69.6	
35 Methyl tert-butyl ether	73	4.635	4.635	0.000	99	533673	75.0	70.6	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.043	5.043	0.000	95	313674	75.0	70.9	
37 1,1-Dichloroethane	63	5.256	5.256	0.000	97	330111	75.0	69.4	
38 Vinyl acetate	43	5.310	5.310	0.000	97	480729	75.0	69.2	
44 2,2-Dichloropropane	97	5.992	5.992	0.000	93	46205	75.0	72.5	
45 cis-1,2-Dichloroethene	96	6.004	6.004	0.000	84	193227	75.0	68.9	
46 2-Butanone (MEK)	43	6.010	6.010	0.000	99	334832	150.0	140.7	
49 Chlorobromomethane	128	6.284	6.284	0.000	94	85492	75.0	69.1	
51 Tetrahydrofuran	42	6.296	6.296	0.000	92	163375	150.0	134.0	
52 Chloroform	83	6.430	6.430	0.000	95	285922	75.0	67.7	
53 1,1,1-Trichloroethane	97	6.594	6.594	0.000	98	233627	75.0	68.3	
54 Cyclohexane	56	6.655	6.655	0.000	95	358503	75.0	70.4	
56 Carbon tetrachloride	117	6.758	6.758	0.000	97	207671	75.0	69.1	
55 1,1-Dichloropropene	75	6.776	6.776	0.000	92	248344	75.0	69.1	
57 Isobutyl alcohol	41	6.977	6.977	0.000	96	215962	1875.0	1705.9	
58 Benzene	78	6.989	6.989	0.000	97	734073	75.0	69.9	
59 1,2-Dichloroethane	62	7.068	7.068	0.000	97	235973	75.0	68.3	
62 n-Heptane	43	7.348	7.348	0.000	96	282966	75.0	70.2	
64 Trichloroethene	130	7.719	7.719	0.000	97	177850	75.0	69.2	
66 Methylcyclohexane	83	7.957	7.957	0.000	95	308209	75.0	70.5	
67 1,2-Dichloropropane	63	7.993	7.993	0.000	96	200014	75.0	68.5	
68 Dibromomethane	93	8.078	8.078	0.000	93	100567	75.0	66.7	
70 1,4-Dioxane	88	8.084	8.084	0.000	41	35832	1500.0	1310.3	
71 Dichlorobromomethane	83	8.273	8.273	0.000	98	220386	75.0	69.0	
73 2-Chloroethyl vinyl ether	63	8.577	8.577	0.000	92	274054	150.0	139.5	
74 cis-1,3-Dichloropropene	75	8.717	8.717	0.000	92	296141	75.0	69.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.875	8.875	0.000	98	585317	150.0	146.6	
76 Toluene	91	9.052	9.052	0.000	99	780737	75.0	73.1	
77 trans-1,3-Dichloropropene	75	9.295	9.295	0.000	98	258935	75.0	71.5	
78 Ethyl methacrylate	69	9.356	9.356	0.000	92	280255	75.0	72.9	
79 1,1,2-Trichloroethane	97	9.496	9.496	0.000	92	153411	75.0	71.1	
80 Tetrachloroethene	164	9.563	9.563	0.000	98	152819	75.0	74.8	
81 1,3-Dichloropropane	76	9.648	9.648	0.000	97	274592	75.0	72.2	
82 2-Hexanone	43	9.709	9.709	0.000	98	481301	150.0	151.9	
84 Chlorodibromomethane	129	9.861	9.861	0.000	90	149990	75.0	71.7	
85 Ethylene Dibromide	107	9.976	9.976	0.000	100	148835	75.0	69.6	
86 3-Chlorobenzotrifluoride	180	10.439	10.439	0.000	92	274484	75.0	75.1	
87 Chlorobenzene	112	10.463	10.463	0.000	93	490822	75.0	72.2	
88 4-Chlorobenzotrifluoride	180	10.524	10.524	0.000	95	260997	75.0	74.7	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.554	0.000	94	169025	75.0	73.2	
90 Ethylbenzene	106	10.560	10.560	0.000	99	271964	75.0	72.5	
91 m-Xylene & p-Xylene	106	10.694	10.694	0.000	0	334134	75.0	72.7	
92 o-Xylene	106	11.071	11.071	0.000	97	326410	75.0	72.2	
93 Styrene	104	11.096	11.096	0.000	95	550534	75.0	71.6	
94 Bromoform	173	11.278	11.278	0.000	97	104149	75.0	70.0	
96 2-Chlorobenzotrifluoride	180	11.345	11.345	0.000	97	268204	75.0	73.3	
97 Isopropylbenzene	105	11.442	11.442	0.000	97	815253	75.0	73.5	
100 Bromobenzene	156	11.753	11.753	0.000	96	192570	75.0	70.6	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.753	0.000	91	204042	75.0	69.4	
102 trans-1,4-Dichloro-2-buten	53	11.795	11.795	0.000	87	76568	75.0	70.9	
101 1,2,3-Trichloropropane	110	11.814	11.814	0.000	86	68430	75.0	73.8	
103 N-Propylbenzene	120	11.856	11.856	0.000	99	226484	75.0	71.0	
104 2-Chlorotoluene	126	11.947	11.947	0.000	96	189243	75.0	70.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	98	204267	75.0	70.4	
106 1,3,5-Trimethylbenzene	105	12.045	12.045	0.000	95	646696	75.0	70.7	
107 4-Chlorotoluene	126	12.069	12.069	0.000	97	196596	75.0	70.1	
108 tert-Butylbenzene	119	12.355	12.355	0.000	94	559488	75.0	70.6	
110 1,2,4-Trimethylbenzene	105	12.416	12.416	0.000	97	668751	75.0	72.2	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	98	203613	75.0	73.4	
112 sec-Butylbenzene	105	12.580	12.580	0.000	95	775789	75.0	71.9	
113 1,3-Dichlorobenzene	146	12.696	12.696	0.000	98	359242	75.0	71.2	
114 4-Isopropyltoluene	119	12.738	12.738	0.000	97	663144	75.0	71.4	
115 1,4-Dichlorobenzene	146	12.799	12.799	0.000	95	361359	75.0	69.6	
116 2,4-Dichloro-1-(trifluorom	214	12.830	12.830	0.000	97	180562	75.0	69.6	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.872	0.000	0	214948	75.0	74.3	
120 n-Butylbenzene	91	13.146	13.146	0.000	97	565547	75.0	71.1	
121 1,2-Dichlorobenzene	146	13.158	13.158	0.000	96	328411	75.0	69.2	
122 1,2-Dibromo-3-Chloropropan	75	13.955	13.955	0.000	85	43060	75.0	67.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.095	14.095	0.000	0	735393	225.0	213.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.515	14.515	0.000	0	501273	150.0	137.6	
126 1,2,4-Trichlorobenzene	180	14.776	14.776	0.000	95	181806	75.0	67.4	
127 Hexachlorobutadiene	225	14.922	14.922	0.000	95	81879	75.0	68.7	
128 Naphthalene	128	15.038	15.038	0.000	98	584418	75.0	68.6	
129 1,2,3-Trichlorobenzene	180	15.269	15.269	0.000	94	166025	75.0	66.3	
131 2,4,5-Trichlorotoluene	159	16.036	16.036	0.000	0	103751	75.0	67.0	
130 2,3,6-Trichlorotoluene	159	16.133	16.133	0.000	96	92963	75.0	65.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		150.0	144.9	
S 134 1,2-Dichloroethene, Total	96				0		150.0	138.6	
S 135 1,3-Dichloropropene, Total	1				0		150.0	140.9	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 3.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 7.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 3.00	Units: uL
voaWKetmix1st_00003	Amount Added: 3.00	Units: uL
voaW2clev1stR_00008	Amount Added: 3.00	Units: uL
voaWVA1stRest_00015	Amount Added: 3.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 3.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D

Injection Date: 08-Jun-2017 07:24:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD15

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

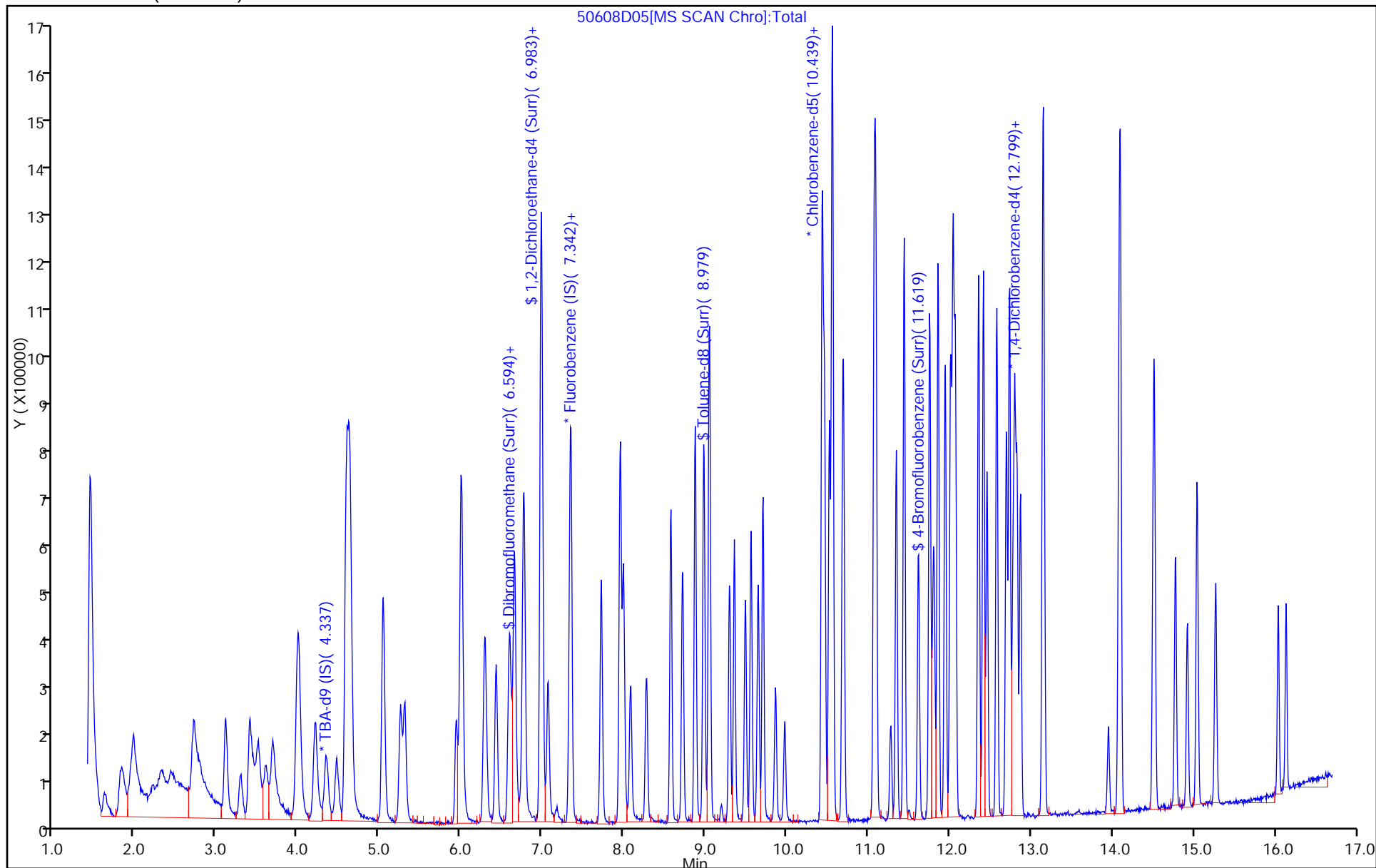
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

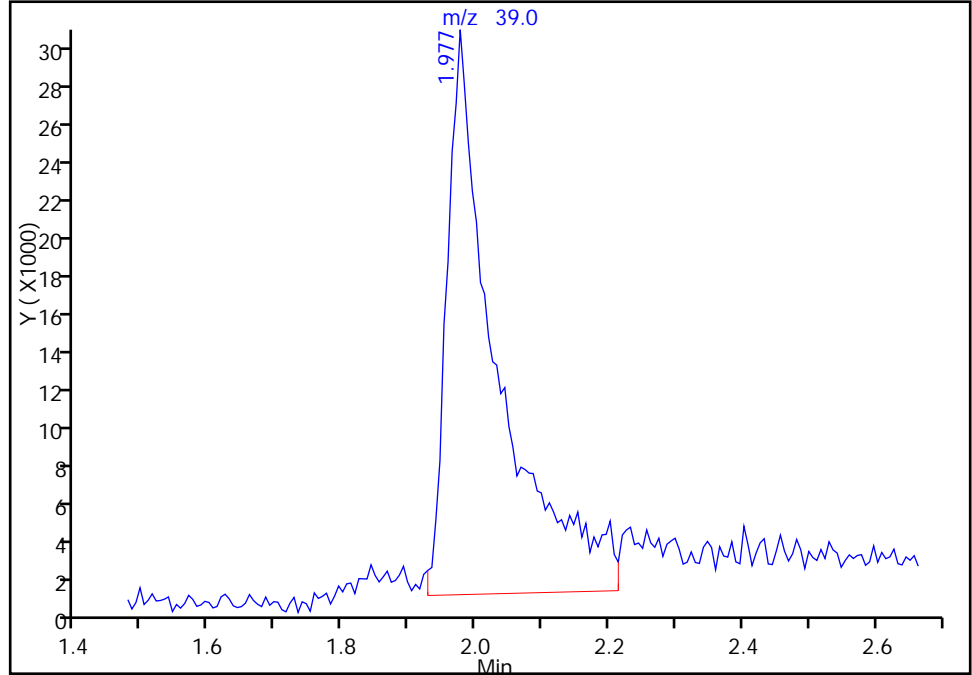
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D  
Injection Date: 08-Jun-2017 07:24:30 Instrument ID: CHHP5  
Lims ID: IC VSTD15  
Client ID:  
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

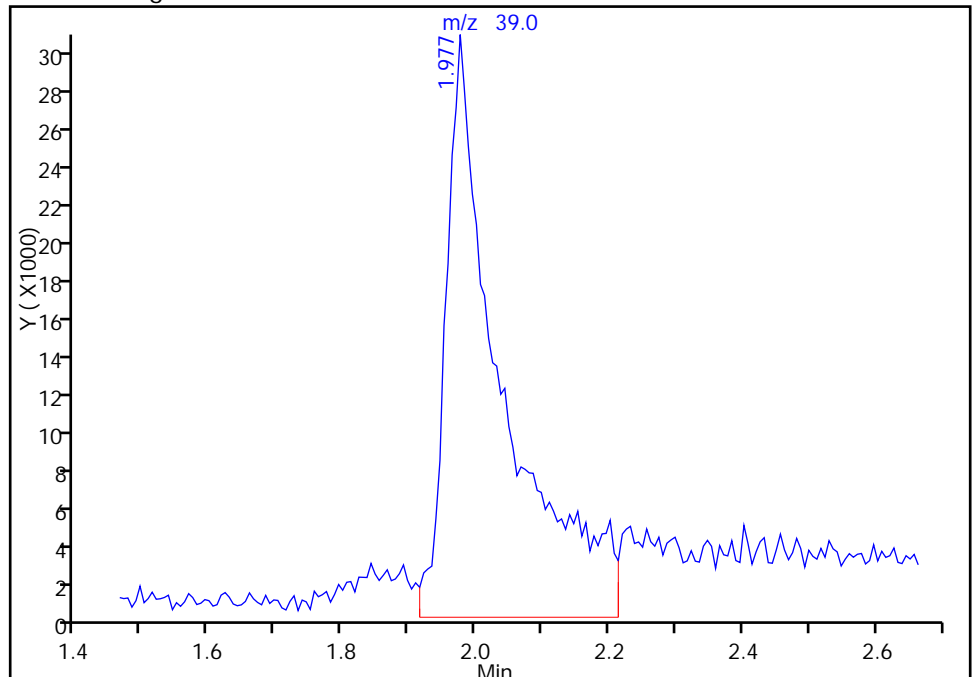
RT: 1.98  
Area: 150869  
Amount: 40.354776  
Amount Units: ng

Processing Integration Results



RT: 1.98  
Area: 175484  
Amount: 77.784364  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:16:23  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 08-Jun-2017 07:48:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-006  
 Misc. Info.: IC VSTD20  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:52:07 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 08:13:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.343	0.011	0	197193	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	98	351980	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.433	0.004	69	92814	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.781	-0.008	92	129379	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.611	6.612	-0.001	94	173538	100.0	96.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.983	-0.001	0	231495	100.0	93.3	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.979	0.004	93	707972	100.0	95.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.613	0.005	88	284175	100.0	96.4	
11 Dichlorodifluoromethane	85	1.616	1.630	-0.014	99	190995	100.0	100.1	
12 Chloromethane	50	1.829	1.831	-0.002	100	281148	100.0	92.2	
13 Vinyl chloride	62	1.945	1.940	0.005	97	236967	100.0	97.3	
14 Butadiene	39	1.981	1.977	0.004	93	219867	100.0	106.4	M
15 Bromomethane	94	2.310	2.311	-0.001	92	137007	100.0	105.6	
16 Chloroethane	64	2.432	2.451	-0.019	99	132369	100.0	95.8	
18 Trichlorofluoromethane	101	2.724	2.719	0.005	90	232367	100.0	96.8	
17 Dichlorofluoromethane	67	2.718	2.725	-0.007	93	325877	100.0	95.7	
20 Ethyl ether	59	3.119	3.108	0.011	94	198208	100.0	85.9	
21 Acrolein	56	3.302	3.297	0.005	99	141135	200.0	191.9	
22 1,1-Dichloroethene	96	3.411	3.400	0.011	96	186952	100.0	90.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.460	3.455	0.005	91	194019	100.0	114.0	
24 Acetone	43	3.514	3.510	0.004	99	327588	200.0	204.6	
25 Iodomethane	142	3.606	3.601	0.005	97	309287	100.0	101.4	
26 Carbon disulfide	76	3.691	3.686	0.005	100	558362	100.0	98.1	
28 3-Chloro-1-propene	76	3.983	3.990	-0.007	90	162702	100.0	95.1	
30 Methyl acetate	43	4.019	4.015	0.004	99	536456	200.0	200.5	
31 Methylene Chloride	84	4.208	4.209	-0.001	98	240190	100.0	97.7	
32 2-Methyl-2-propanol	59	4.482	4.471	0.011	98	279075	1000.0	1134.3	
33 Acrylonitrile	53	4.597	4.593	0.005	99	1254097	1000.0	1015.3	
34 trans-1,2-Dichloroethene	96	4.634	4.623	0.011	96	235005	100.0	96.9	
35 Methyl tert-butyl ether	73	4.646	4.635	0.011	99	740346	100.0	101.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.047	5.043	0.004	95	414201	100.0	97.1	
37 1,1-Dichloroethane	63	5.260	5.256	0.004	96	449645	100.0	98.1	
38 Vinyl acetate	43	5.309	5.310	-0.001	97	621774	100.0	92.9	
44 2,2-Dichloropropane	97	5.997	5.992	0.004	59	59858	100.0	97.5	
45 cis-1,2-Dichloroethene	96	6.003	6.004	-0.001	83	263920	100.0	97.7	
46 2-Butanone (MEK)	43	6.015	6.010	0.005	99	440384	200.0	192.0	
49 Chlorobromomethane	128	6.289	6.284	0.004	93	111165	100.0	93.3	
51 Tetrahydrofuran	42	6.301	6.296	0.005	91	230737	200.0	199.3	
52 Chloroform	83	6.428	6.430	-0.002	96	393090	100.0	96.7	
53 1,1,1-Trichloroethane	97	6.587	6.594	-0.007	97	312138	100.0	94.7	
54 Cyclohexane	56	6.660	6.655	0.005	94	494683	100.0	100.8	
56 Carbon tetrachloride	117	6.757	6.758	-0.001	96	280114	100.0	96.7	
55 1,1-Dichloropropene	75	6.775	6.776	-0.001	92	338006	100.0	97.5	
57 Isobutyl alcohol	41	6.976	6.977	-0.001	95	308653	2500.0	2530.0	
58 Benzene	78	6.988	6.989	-0.001	98	989799	100.0	97.8	
59 1,2-Dichloroethane	62	7.067	7.068	-0.001	96	323970	100.0	97.3	
62 n-Heptane	43	7.353	7.348	0.005	96	368639	100.0	94.8	
64 Trichloroethene	130	7.724	7.719	0.005	97	246005	100.0	99.3	
66 Methylcyclohexane	83	7.955	7.957	-0.002	95	408182	100.0	96.8	
67 1,2-Dichloropropane	63	7.992	7.993	-0.001	97	273710	100.0	97.3	
68 Dibromomethane	93	8.083	8.078	0.005	95	139250	100.0	95.9	
70 1,4-Dioxane	88	8.077	8.084	-0.007	40	54731	2000.0	2076.8	
71 Dichlorobromomethane	83	8.278	8.273	0.005	98	292391	100.0	95.0	
73 2-Chloroethyl vinyl ether	63	8.576	8.577	-0.001	92	378146	200.0	199.8	
74 cis-1,3-Dichloropropene	75	8.722	8.717	0.005	92	403451	100.0	98.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.874	8.875	-0.001	98	771359	200.0	190.8	
76 Toluene	91	9.050	9.052	-0.002	98	1049056	100.0	97.0	
77 trans-1,3-Dichloropropene	75	9.294	9.295	-0.001	98	358629	100.0	97.8	
78 Ethyl methacrylate	69	9.355	9.356	-0.001	93	381934	100.0	98.1	
79 1,1,2-Trichloroethane	97	9.488	9.496	-0.008	92	214004	100.0	97.9	
80 Tetrachloroethene	164	9.561	9.563	-0.002	98	202692	100.0	98.0	
81 1,3-Dichloropropane	76	9.647	9.648	-0.001	97	386392	100.0	100.3	
82 2-Hexanone	43	9.707	9.709	-0.002	98	628179	200.0	195.8	
84 Chlorodibromomethane	129	9.860	9.861	-0.001	92	204939	100.0	96.7	
85 Ethylene Dibromide	107	9.975	9.976	-0.001	99	211108	100.0	97.5	
86 3-Chlorobenzotrifluoride	180	10.437	10.439	-0.002	93	377102	100.0	101.9	
87 Chlorobenzene	112	10.462	10.463	-0.001	93	663544	100.0	96.4	
88 4-Chlorobenzotrifluoride	180	10.523	10.524	-0.001	96	358041	100.0	101.2	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.554	-0.001	93	229696	100.0	98.2	
90 Ethylbenzene	106	10.559	10.560	-0.001	99	366730	100.0	96.6	
91 m-Xylene & p-Xylene	106	10.693	10.694	-0.001	0	455089	100.0	97.8	
92 o-Xylene	106	11.076	11.071	0.005	97	441909	100.0	96.5	
93 Styrene	104	11.094	11.096	-0.002	95	754852	100.0	96.9	
94 Bromoform	173	11.277	11.278	-0.001	97	145882	100.0	96.9	
96 2-Chlorobenzotrifluoride	180	11.344	11.345	-0.001	98	372804	100.0	100.6	
97 Isopropylbenzene	105	11.441	11.442	-0.001	97	1097412	100.0	97.7	
99 1,1,2,2-Tetrachloroethane	83	11.758	11.753	0.005	80	298732	100.0	100.3	
100 Bromobenzene	156	11.758	11.753	0.005	94	266448	100.0	98.4	
102 trans-1,4-Dichloro-2-buten	53	11.794	11.795	-0.001	85	106219	100.0	99.0	
101 1,2,3-Trichloropropane	110	11.812	11.814	-0.002	86	94031	100.0	102.9	
103 N-Propylbenzene	120	11.861	11.856	0.005	99	307590	100.0	97.0	
104 2-Chlorotoluene	126	11.946	11.947	-0.001	96	257123	100.0	96.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.013	12.008	0.005	96	293533	100.0	101.9	
106 1,3,5-Trimethylbenzene	105	12.043	12.045	-0.002	94	887312	100.0	97.7	
107 4-Chlorotoluene	126	12.068	12.069	-0.001	98	266448	100.0	95.7	
108 tert-Butylbenzene	119	12.354	12.355	-0.001	94	763225	100.0	96.9	
110 1,2,4-Trimethylbenzene	105	12.415	12.416	-0.001	97	909030	100.0	98.7	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.458	-0.001	98	282839	100.0	102.6	
112 sec-Butylbenzene	105	12.579	12.580	-0.001	95	1045329	100.0	97.6	
113 1,3-Dichlorobenzene	146	12.700	12.696	0.004	98	493151	100.0	98.3	
114 4-Isopropyltoluene	119	12.737	12.738	-0.001	96	908837	100.0	98.5	
115 1,4-Dichlorobenzene	146	12.798	12.799	-0.001	95	502172	100.0	97.3	
116 2,4-Dichloro-1-(trifluorom	214	12.828	12.830	-0.002	97	253790	100.0	98.5	
118 2,5-Dichlorobenzotrifluori	214	12.871	12.872	-0.001	0	301944	100.0	105.1	
120 n-Butylbenzene	91	13.145	13.146	-0.001	97	773393	100.0	97.8	
121 1,2-Dichlorobenzene	146	13.157	13.158	-0.001	97	470610	100.0	99.9	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.955	-0.007	84	63264	100.0	101.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.094	14.095	-0.001	0	1047544	300.0	305.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.513	14.515	-0.002	0	732216	200.0	202.4	
126 1,2,4-Trichlorobenzene	180	14.775	14.776	-0.001	94	260096	100.0	97.1	
127 Hexachlorobutadiene	225	14.921	14.922	-0.001	95	114595	100.0	96.8	
128 Naphthalene	128	15.043	15.038	0.005	98	848811	100.0	100.3	
129 1,2,3-Trichlorobenzene	180	15.268	15.269	-0.001	94	243122	100.0	97.7	
131 2,4,5-Trichlorotoluene	159	16.034	16.036	-0.001	0	156547	100.0	101.7	
130 2,3,6-Trichlorotoluene	159	16.132	16.133	-0.001	96	135667	100.0	96.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		200.0	194.6	
S 133 Xylenes, Total	106				0		200.0	194.3	
S 135 1,3-Dichloropropene, Total	1				0		200.0	195.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 4.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 8.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 4.00	Units: uL
voaWKetmix1st_00003	Amount Added: 4.00	Units: uL
voaW2clev1stR_00008	Amount Added: 4.00	Units: uL
voaWVA1stRest_00015	Amount Added: 4.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 4.00	Units: uL



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D

Injection Date: 08-Jun-2017 07:48:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD20

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

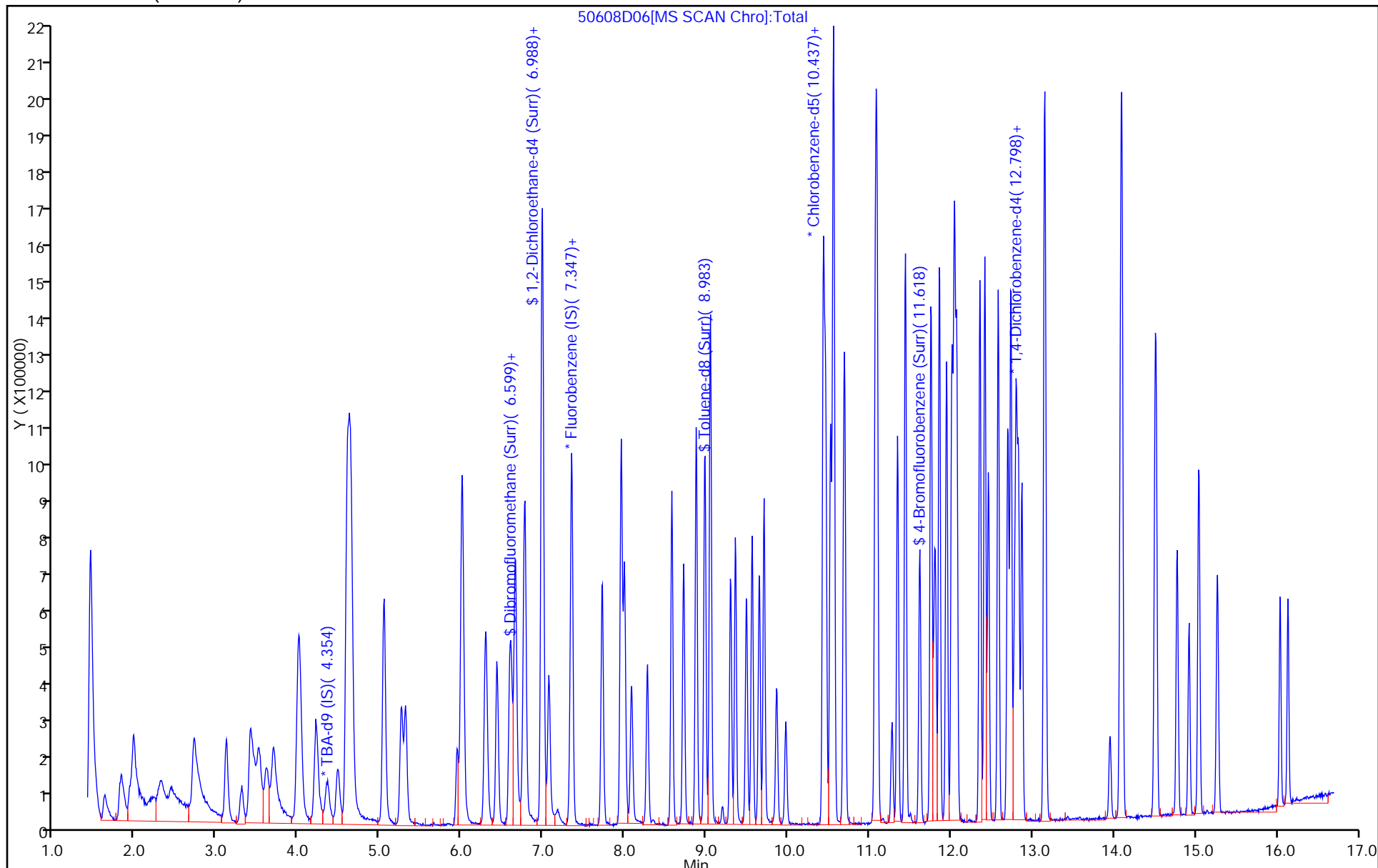
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

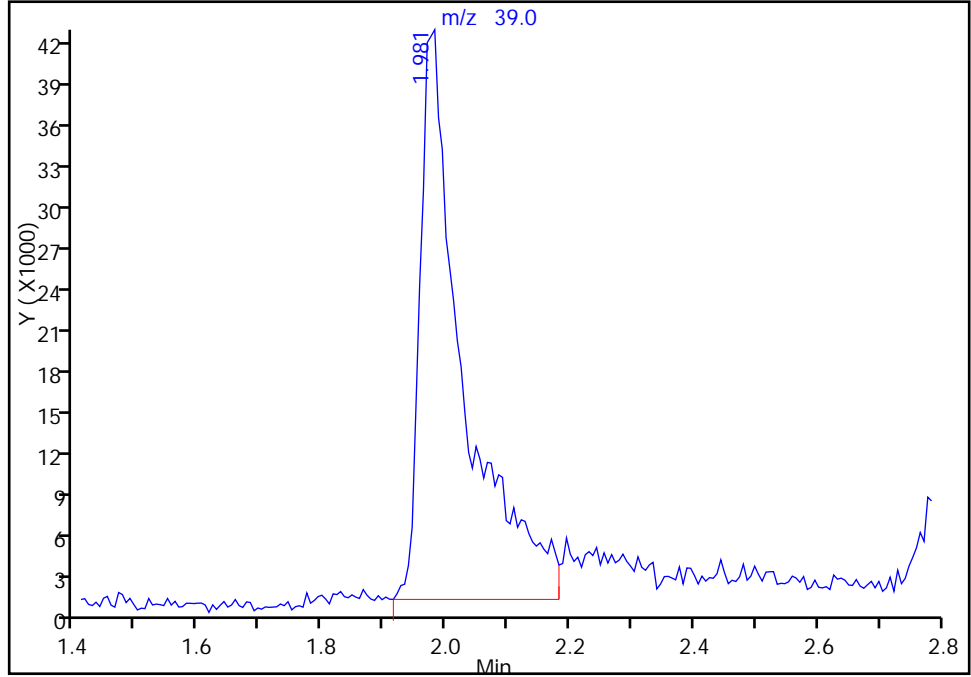
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D  
Injection Date: 08-Jun-2017 07:48:30 Instrument ID: CHHP5  
Lims ID: IC VSTD20  
Client ID:  
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

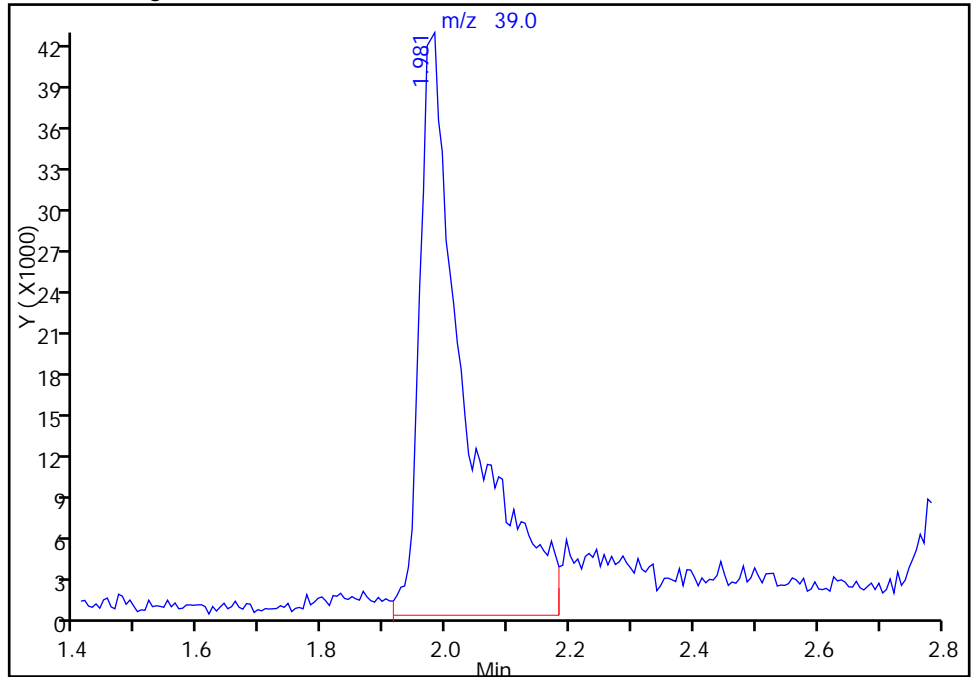
RT: 1.98  
Area: 202883  
Amount: 55.701377  
Amount Units: ng

Processing Integration Results



RT: 1.98  
Area: 219867  
Amount: 106.4441  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:17:04  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 08-Jun-2017 08:11:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-007  
 Misc. Info.: IC VSTD35  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:52:09 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 08:57:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.343	0.020	0	246279	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	98	313213	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	88	86638	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.776	12.781	-0.005	94	120475	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.614	6.612	0.002	94	297108	175.0	185.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.983	-0.004	0	402465	175.0	182.3	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	93	1190748	175.0	171.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.620	11.613	0.007	91	490170	175.0	178.1	
11 Dichlorodifluoromethane	85	1.619	1.630	-0.011	98	288265	175.0	169.9	
12 Chloromethane	50	1.826	1.831	-0.005	100	463847	175.0	171.0	
13 Vinyl chloride	62	1.942	1.940	0.002	98	381880	175.0	176.3	
14 Butadiene	39	1.978	1.977	0.001	93	322594	175.0	187.0	
15 Bromomethane	94	2.270	2.311	-0.041	91	193127	175.0	170.0	M
16 Chloroethane	64	2.428	2.451	-0.023	99	214850	175.0	178.4	
18 Trichlorofluoromethane	101	2.708	2.719	-0.011	89	407996	175.0	191.0	
17 Dichlorofluoromethane	67	2.714	2.725	-0.011	94	526510	175.0	178.8	
20 Ethyl ether	59	3.110	3.108	0.002	95	378438	175.0	184.2	
21 Acrolein	56	3.292	3.297	-0.005	99	176433	225.0	269.5	
22 1,1-Dichloroethene	96	3.402	3.400	0.002	95	355274	175.0	193.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.463	3.455	0.008	92	308123	175.0	203.4	
24 Acetone	43	3.511	3.510	0.001	99	441614	350.0	363.4	
25 Iodomethane	142	3.602	3.601	0.001	97	514836	175.0	189.7	
26 Carbon disulfide	76	3.682	3.686	-0.004	100	909550	175.0	179.5	
28 3-Chloro-1-propene	76	3.986	3.990	-0.004	88	269538	175.0	177.1	
30 Methyl acetate	43	4.016	4.015	0.001	99	869695	350.0	365.2	
31 Methylene Chloride	84	4.211	4.209	0.002	99	399535	175.0	182.7	
32 2-Methyl-2-propanol	59	4.497	4.471	0.026	98	504751	1750.0	1642.7	
33 Acrylonitrile	53	4.594	4.593	0.002	99	2037753	1750.0	1854.0	
34 trans-1,2-Dichloroethene	96	4.625	4.623	0.001	96	379604	175.0	175.8	
35 Methyl tert-butyl ether	73	4.643	4.635	0.008	99	1191395	175.0	183.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.038	5.043	-0.005	95	668602	175.0	176.2	
37 1,1-Dichloroethane	63	5.257	5.256	0.001	96	736757	175.0	180.5	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1093622	175.0	183.7	
44 2,2-Dichloropropane	97	5.993	5.992	0.001	92	98205	175.0	179.7	
45 cis-1,2-Dichloroethene	96	5.999	6.004	-0.005	84	440120	175.0	183.1	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	675747	350.0	331.1	
49 Chlorobromomethane	128	6.285	6.284	0.001	93	193171	175.0	182.1	
51 Tetrahydrofuran	42	6.304	6.296	0.008	94	375950	350.0	370.1	
52 Chloroform	83	6.431	6.430	0.001	96	636895	175.0	176.0	
53 1,1,1-Trichloroethane	97	6.589	6.594	-0.005	98	516491	175.0	176.1	
54 Cyclohexane	56	6.656	6.655	0.001	94	778625	175.0	178.3	
56 Carbon tetrachloride	117	6.760	6.758	0.002	96	448401	175.0	173.9	
55 1,1-Dichloropropene	75	6.772	6.776	-0.004	93	546560	175.0	177.3	
57 Isobutyl alcohol	41	6.979	6.977	0.002	96	500943	4375.0	4614.4	
58 Benzene	78	6.991	6.989	0.002	98	1577529	175.0	175.2	
59 1,2-Dichloroethane	62	7.064	7.068	-0.004	97	537767	175.0	181.4	
62 n-Heptane	43	7.350	7.348	0.002	96	603889	175.0	174.6	
64 Trichloroethene	130	7.721	7.719	0.002	98	400484	175.0	181.6	
66 Methylcyclohexane	83	7.952	7.957	-0.005	96	657704	175.0	175.4	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	438885	175.0	175.3	
68 Dibromomethane	93	8.080	8.078	0.002	94	226707	175.0	175.4	
70 1,4-Dioxane	88	8.080	8.084	-0.004	40	88641	3500.0	3779.9	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	495018	175.0	180.7	
73 2-Chloroethyl vinyl ether	63	8.579	8.577	0.002	93	617167	350.0	366.4	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	667160	175.0	182.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.875	0.002	97	1277910	350.0	338.7	
76 Toluene	91	9.047	9.052	-0.005	98	1681283	175.0	166.5	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	591362	175.0	172.8	
78 Ethyl methacrylate	69	9.357	9.356	0.001	93	626604	175.0	172.3	
79 1,1,2-Trichloroethane	97	9.491	9.496	-0.005	92	350713	175.0	171.9	
80 Tetrachloroethene	164	9.558	9.563	-0.005	98	331372	175.0	171.6	
81 1,3-Dichloropropane	76	9.649	9.648	0.001	97	619625	175.0	172.3	
82 2-Hexanone	43	9.704	9.709	-0.005	98	978798	350.0	326.8	
84 Chlorodibromomethane	129	9.862	9.861	0.001	91	346026	175.0	175.0	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	341661	175.0	169.0	
86 3-Chlorobenzotrifluoride	180	10.434	10.439	-0.005	94	614470	175.0	177.8	
87 Chlorobenzene	112	10.465	10.463	0.002	94	1087528	175.0	169.3	
88 4-Chlorobenzotrifluoride	180	10.525	10.524	0.001	96	584269	175.0	176.9	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	95	376787	175.0	172.6	
90 Ethylbenzene	106	10.562	10.560	0.002	98	606102	175.0	171.1	
91 m-Xylene & p-Xylene	106	10.696	10.694	0.002	0	748663	175.0	172.4	
92 o-Xylene	106	11.073	11.071	0.002	97	724488	175.0	169.6	
93 Styrene	104	11.097	11.096	0.001	95	1229204	175.0	169.1	
94 Bromoform	173	11.280	11.278	0.002	98	246235	175.0	175.2	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	98	610154	175.0	176.4	
97 Isopropylbenzene	105	11.444	11.442	0.002	97	1739655	175.0	166.0	
100 Bromobenzene	156	11.754	11.753	0.001	96	437254	175.0	173.3	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	79	470241	175.0	169.2	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	88	177867	175.0	178.0	
101 1,2,3-Trichloropropane	110	11.809	11.814	-0.005	88	151444	175.0	179.6	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	503370	175.0	170.5	
104 2-Chlorotoluene	126	11.949	11.947	0.002	96	429562	175.0	172.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	95	465106	175.0	173.4	
106 1,3,5-Trimethylbenzene	105	12.040	12.045	-0.005	94	1417182	175.0	167.5	
107 4-Chlorotoluene	126	12.071	12.069	0.002	97	461546	175.0	178.0	
108 tert-Butylbenzene	119	12.357	12.355	0.002	94	1229844	175.0	167.7	
110 1,2,4-Trimethylbenzene	105	12.417	12.416	0.001	97	1444257	175.0	168.5	
111 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	99	452248	175.0	176.2	
112 sec-Butylbenzene	105	12.582	12.580	0.002	95	1671080	175.0	167.5	
113 1,3-Dichlorobenzene	146	12.697	12.696	0.001	97	809393	175.0	173.3	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1443989	175.0	168.1	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	94	818434	175.0	170.3	
116 2,4-Dichloro-1-(trifluorom	214	12.831	12.830	0.001	96	422533	175.0	176.1	
118 2,5-Dichlorobenzotrifluori	214	12.874	12.872	0.002	0	469476	175.0	175.5	
120 n-Butylbenzene	91	13.147	13.146	0.001	97	1246354	175.0	169.3	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	96	749586	175.0	170.9	
122 1,2-Dibromo-3-Chloropropan	75	13.950	13.955	-0.005	83	101450	175.0	178.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.090	14.095	-0.005	0	1625773	525.0	509.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.515	-0.005	0	1157680	350.0	343.6	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	429547	175.0	172.2	
127 Hexachlorobutadiene	225	14.918	14.922	-0.004	95	187630	175.0	170.2	
128 Naphthalene	128	15.039	15.038	0.001	98	1347013	175.0	170.9	
129 1,2,3-Trichlorobenzene	180	15.264	15.269	-0.005	95	400531	175.0	172.9	
131 2,4,5-Trichlorotoluene	159	16.037	16.036	0.002	0	241394	175.0	168.5	
130 2,3,6-Trichlorotoluene	159	16.134	16.133	0.001	96	217169	175.0	166.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	341.9	
S 134 1,2-Dichloroethene, Total	96				0		350.0	358.9	
S 135 1,3-Dichloropropene, Total	1				0		350.0	355.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 7.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 9.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 7.00	Units: uL
voaWKetmix1st_00003	Amount Added: 7.00	Units: uL
voaW2clev1stR_00008	Amount Added: 7.00	Units: uL
voaWVA1stRest_00015	Amount Added: 7.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 7.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D

Injection Date: 08-Jun-2017 08:11:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD35

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

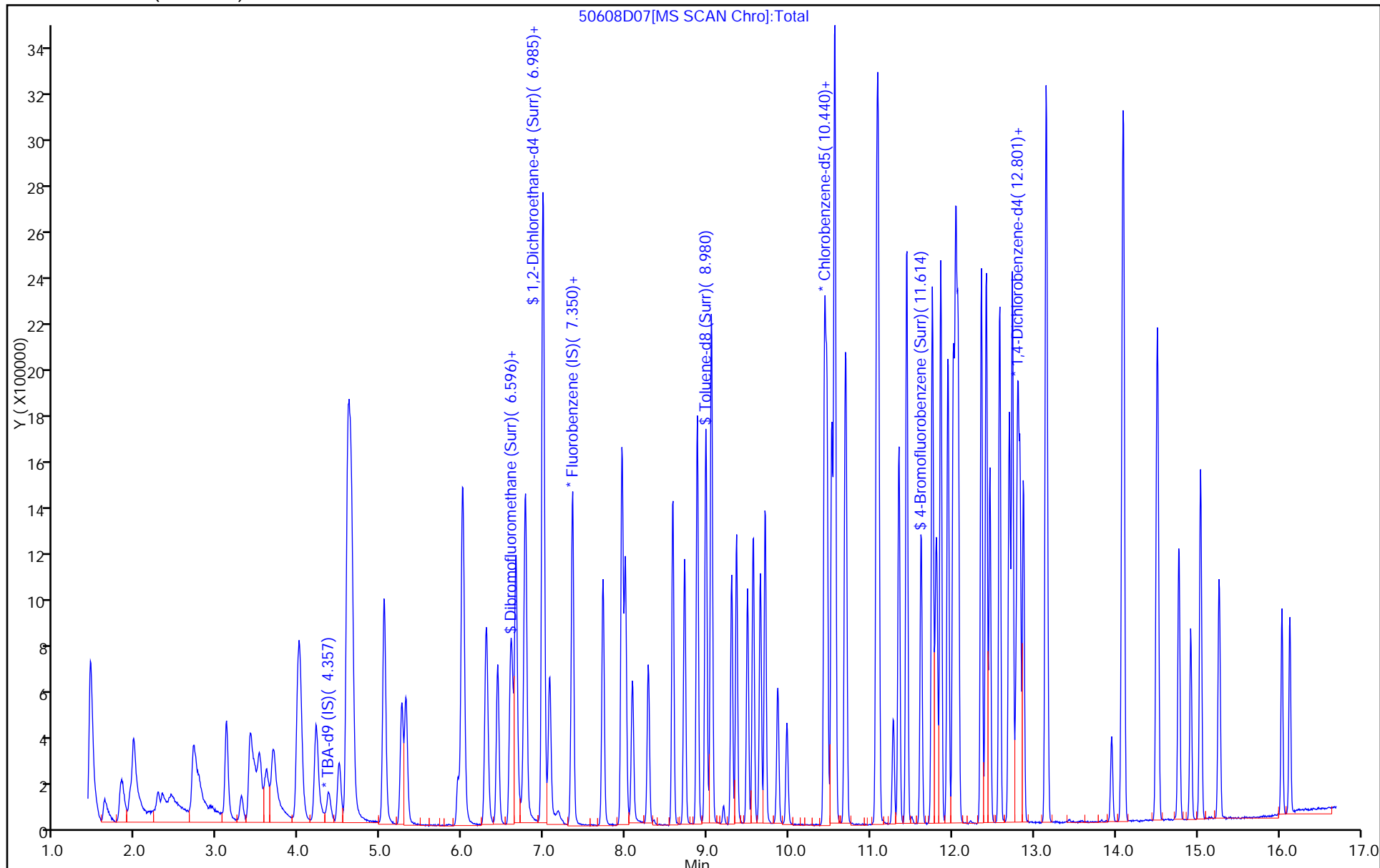
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

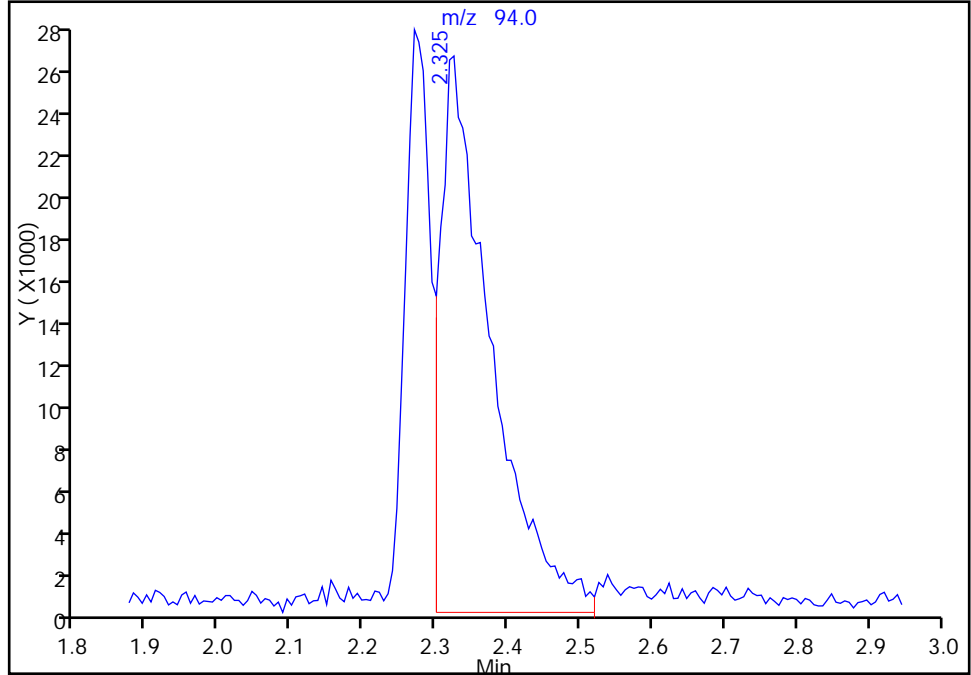
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Injection Date: 08-Jun-2017 08:11:30 Instrument ID: CHHP5  
Lims ID: IC VSTD35  
Client ID:  
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

Signal: 1

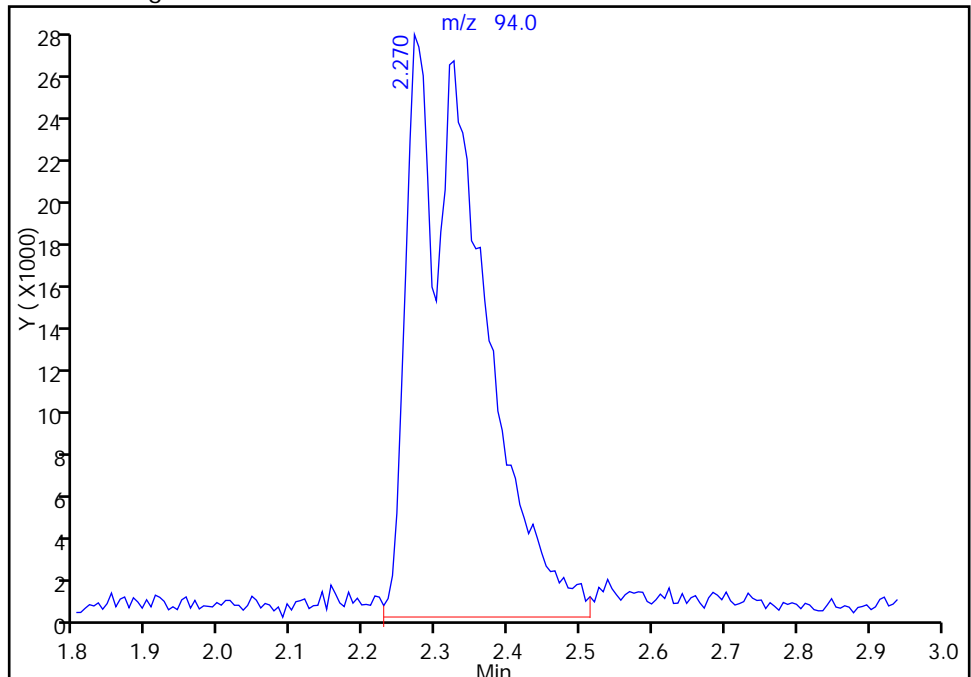
RT: 2.32  
Area: 129320  
Amount: 105.6042  
Amount Units: ng

Processing Integration Results



RT: 2.27  
Area: 193127  
Amount: 170.0468  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:55:59

Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D08.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 08-Jun-2017 08:35:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-008  
 Misc. Info.: IC VSTD40  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:52:11 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 08:58:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.343	0.020	0	219952	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	98	322706	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	53	95100	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.781	-0.005	91	122807	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.608	6.612	-0.004	94	336435	200.0	203.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.983	0.002	0	452860	200.0	199.1	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	93	1333199	200.0	175.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.613	0.002	89	556606	200.0	184.3	
11 Dichlorodifluoromethane	85	1.626	1.630	-0.004	99	320286	200.0	183.2	
12 Chloromethane	50	1.826	1.831	-0.005	100	503528	200.0	180.2	
13 Vinyl chloride	62	1.942	1.940	0.002	98	416057	200.0	186.4	
14 Butadiene	39	1.972	1.977	-0.005	93	331808	200.0	186.6	
15 Bromomethane	94	2.313	2.311	0.002	90	199546	200.0	170.5	
16 Chloroethane	64	2.441	2.451	-0.010	99	242959	200.0	196.3	
18 Trichlorofluoromethane	101	2.714	2.719	-0.005	88	443285	200.0	201.4	
17 Dichlorofluoromethane	67	2.714	2.725	-0.011	94	619199	200.0	205.0	
20 Ethyl ether	59	3.110	3.108	0.002	96	427535	200.0	202.0	
21 Acrolein	56	3.292	3.297	-0.005	98	186572	250.0	276.6	
22 1,1-Dichloroethene	96	3.408	3.400	0.008	96	410531	200.0	217.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.451	3.455	-0.004	91	326722	200.0	209.3	
24 Acetone	43	3.511	3.510	0.001	99	462297	400.0	373.4	
25 Iodomethane	142	3.603	3.601	0.002	98	581438	200.0	207.9	
26 Carbon disulfide	76	3.688	3.686	0.002	100	1034498	200.0	198.2	
28 3-Chloro-1-propene	76	3.992	3.990	0.002	90	325365	200.0	207.5	
30 Methyl acetate	43	4.016	4.015	0.001	99	1054265	400.0	429.7	
31 Methylene Chloride	84	4.211	4.209	0.002	98	426256	200.0	189.1	
32 2-Methyl-2-propanol	59	4.485	4.471	0.014	98	469244	2000.0	1710.0	
33 Acrylonitrile	53	4.594	4.593	0.002	99	2193876	2000.0	1937.3	
34 trans-1,2-Dichloroethene	96	4.625	4.623	0.002	96	398038	200.0	178.9	
35 Methyl tert-butyl ether	73	4.643	4.635	0.008	99	1279855	200.0	191.7	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.038	5.043	-0.005	95	675938	200.0	172.9	
37 1,1-Dichloroethane	63	5.257	5.256	0.001	96	853476	200.0	203.0	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1233778	200.0	201.1	
44 2,2-Dichloropropane	97	6.000	5.992	0.008	93	106967	200.0	190.0	
45 cis-1,2-Dichloroethene	96	6.000	6.004	-0.004	84	491702	200.0	198.5	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	732742	400.0	348.5	
49 Chlorobromomethane	128	6.285	6.284	0.001	94	218627	200.0	200.0	
51 Tetrahydrofuran	42	6.298	6.296	0.002	91	424882	400.0	406.5	
52 Chloroform	83	6.431	6.430	0.001	95	725704	200.0	194.6	
53 1,1,1-Trichloroethane	97	6.584	6.594	-0.010	98	560443	200.0	185.4	
54 Cyclohexane	56	6.657	6.655	0.002	94	876870	200.0	194.9	
56 Carbon tetrachloride	117	6.760	6.758	0.002	96	503927	200.0	189.7	
55 1,1-Dichloropropene	75	6.772	6.776	-0.004	93	612031	200.0	192.6	
57 Isobutyl alcohol	41	6.979	6.977	0.002	93	553306	5000.0	4946.8	
58 Benzene	78	6.991	6.989	0.002	99	1788795	200.0	192.8	
59 1,2-Dichloroethane	62	7.070	7.068	0.002	96	620368	200.0	203.2	
62 n-Heptane	43	7.350	7.348	0.002	95	655443	200.0	183.9	
64 Trichloroethene	130	7.721	7.719	0.002	97	445239	200.0	196.0	
66 Methylcyclohexane	83	7.952	7.957	-0.005	96	724486	200.0	187.5	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	513159	200.0	198.9	
68 Dibromomethane	93	8.080	8.078	0.002	95	263730	200.0	198.1	
70 1,4-Dioxane	88	8.080	8.084	-0.004	40	104236	4000.0	4314.1	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	570917	200.0	202.2	
73 2-Chloroethyl vinyl ether	63	8.579	8.577	0.002	93	706913	400.0	407.4	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	762600	200.0	202.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.875	0.002	97	1449023	400.0	349.9	
76 Toluene	91	9.047	9.052	-0.005	97	1880344	200.0	169.6	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	683392	200.0	181.9	
78 Ethyl methacrylate	69	9.358	9.356	0.002	93	716406	200.0	179.5	
79 1,1,2-Trichloroethane	97	9.491	9.496	-0.005	92	401520	200.0	179.3	
80 Tetrachloroethene	164	9.558	9.563	-0.005	98	372604	200.0	175.7	
81 1,3-Dichloropropane	76	9.650	9.648	0.002	97	720290	200.0	182.5	
82 2-Hexanone	43	9.704	9.709	-0.005	97	1071544	400.0	326.0	
84 Chlorodibromomethane	129	9.863	9.861	0.002	91	397752	200.0	183.2	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	398884	200.0	179.8	
86 3-Chlorobenzotrifluoride	180	10.434	10.439	-0.005	91	709603	200.0	187.1	
87 Chlorobenzene	112	10.465	10.463	0.002	96	1240825	200.0	176.0	
88 4-Chlorobenzotrifluoride	180	10.526	10.524	0.002	96	672658	200.0	185.6	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	96	432680	200.0	180.6	
90 Ethylbenzene	106	10.562	10.560	0.002	99	676281	200.0	173.9	
91 m-Xylene & p-Xylene	106	10.696	10.694	0.002	0	850193	200.0	178.3	
92 o-Xylene	106	11.073	11.071	0.002	97	816773	200.0	174.1	
93 Styrene	104	11.097	11.096	0.001	95	1401938	200.0	175.7	
94 Bromoform	173	11.274	11.278	-0.004	97	286980	200.0	186.0	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	96	691733	200.0	182.2	
97 Isopropylbenzene	105	11.444	11.442	0.002	97	1945195	200.0	169.1	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	94	552518	200.0	181.1	
100 Bromobenzene	156	11.754	11.753	0.001	96	504414	200.0	196.2	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	86	203354	200.0	199.7	
101 1,2,3-Trichloropropane	110	11.809	11.814	-0.005	85	174213	200.0	202.9	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	566124	200.0	188.1	
104 2-Chlorotoluene	126	11.949	11.947	0.002	97	489826	200.0	192.9	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	95	536156	200.0	196.1	
106 1,3,5-Trimethylbenzene	105	12.040	12.045	-0.005	95	1602983	200.0	185.9	
107 4-Chlorotoluene	126	12.071	12.069	0.002	97	515598	200.0	195.0	
108 tert-Butylbenzene	119	12.357	12.355	0.002	94	1375238	200.0	183.9	
110 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	97	1628727	200.0	186.4	
111 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	99	522959	200.0	199.9	
112 sec-Butylbenzene	105	12.582	12.580	0.002	95	1846550	200.0	181.6	
113 1,3-Dichlorobenzene	146	12.697	12.696	0.001	97	922963	200.0	193.9	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1609019	200.0	183.8	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	94	946901	200.0	193.3	
116 2,4-Dichloro-1-(trifluorom	214	12.831	12.830	0.001	96	497310	200.0	203.3	
118 2,5-Dichlorobenzotrifluori	214	12.868	12.872	-0.004	0	547248	200.0	200.7	
120 n-Butylbenzene	91	13.142	13.146	-0.004	97	1382118	200.0	184.2	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	97	864638	200.0	193.3	
122 1,2-Dibromo-3-Chloropropan	75	13.951	13.955	-0.004	84	119400	200.0	206.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.095	-0.004	0	1870903	600.0	574.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.515	-0.005	0	1323377	400.0	385.3	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	497586	200.0	195.7	
127 Hexachlorobutadiene	225	14.924	14.922	0.002	97	205503	200.0	182.8	
128 Naphthalene	128	15.040	15.038	0.002	98	1545157	200.0	192.3	
129 1,2,3-Trichlorobenzene	180	15.265	15.269	-0.004	95	462732	200.0	196.0	
131 2,4,5-Trichlorotoluene	159	16.037	16.036	0.002	0	280260	200.0	191.9	
130 2,3,6-Trichlorotoluene	159	16.135	16.133	0.002	97	254778	200.0	191.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	377.5	
S 133 Xylenes, Total	106				0		400.0	352.5	
S 135 1,3-Dichloropropene, Total	1				0		400.0	384.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOAPRI_00255	Amount Added: 8.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 10.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 8.00	Units: uL
voaWKetmix1st_00003	Amount Added: 8.00	Units: uL
voaW2clev1stR_00008	Amount Added: 8.00	Units: uL
voaWVA1stRest_00015	Amount Added: 8.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 8.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D08.D

Injection Date: 08-Jun-2017 08:35:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD40

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

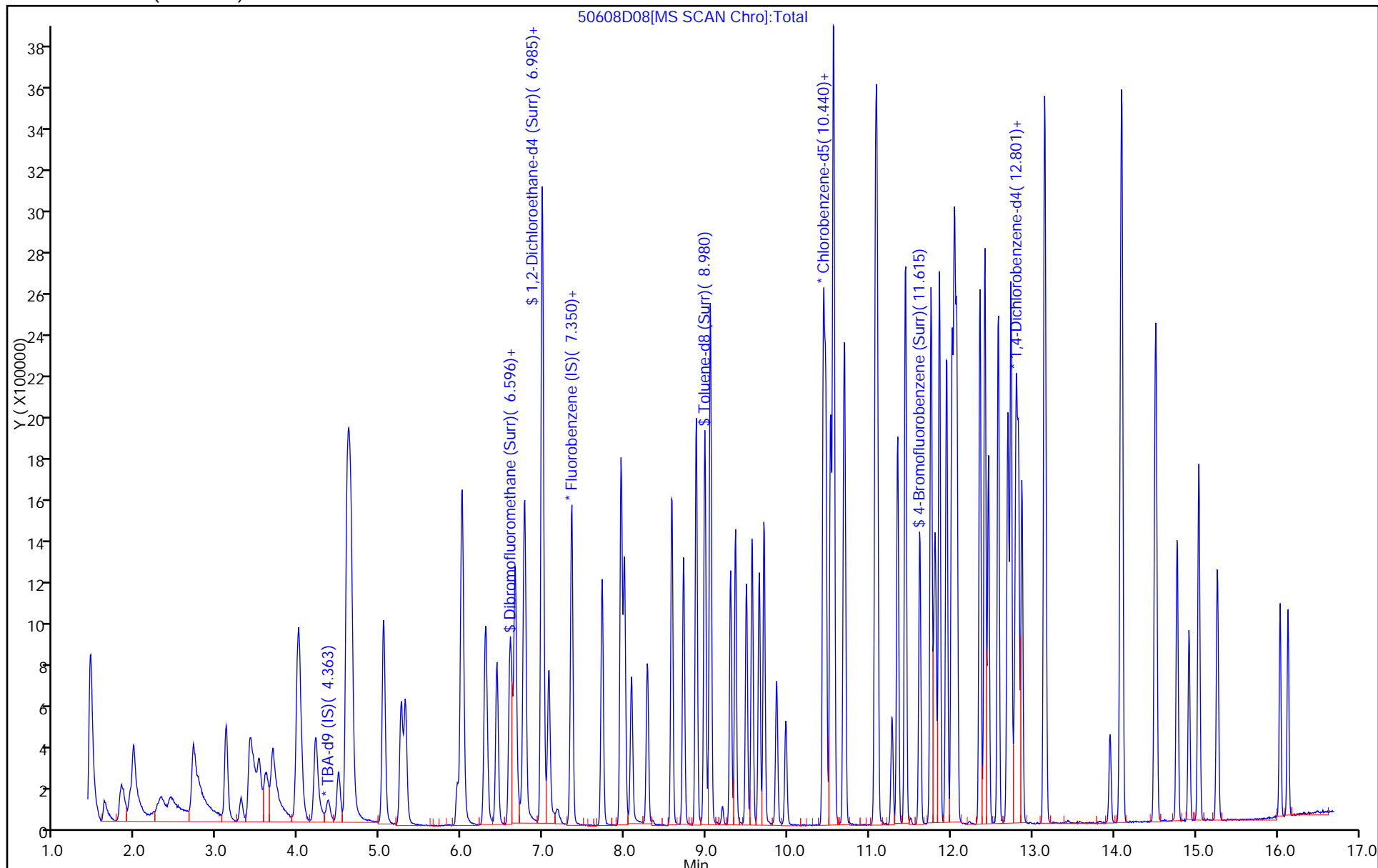
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 08-Jun-2017 08:59:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-009  
 Misc. Info.: IC VSTD50  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:52:14 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 09-Jun-2017 03:09:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.376	4.343	0.033	0	225322	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	99	325167	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.433	0.002	61	93222	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.781	-0.004	93	126931	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.608	6.612	-0.004	94	412655	250.0	248.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.983	-0.004	0	548631	250.0	239.3	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.979	0.002	93	1616941	250.0	216.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.613	0.002	88	681987	250.0	230.3	
11 Dichlorodifluoromethane	85	1.620	1.630	-0.010	98	383674	250.0	217.8	
12 Chloromethane	50	1.821	1.831	-0.010	99	660580	250.0	234.6	
13 Vinyl chloride	62	1.936	1.940	-0.004	97	544552	250.0	242.1	
14 Butadiene	39	1.979	1.977	0.002	93	463060	250.0	265.3	
15 Bromomethane	94	2.289	2.311	-0.022	90	228806	250.0	194.7	
16 Chloroethane	64	2.423	2.451	-0.028	99	284483	250.0	228.8	
18 Trichlorofluoromethane	101	2.709	2.719	-0.010	88	500610	250.0	225.8	
17 Dichlorofluoromethane	67	2.709	2.725	-0.016	93	684695	250.0	225.6	
20 Ethyl ether	59	3.110	3.108	0.002	94	425913	250.0	199.7	
21 Acrolein	56	3.293	3.297	-0.004	99	163186	275.0	240.1	
22 1,1-Dichloroethene	96	3.402	3.400	0.002	97	420571	250.0	221.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.445	3.455	-0.010	94	367239	250.0	233.5	M
24 Acetone	43	3.518	3.510	0.008	100	540944	500.0	519.9	
25 Iodomethane	142	3.597	3.601	-0.004	98	662319	250.0	235.1	
26 Carbon disulfide	76	3.688	3.686	0.002	99	1147403	250.0	218.1	
28 3-Chloro-1-propene	76	3.986	3.990	-0.004	90	373044	250.0	236.1	
30 Methyl acetate	43	4.017	4.015	0.002	99	1222074	500.0	494.4	
31 Methylene Chloride	84	4.211	4.209	0.002	99	547979	250.0	241.3	
32 2-Methyl-2-propanol	59	4.497	4.471	0.026	98	800812	2500.0	2848.7	
33 Acrylonitrile	53	4.595	4.593	0.003	98	2839818	2500.0	2488.7	
34 trans-1,2-Dichloroethene	96	4.619	4.623	-0.004	97	514686	250.0	229.6	
35 Methyl tert-butyl ether	73	4.649	4.635	0.014	99	1662995	250.0	247.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.039	5.043	-0.004	95	881434	250.0	223.8	
37 1,1-Dichloroethane	63	5.252	5.256	-0.004	96	1006985	250.0	237.7	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1478910	250.0	239.3	
44 2,2-Dichloropropane	97	6.000	5.992	0.008	90	123055	250.0	216.9	
45 cis-1,2-Dichloroethene	96	6.000	6.004	-0.004	84	609918	250.0	244.4	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	942332	500.0	444.8	
49 Chlorobromomethane	128	6.286	6.284	0.002	93	266776	250.0	242.2	
51 Tetrahydrofuran	42	6.304	6.296	0.008	91	517849	500.0	493.0	
52 Chloroform	83	6.432	6.430	0.002	95	888887	250.0	236.6	
53 1,1,1-Trichloroethane	97	6.590	6.594	-0.004	98	679603	250.0	223.2	
54 Cyclohexane	56	6.657	6.655	0.002	94	1057958	250.0	233.3	
56 Carbon tetrachloride	117	6.754	6.758	-0.004	95	600003	250.0	224.2	
55 1,1-Dichloropropene	75	6.773	6.776	-0.004	92	725621	250.0	226.7	
57 Isobutyl alcohol	41	6.985	6.977	0.008	98	670610	6250.0	5950.2	
58 Benzene	78	6.992	6.989	0.003	97	2136842	250.0	228.5	
59 1,2-Dichloroethane	62	7.071	7.068	0.003	96	751563	250.0	244.3	
62 n-Heptane	43	7.350	7.348	0.002	95	782163	250.0	217.8	
64 Trichloroethene	130	7.722	7.719	0.003	98	544845	250.0	238.0	
66 Methylcyclohexane	83	7.953	7.957	-0.004	95	869390	250.0	223.3	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	623779	250.0	239.9	
68 Dibromomethane	93	8.080	8.078	0.002	94	323707	250.0	241.3	
70 1,4-Dioxane	88	8.080	8.084	-0.004	98	125075	5000.0	5137.5	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	679054	250.0	238.7	
73 2-Chloroethyl vinyl ether	63	8.573	8.577	-0.004	93	833749	500.0	476.8	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	917359	250.0	241.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.875	0.002	97	1715061	500.0	422.5	
76 Toluene	91	9.048	9.052	-0.004	97	2215068	250.0	203.8	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	814568	250.0	221.2	
78 Ethyl methacrylate	69	9.358	9.356	0.002	93	856567	250.0	218.9	
79 1,1,2-Trichloroethane	97	9.492	9.496	-0.004	92	480707	250.0	219.0	
80 Tetrachloroethene	164	9.559	9.563	-0.004	97	444805	250.0	214.0	
81 1,3-Dichloropropane	76	9.650	9.648	0.002	97	875399	250.0	226.2	
82 2-Hexanone	43	9.705	9.709	-0.004	97	1334896	500.0	414.3	
84 Chlorodibromomethane	129	9.863	9.861	0.002	91	482702	250.0	226.8	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	484529	250.0	222.8	
86 3-Chlorobenzotrifluoride	180	10.435	10.439	-0.004	93	816927	250.0	219.7	
87 Chlorobenzene	112	10.459	10.463	-0.004	92	1483014	250.0	214.6	
88 4-Chlorobenzotrifluoride	180	10.520	10.524	-0.004	95	777912	250.0	218.9	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	95	523309	250.0	222.8	
90 Ethylbenzene	106	10.563	10.560	0.003	98	819458	250.0	214.9	
91 m-Xylene & p-Xylene	106	10.690	10.694	-0.004	0	1032506	250.0	220.9	
92 o-Xylene	106	11.074	11.071	0.003	95	990376	250.0	215.4	
93 Styrene	104	11.098	11.096	0.002	95	1680161	250.0	214.8	
94 Bromoform	173	11.274	11.278	-0.004	97	342951	250.0	226.8	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	97	821958	250.0	220.8	
97 Isopropylbenzene	105	11.439	11.442	-0.003	97	2314258	250.0	205.2	
100 Bromobenzene	156	11.755	11.753	0.002	95	616854	250.0	232.1	
99 1,1,2,2-Tetrachloroethane	83	11.755	11.753	0.002	80	656224	250.0	219.4	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	84	245313	250.0	233.1	
101 1,2,3-Trichloropropane	110	11.810	11.814	-0.004	86	215879	250.0	243.7	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	698892	250.0	224.7	
104 2-Chlorotoluene	126	11.943	11.947	-0.004	96	593228	250.0	226.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	97	643177	250.0	227.5	
106 1,3,5-Trimethylbenzene	105	12.041	12.045	-0.004	97	1931146	250.0	216.6	
107 4-Chlorotoluene	126	12.071	12.069	0.002	96	633000	250.0	231.7	
108 tert-Butylbenzene	119	12.357	12.355	0.002	93	1658088	250.0	214.6	
110 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	97	2003753	250.0	221.9	
111 1,2-dichloro-4-(trifluorom	214	12.461	12.458	0.003	99	617023	250.0	228.2	
112 sec-Butylbenzene	105	12.576	12.580	-0.004	95	2236454	250.0	212.8	
113 1,3-Dichlorobenzene	146	12.698	12.696	0.002	97	1134229	250.0	230.5	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1942455	250.0	214.7	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	93	1155724	250.0	228.3	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.830	-0.004	96	595571	250.0	235.6	
118 2,5-Dichlorobenzotrifluori	214	12.868	12.872	-0.004	0	652964	250.0	231.7	
120 n-Butylbenzene	91	13.142	13.146	-0.004	97	1678668	250.0	216.5	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	96	1076711	250.0	232.9	
122 1,2-Dibromo-3-Chloropropan	75	13.951	13.955	-0.004	85	144187	250.0	242.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.095	-0.004	0	2325266	750.0	691.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.511	14.515	-0.004	0	1680279	500.0	473.3	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	652178	250.0	248.1	
127 Hexachlorobutadiene	225	14.918	14.922	-0.004	97	269040	250.0	231.6	
128 Naphthalene	128	15.040	15.038	0.002	98	1993798	250.0	240.0	
129 1,2,3-Trichlorobenzene	180	15.265	15.269	-0.004	95	622398	250.0	255.1	
131 2,4,5-Trichlorotoluene	159	16.038	16.036	0.003	0	376576	250.0	249.5	
130 2,3,6-Trichlorotoluene	159	16.135	16.133	0.002	96	336770	250.0	244.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	436.3	
S 134 1,2-Dichloroethene, Total	96				0		500.0	474.0	
S 135 1,3-Dichloropropene, Total	1				0		500.0	462.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00255	Amount Added: 10.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 11.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 10.00	Units: uL
voaWKetmix1st_00003	Amount Added: 10.00	Units: uL
voaW2clev1stR_00008	Amount Added: 10.00	Units: uL
voaWVA1stRest_00015	Amount Added: 10.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 10.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D

Injection Date: 08-Jun-2017 08:59:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD50

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

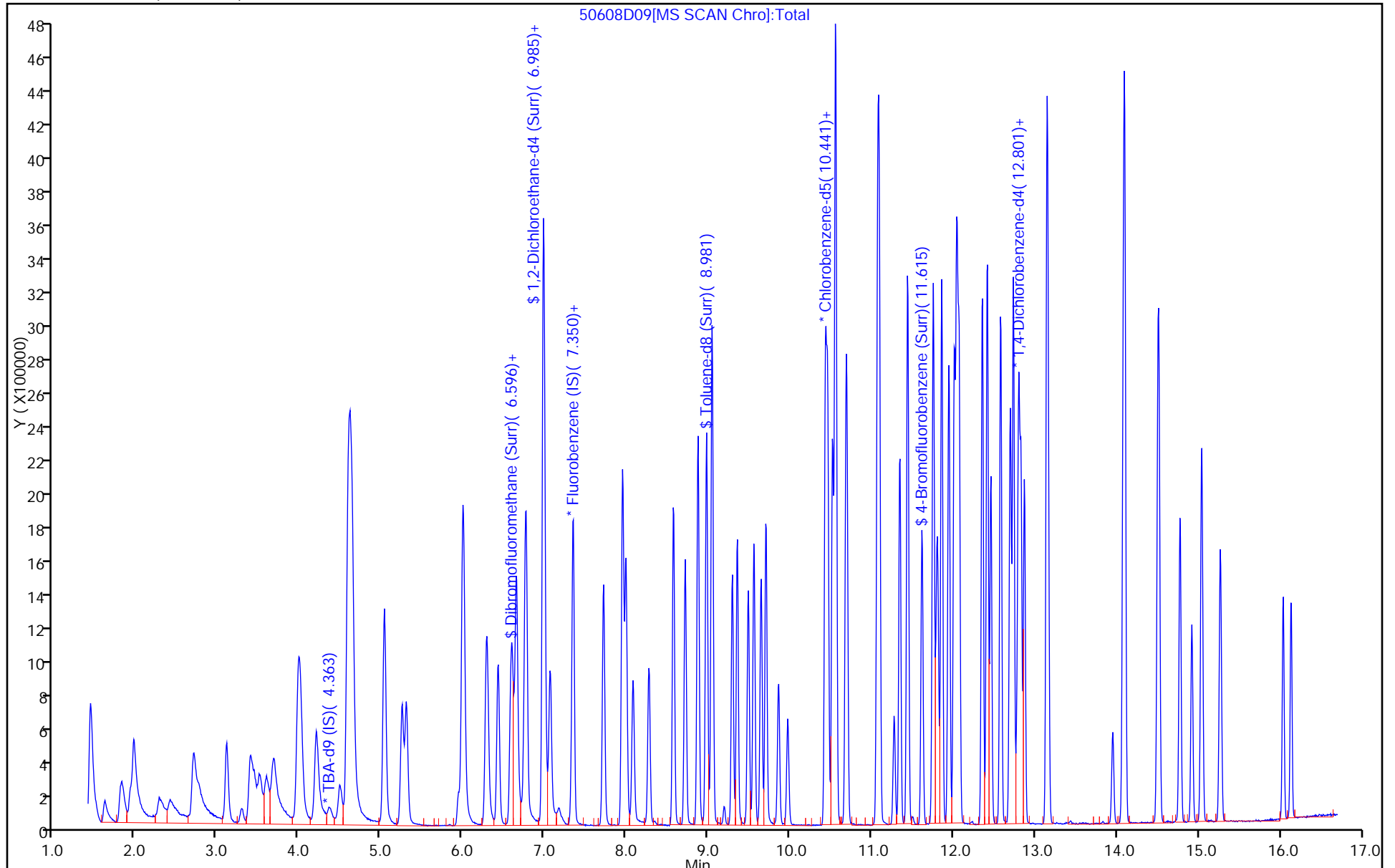
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

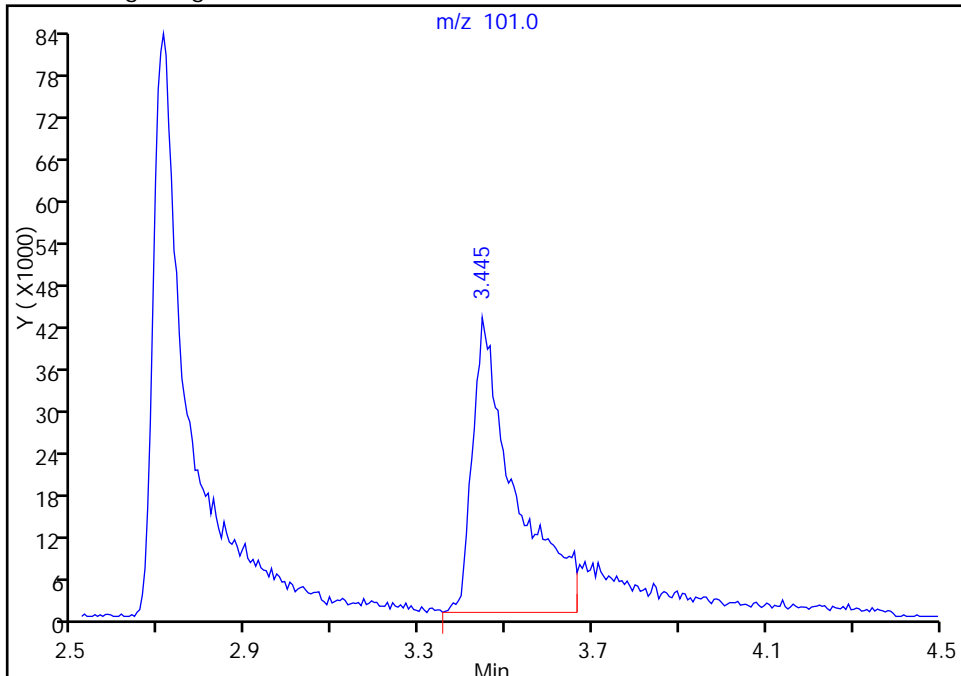
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D  
Injection Date: 08-Jun-2017 08:59:30 Instrument ID: CHHP5  
Lims ID: IC VSTD50  
Client ID:  
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 9  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

23 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

Signal: 1

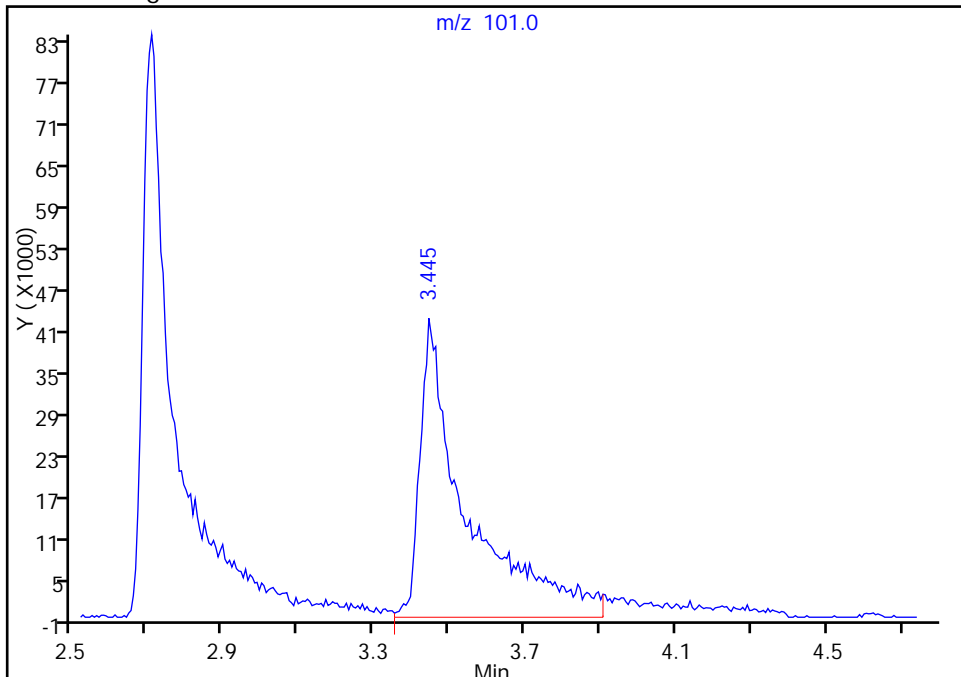
RT: 3.44  
Area: 286736  
Amount: 183.8990  
Amount Units: ng

Processing Integration Results



RT: 3.44  
Area: 367239  
Amount: 233.4906  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Jun-2017 03:08:59  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	0.3099 0.3034	0.3143 0.2538	0.2964 0.2820	0.2910	0.2753	Ave		0.2907		0.1000	6.9		20.0				
Chloromethane	0.3638 0.2790	0.2935 0.2586	0.2871 0.2672	0.2979	0.2905	Ave		0.2922		0.1000	10.9		20.0				
Vinyl chloride	0.3612 0.2960	0.3073 0.2570	0.3014 0.2855	0.2838	0.2802	Ave		0.2965		0.1000	10.2		20.0				
1,3-Butadiene	0.3317 0.2714	0.2771 0.2281	0.2660 0.2684	0.2619	0.2505	Ave		0.2694		0.0100	10.9		20.0				
Bromomethane	0.1274 0.1338	0.1569 0.1290	0.1507 0.1244	0.1438	0.1556	Ave		0.1402		0.0500	9.4		20.0				
Chloroethane	0.1972 0.1593	0.1757 0.1437	0.1605 0.1363	0.1653	0.1659	Ave		0.1630		0.0500	11.5		20.0				
Trichlorofluoromethane	0.4130 0.3605	0.3896 0.3164	0.3801 0.3348	0.3631	0.3573	Ave		0.3643		0.1000	8.4		20.0				
Ethyl ether	0.2690 0.2226	0.2473 0.2272	0.2344 0.2016	0.2419	0.2520	Ave		0.2370		0.0100	8.6		20.0				
Acrolein	0.0588 0.0564	0.0546 0.0639	0.0629 0.0550	0.0633	0.0629	Ave		0.0597		0.0100	6.7		20.0				
1,1-Dichloroethene	0.2633 0.2529	0.2525 0.2180	0.2438 0.2452	0.2449	0.2377	Ave		0.2448		0.1000	5.4		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3346 0.2678	0.2745 0.2382	0.2615 0.2547	0.2644	0.2534	Ave		0.2686		0.1000	10.7		20.0				
Acetone	0.1396 0.1048	0.1447 0.1163	0.1388 0.1038	0.1460	0.1519	Ave		0.1308		0.0500	14.8		20.0				
Iodomethane	0.4213 0.3803	0.3860 0.3716	0.3712 0.3619	0.3906	0.3928	Ave		0.3845		0.0100	4.8		20.0				
Carbon disulfide	0.5698 ++++	0.4896 0.5397	0.4946 0.6108	0.5168	0.5392	Ave		0.5372		0.1000	8.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
Allyl chloride	0.1501 0.1710	0.1485 0.1632	0.1541 0.1645	0.1561	0.1579	Ave		0.1582			0.0100	4.8		20.0			
Methyl acetate	0.2888 0.2364	0.2463 0.2614	0.2631 0.2382	0.2688	0.2686	Ave		0.2589			0.1000	6.8		20.0			
Methylene Chloride	0.4748 0.2821	0.3152 0.2910	0.3044 0.2676	0.3112	0.3108	Lin2	0.9532	0.2841			0.1000				0.9980		0.9900
tert-Butyl alcohol	1.3346 1.2872	1.1570 1.0277	1.1638 1.2343	1.1314	1.1253	Ave		1.1826			0.0100	8.3		20.0			
Acrylonitrile	0.1353 0.1106	0.1251 0.1245	0.1313 0.1150	0.1320	0.1333	Ave		0.1259			0.0100	7.1		20.0			
trans-1,2-Dichloroethene	0.3167 0.2789	0.2730 0.2547	0.2727 0.2653	0.2850	0.2851	Ave		0.2789			0.1000	6.6		20.0			
Methyl tert-butyl ether	0.7081 0.7482	0.7314 0.7800	0.7230 0.7142	0.7872	0.7909	Ave		0.7479			0.1000	4.5		20.0			
Hexane	0.4597 0.3561	0.3588 0.3156	0.3449 0.3625	0.3424	0.3242	Ave		0.3580			0.0100	12.4		20.0			
1,1-Dichloroethane	0.5228 0.4797	0.4979 0.4638	0.4852 0.4528	0.4864	0.4910	Ave		0.4850			0.2000	4.4		20.0			
Vinyl acetate	0.5018 0.5003	0.4274 0.5345	0.4556 0.5012	0.5130	0.5116	Ave		0.4932			0.0100	7.0		20.0			
2,2-Dichloropropane	0.0696 0.0640	0.0591 0.0559	0.0577 0.0619	0.0627	0.0632	Ave		0.0617			0.0100	6.9		20.0			
cis-1,2-Dichloroethene	0.3297 0.3143	0.3194 0.3060	0.3200 0.2963	0.3326	0.3338	Ave		0.3190			0.1000	4.1		20.0			
2-Butanone (MEK)	0.1854 0.1607	0.1969 0.1772	0.1989 0.1584	0.2064	0.2051	Ave		0.1861			0.0500	10.2		20.0			
Bromochloromethane	0.1517 0.1366	0.1414 0.1398	0.1402 0.1299	0.1453	0.1494	Ave		0.1418			0.0100	4.9		20.0			
Tetrahydrofuran	0.1371 0.0928	0.0982 0.1088	0.1088 0.1003	0.1130	0.1079	Ave		0.1084			0.0100	12.4		20.0			
Chloroform	0.5466 0.4636	0.4996 0.4621	0.4713 0.4342	0.4992	0.4977	Ave		0.4843			0.2000	7.0		20.0			
1,1,1-Trichloroethane	0.3786 0.3800	0.3677 0.3465	0.3637 0.3610	0.3661	0.3690	Ave		0.3666			0.1000	2.9		20.0			
Cyclohexane	0.4979 0.4744	0.4616 0.4108	0.4435 0.4590	0.4424	0.4292	Ave		0.4524			0.1000	6.0		20.0			
Carbon tetrachloride	0.3181 0.3198	0.2990 0.2880	0.3018 0.3038	0.3054	0.3047	Ave		0.3051			0.1000	3.3		20.0			
1,1-Dichloropropene	0.4064 0.4059	0.4083 0.3679	0.3990 0.3876	0.4006	0.3928	Ave		0.3961			0.0100	3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Isobutyl alcohol	0.0097 0.0085	0.0091 0.0105	0.0102 0.0094	0.0111	0.0112	Ave		0.0099		*	0.0100	9.6	20.0				
Benzene	1.3787 1.1520	1.2628 1.1081	1.2398 1.0692	1.2590	1.2563	Ave		1.2157			0.5000	8.2	20.0				
1,2-Dichloroethane	0.3884 0.3320	0.3554 0.3421	0.3528 0.3189	0.3753	0.3703	Ave		0.3544			0.1000	6.5	20.0				
n-Heptane	0.3037 0.2967	0.3011 0.2552	0.2860 0.3036	0.2755	0.2684	Ave		0.2863			0.0100	6.4	20.0				
Trichloroethene	0.3229 0.3036	0.3087 0.2884	0.3052 0.2920	0.3101	0.3167	Ave		0.3059			0.2000	3.8	20.0				
Methylcyclohexane	0.4727 0.4875	0.4672 0.4232	0.4697 0.4715	0.4601	0.4491	Ave		0.4626			0.1000	4.2	20.0				
1,2-Dichloropropane	0.3012 0.2794	0.2779 0.2782	0.2782 0.2612	0.2913	0.2975	Ave		0.2831			0.1000	4.6	20.0				
1,4-Dioxane	0.0022 0.0027	0.0028 0.0030	0.0031 0.0031	0.0030	0.0032	Ave		0.0029		*	0.0100	11.4	20.0				
Dibromomethane	0.1595 0.1606	0.1708 0.1667	0.1638 0.1549	0.1734	0.1774	Ave		0.1659			0.0100	4.6	20.0				
Bromodichloromethane	0.3001 0.3336	0.3125 0.3351	0.3169 0.3110	0.3438	0.3519	Ave		0.3256			0.2000	5.6	20.0				
2-Chloroethyl vinyl ether	0.1669 0.2025	0.1917 0.2176	0.2032 0.2031	0.2200	0.2248	Ave		0.2037			0.0100	9.1	20.0				
cis-1,3-Dichloropropene	0.3596 0.4128	0.3596 0.4158	0.3786 0.3959	0.4116	0.4298	Ave		0.3955			0.2000	6.8	20.0				
4-Methyl-2-pentanone (MIBK)	1.3560 1.1652	1.2491 1.2232	1.3592 1.1532	1.3610	1.3926	Ave		1.2824			0.1000	7.5	20.0				
Toluene	6.1005 4.5990	5.6903 4.2081	5.2159 4.0277	5.0185	5.0243	Ave		4.9855			0.4000	14.1	20.0				
trans-1,3-Dichloropropene	1.2257 1.4397	1.2796 1.4086	1.2851 1.3247	1.3956	1.4937	Ave		1.3566			0.1000	6.8	20.0				
Ethyl methacrylate	1.3604 1.6673	1.5623 1.6591	1.6724 1.5738	1.7698	1.8222	Ave		1.6359			0.0100	8.7	20.0				
1,1,2-Trichloroethane	1.2522 0.9633	1.0992 0.9427	1.0403 0.8887	1.0530	1.0694	Ave		1.0386			0.1000	10.8	20.0				
Tetrachloroethene	1.1481 0.9182	1.0929 0.8058	0.9505 0.8459	0.9238	0.9211	Ave		0.9508			0.2000	12.2	20.0				
1,3-Dichloropropane	2.2370 1.7852	2.0694 1.7532	1.9307 1.6348	1.9958	1.9532	Ave		1.9199			0.0100	10.0	20.0				
2-Hexanone	0.9818 0.8998	0.9941 0.9190	1.0485 0.8780	1.0518	1.0958	Ave		0.9836			0.1000	8.1	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dibromochloromethane	0.7989 0.9016	0.8620 0.8947	0.8650 0.8322	0.9093	0.9598	Ave		0.8779			0.1000	5.7	20.0				
1,2-Dibromoethane (EDB)	1.1425 1.0146	1.0956 1.0059	1.0726 0.9575	1.1227	1.1100	Ave		1.0652			0.1000	6.1	20.0				
3-Chlorobenzotrifluoride	2.1508 1.6103	1.7646 1.4397	1.6777 1.5967	1.7670	1.7382	Ave		1.7181			0.0100	12.0	20.0				
Chlorobenzene	4.0368 3.0317	3.5186 2.8231	3.2468 2.6869	3.3119	3.3091	Ave		3.2456			0.5000	13.0	20.0				
4-Chlorobenzotrifluoride	1.8614 1.5230	1.6468 1.3432	1.5641 1.5178	1.6419	1.5859	Ave		1.5855			0.0100	9.3	20.0				
1,1,1,2-Tetrachloroethane	1.0682 1.0211	1.0658 0.9781	1.0366 0.9303	1.0666	1.0896	Ave		1.0321			0.0100	5.2	20.0				
Ethylbenzene	1.9199 1.7723	1.9530 1.6113	1.8804 1.6150	1.8616	1.8815	Ave		1.8119			0.1000	7.3	20.0				
m-Xylene & p-Xylene	2.1686 2.2054	2.4439 2.0173	2.3106 1.9980	2.2675	2.3006	Ave		2.2140			0.1000	6.8	20.0				
o-Xylene	2.1421 2.0826	2.2379 1.9206	2.1746 1.8793	2.2085	2.2321	Ave		2.1097			0.3000	6.6	20.0				
Styrene	3.6332 3.4371	3.9143 3.2595	3.7554 3.0478	3.7413	3.7778	Ave		3.5708			0.3000	8.3	20.0				
Bromoform	0.5105 0.5727	0.4852 0.5813	0.5106 0.5484	0.5622	0.5938	Ave		0.5456			0.1000	7.2	20.0				
2-Chlorobenzotrifluoride	1.7885 1.5489	1.7322 1.4506	1.6281 1.5406	1.7502	1.7146	Ave		1.6442			0.0100	7.4	20.0				
Isopropylbenzene	5.5110 4.9386	5.7732 4.4163	5.4683 4.3345	5.4199	5.3367	Ave		5.1498			0.1000	10.3	20.0				
Bromobenzene	0.9987 0.9743	0.9872 0.9390	0.9377 0.9146	0.9980	1.0140	Ave		0.9704			0.0100	3.7	20.0				
1,1,2,2-Tetrachloroethane	1.7609 1.4046	1.6228 1.4415	1.5952 1.3351	1.5862	1.5551	Ave		1.5377			0.3000	8.9	20.0				
trans-1,4-Dichloro-2-butene	0.2598 0.2949	0.2743 0.2979	0.2825 0.3083	0.3195	0.3037	Ave		0.2926			0.0100	6.6	20.0				
1,2,3-Trichloropropane	0.4104 0.3768	0.3859 0.3949	0.4160 0.3815	0.4181	0.4204	Ave		0.4005			0.0100	4.4	20.0				
N-Propylbenzene	1.0871 1.1604	1.1279 1.0214	1.1341 1.0987	1.1152	1.1268	Ave		1.1089			0.0100	3.8	20.0				
2-Chlorotoluene	0.9007 0.9835	0.9855 0.9238	0.9604 0.9321	0.9790	1.0033	Ave		0.9585			0.0100	3.7	20.0				
3-Chlorotoluene	1.0064 1.0049	1.0309 0.9798	1.0614 1.0388	1.1086	1.1105	Ave		1.0427			0.0100	4.6	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	3.0303 3.1789	3.4364 2.8871	3.3130 2.9071	3.3121	3.3198	Ave		3.1731			0.0100	6.6	20.0				
4-Chlorotoluene	1.0553 1.0614	1.0524 0.9741	1.0341 0.9970	1.0305	1.0761	Ave		1.0351			0.0100	3.3	20.0				
tert-Butylbenzene	2.5746 2.7227	2.8017 2.3880	2.7530 2.5138	2.7587	2.7116	Ave		2.6530			0.0100	5.5	20.0				
1,2,4-Trimethylbenzene	3.1254 3.2212	3.4166 2.9826	3.3711 2.9395	3.3815	3.3664	Ave		3.2255			0.0100	5.9	20.0				
3,4-Dichlorobenzotrifluoride	0.9400 0.7764	0.7679 0.7160	0.7941 0.8232	0.8410	0.8065	Ave		0.8081			0.0100	8.1	20.0				
sec-Butylbenzene	3.7533 3.7112	3.9865 3.2645	3.8932 3.4225	3.8001	3.7790	Ave		3.7013			0.0100	6.5	20.0				
1,3-Dichlorobenzene	1.8909 1.6927	1.7949 1.6042	1.7488 1.5884	1.7678	1.7840	Ave		1.7340			0.6000	5.8	20.0				
4-Isopropyltoluene	2.9547 3.1220	3.2883 2.7812	3.2665 2.8873	3.2019	3.1605	Ave		3.0828			0.0100	6.0	20.0				
1,4-Dichlorobenzene	1.9782 1.7336	1.8319 1.6481	1.8074 1.6177	1.8136	1.8124	Ave		1.7804			0.5000	6.4	20.0				
2,4-Dichlorobenzotrifluoride	0.7762 0.7410	0.7684 0.6560	0.7174 0.7931	0.7890	0.7781	Ave		0.7524			0.0100	6.2	20.0				
2,5-Dichlorobenzotrifluoride	0.8709 0.7991	0.7991 0.7661	0.8033 0.8193	0.8304	0.8133	Ave		0.8127			0.0100	3.7	20.0				
n-Butylbenzene	2.4429 2.5807	2.6260 2.2815	2.6042 2.4382	2.5661	2.5760	Ave		2.5144			0.0100	4.7	20.0				
1,2-Dichlorobenzene	1.8724 1.5966	1.7261 1.5319	1.6636 1.4748	1.6744	1.6818	Ave		1.6527			0.4000	7.4	20.0				
1,2-Dibromo-3-Chloropropane	0.1676 0.1857	0.1676 0.2001	0.1774 0.1873	0.1829	0.1992	Ave		0.1835			0.0500	6.8	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	0.9836 1.0182	1.0277 0.9802	1.0819 1.0447	1.1339	1.1166	Ave		1.0483			0.0100	5.5	20.0				
2,3- & 3,4- Dichlorotoluene	0.9469 1.0658	1.0253 1.0486	1.0886 1.1261	1.1868	1.1843	Ave		1.0841			0.0100	7.5	20.0				
1,2,4-Trichlorobenzene	0.7563 0.7556	0.7184 0.7286	0.7717 0.7766	0.7671	0.7765	Ave		0.7563			0.2000	2.9	20.0				
Hexachlorobutadiene	0.2941 0.2697	0.2848 0.2377	0.2809 0.2898	0.2829	0.2739	Ave		0.2767			0.0100	6.4	20.0				
Naphthalene	2.0979 2.6004	2.2731 2.6494	2.6660 2.6327	2.8062	2.8819	Ave		2.5759			0.0100	10.2	20.0				
1,2,3-Trichlorobenzene	0.7106 0.6701	0.6788 0.6564	0.6707 0.7130	0.7070	0.7206	Ave		0.6909			0.0100	3.5	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.3224 0.3475	0.2818 0.3346	0.3064 ++++	0.3498	0.3564	Ave		0.3284			0.0100	8.2		20.0			
2,3,6-Trichlorotoluene	0.2545 0.3128	0.2731 0.3131	0.3085 ++++	0.3418	0.3347	Ave		0.3055			0.0100	10.3		20.0			
Dibromofluoromethane (Surr)	0.2565 0.2365	0.2433 0.2326	0.2366 0.2242	0.2475	0.2474	Ave		0.2406				4.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3401 0.2693	0.3050 0.2801	0.2948 0.2619	0.3004	0.2957	Ave		0.2934				8.3		20.0			
Toluene-d8 (Surr)	5.1161 3.6702	4.5030 3.3148	4.0781 3.3147	3.9154	3.9228	Ave		3.9794				15.2		20.0			
4-Bromofluorobenzene (Surr)	1.6317 1.3781	1.5302 1.3139	1.4390 1.2793	1.4518	1.4735	Ave		1.4372				8.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
Dichlorodifluoromethane	FB	Ave	16788 647803	84559 569791	159957 857078	226899	286388	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	19706 595751	78965 580608	154943 811941	232300	302276	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	19568 632153	82670 577090	162634 867536	221295	291558	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	17968 579584	74553 512032	143576 815610	204212	260580	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	6901 285707	42224 289712	81346 377950	112119	161865	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	10685 340168	47273 322589	86601 414342	128899	172552	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	22371 769762	104824 710415	205127 1017488	283194	371684	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	14571 475422	66542 510033	126496 612640	188662	262150	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	63695 154738	73476 179414	101829 183852	115103	130923	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	14263 540044	67928 489503	131576 745282	190985	247279	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	18126 571742	73846 534815	141127 774058	206212	263603	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	37823 447756	77890 522287	149782 630881	227784	316026	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	22822 811997	103869 834240	200342 1099819	304618	408622	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	30868 +++++	131730 1211678	266935 1856339	403056	561008	5.00 +++++	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	8133 365237	39946 366340	83167 500032	121734	164305	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	31286 1009713	132543 1173609	283974 1447736	419273	558912	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Lin2	25720 602402	84822 653341	164284 813282	242665	323324	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd 9	Ave	16447 524619	64738 519054	139891 568135	204334	283777	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	73302 2362587	336508 2794353	708552 3495451	1029651	1387354	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	17158 595572	73445 571864	147191 806194	222245	296608	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	38357 1597553	196780 1751345	390184 2170401	613933	822838	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	24902 760411	96542 708650	186124 1101558	266987	337300	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	28319 1024340	133976 1041269	261874 1376176	379320	510811	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	27185 1068205	115000 1200052	245879 1523056	400099	532250	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	3769 136605	15889 125406	31118 188250	48893	65750	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	17858 671208	85931 687049	172690 900432	259385	347303	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	50216 686266	105960 795793	214731 962704	321867	426755	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	8216 291754	38047 313977	75687 394763	113290	155416	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	14858 396477	52866 488432	117485 609910	176266	224432	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	29608 989929	134431 1037446	254354 1319564	389323	517765	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20508 811476	98927 777880	196286 1097196	285488	383868	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	26974 1012965	124196 922281	239333 1394833	345041	446560	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	17231 682784	80446 646700	162849 923177	238173	317033	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	22014 866715	109851 825970	215336 1178056	312373	408627	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	13122 452876	61305 587752	136973 715201	216532	290317	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	74686 2459963	339765 2487856	669098 3249284	981851	1307056	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	21038 708898	95627 767974	190422 969148	292683	385206	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16453 633483	81002 573064	154370 922592	214813	279216	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	17490 648262	83072 647404	164695 887332	241861	329499	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25605 1041060	125697 950167	253511 1432791	358781	467268	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16316 596512	74777 624637	150135 793667	227133	309491	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2333 115916	15162 135844	33209 187034	46920	65688	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	8641 342853	45949 374289	88395 470836	135198	184529	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	16257 712434	84070 752352	171049 945026	268080	366097	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18086 864836	103158 977190	219328 1234429	343066	467677	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	19479 881560	96744 933591	204344 1203144	320956	447138	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	79892 1265241	154465 1476808	361112 1863520	542662	738839	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	71883 2496911	351840 2540251	692901 3254284	1000479	1332783	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	14443 781619	79122 850338	170710 1070347	278226	396221	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	16030 905216	96602 1001550	222171 1271580	352819	483364	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	14755 523017	67966 569083	138196 718069	209928	283688	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	13528 498519	67579 486427	126273 683462	184171	244346	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	26359 969241	127957 1058308	256477 1320887	397870	518120	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	57842 977068	122936 1109580	278579 1418811	419354	581383	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	9414 489506	53302 540065	114911 672369	181267	254603	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	13462 550826	67745 607203	142489 773664	223815	294438	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	25343 874266	109109 869071	222871 1290067	352260	461082	5.00 175	25.0 200	50.0 250	75.0	100



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	47566 1645967	217561 1704167	431311 2170926	660247	877804	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	21933 826850	101825 810848	207774 1226371	327327	420704	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12587 554351	65901 590452	137710 751692	212641	289044	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	22622 962208	120759 972676	249792 1304914	371119	499116	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25553 1197380	151114 1217768	306948 1614353	452043	610286	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	25240 1130677	138375 1159372	288885 1518391	440285	592117	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	42810 1866053	242031 1967591	498873 2462559	745860	1002147	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	6015 310948	30000 350923	67829 443094	112077	157509	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	21074 840920	107103 875687	216286 1244752	348911	454842	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	64937 2681266	356966 2665903	726432 3502176	1080505	1415676	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	16032 659984	83376 711710	163748 889999	261052	348475	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	20749 762601	100341 870164	211912 1078742	316221	412534	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4170 199800	23168 225821	49334 299994	83561	104361	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	6588 255265	32588 299299	72643 371250	109372	144469	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	17451 786064	95261 774184	198029 1069171	291693	387234	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	14458 666236	83234 700158	167713 907016	256066	344800	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	16155 680717	87067 742625	185343 1010916	289960	381649	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	48645 2153457	290219 2188229	578518 2828999	866332	1140888	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	16940 719035	88877 738280	180584 970169	269544	369832	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	41329 1844417	236619 1809964	480729 2446270	721573	931884	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50171 2182090	288545 2260604	588662 2860516	884487	1156912	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	15090 525922	64854 542681	138659 801099	219982	277157	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	60251 2514051	336681 2474312	679839 3330508	993968	1298722	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	30355 1146674	151590 1215884	305374 1545747	462404	613101	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	47431 2114911	277710 2107989	570403 2809716	837492	1086140	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	31756 1174377	154714 1249173	315614 1574222	474362	622850	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	12460 501975	64892 497225	125268 771761	206368	267418	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	13980 541324	67486 580659	140272 797256	217211	279514	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	39215 1748217	221777 1729209	454742 2372703	671190	885288	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	30057 1081541	145778 1161072	290492 1435184	437966	577962	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2690 125814	14158 151695	30986 182290	47827	68470	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	47367 2069215	260387 2228710	566788 3049908	889724	1151252	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	30402 1443949	173187 1589536	380181 2191624	620870	814032	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	12140 511830	60672 552245	134753 755690	200638	266863	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	4721 182711	24054 180140	49048 282046	73984	94134	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	33677 1761559	191971 2008065	465533 2561966	733996	990398	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	11407 453926	57325 497473	117120 693791	184932	247660	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	5175 235417	23799 253594	53498 ++++	91488	122498	5.00 175	25.0 200	50.0 ++++	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	4086 211883	23065 237299	53869 ++++	89402	115009	5.00 175	25.0 200	50.0 ++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	13893 505019	65453 522323	127700 681339	193042	257355	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	18421 575099	82071 628942	159071 795993	234269	307676	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	60283 1992609	278432 2000995	541748 2678162	780569	1040595	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	19227 748217	94618 793129	191158 1033645	289432	390879	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD  
Lin2 = Linear 1/conc^2 ISTD

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT						
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	
	LVL 7 #	LVL 8 #					LVL 7	LVL 8					
Dichlorodifluoromethane	6.6 -12.7	8.1 -3.0	1.9	0.1	-5.3	4.3	50 50	50	50	50	50	50	50
Chloromethane	24.5 -11.5	0.4 -8.6	-1.7	1.9	-0.6	-4.5	50 50	50	50	50	50	50	50
Vinyl chloride	21.8 -13.3	3.6 -3.7	1.6	-4.3	-5.5	-0.2	50 50	50	50	50	50	50	50
1,3-Butadiene	23.1 -15.3	2.9 -0.4	-1.2	-2.8	-7.0	0.8	50 50	50	50	50	50	50	50
Bromomethane	-9.1 -8.0	11.9 -11.3	7.5	2.5	11.0	-4.6	50 50	50	50	50	50	50	50
Chloroethane	21.0 -11.8	7.8 -16.3	-1.5	1.4	1.8	-2.3	50 50	50	50	50	50	50	50
Trichlorofluoromethane	13.3 -13.2	6.9 -8.1	4.3	-0.3	-1.9	-1.1	50 50	50	50	50	50	50	50
Ethyl ether	13.5 -4.1	4.4 -14.9	-1.1	2.1	6.3	-6.1	50 50	50	50	50	50	50	50
Acrolein	-1.6 7.0	-8.5 -7.9	5.3	5.9	5.4	-5.6	50 50	50	50	50	50	50	50
1,1-Dichloroethene	7.6 -10.9	3.1 0.2	-0.4	0.0	-2.9	3.3	50 50	50	50	50	50	50	50
1,1,2-Trichloro-1,2,2-trifluoroethane	24.6 -11.3	2.2 -5.2	-2.7	-1.6	-5.7	-0.3	50 50	50	50	50	50	50	50
Acetone	6.8 -11.0	10.7 -20.6	6.1	11.7	16.2	-19.8	50 50	50	50	50	50	50	50
Iodomethane	9.6 -3.4	0.4 -5.9	-3.4	1.6	2.2	-1.1	50 50	50	50	50	50	50	50
Carbon disulfide	6.1 0.5	-8.9 13.7	-7.9	-3.8	0.4	+++++	50 50	50	50	50	50	50	50
Allyl chloride	-5.1 3.1	-6.1 4.0	-2.6	-1.3	-0.2	8.1	50 50	50	50	50	50	50	50

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methyl acetate	11.5	-4.9	1.6	3.8	3.7	-8.7	50	50	50	50	50	50
	0.9	-8.0					50	50				
Methylene Chloride	0.0	-2.5	0.4	5.0	6.0	-2.6	50	50	50	50	50	50
	0.7	-7.2					50	50				
tert-Butyl alcohol	12.8	-2.2	-1.6	-4.3	-4.9	8.8	50	50	50	50	50	50
	-13.1	4.4					50	50				
Acrylonitrile	7.5	-0.7	4.3	4.9	5.9	-12.1	50	50	50	50	50	50
	-1.1	-8.6					50	50				
trans-1,2-Dichloroethene	13.6	-2.1	-2.2	2.2	2.2	0.0	50	50	50	50	50	50
	-8.7	-4.9					50	50				
Methyl tert-butyl ether	-5.3	-2.2	-3.3	5.3	5.8	0.0	50	50	50	50	50	50
	4.3	-4.5					50	50				
Hexane	28.4	0.2	-3.7	-4.4	-9.4	-0.5	50	50	50	50	50	50
	-11.8	1.2					50	50				
1,1-Dichloroethane	7.8	2.7	0.1	0.3	1.2	-1.1	50	50	50	50	50	50
	-4.4	-6.6					50	50				
Vinyl acetate	1.8	-13.3	-7.6	4.0	3.7	1.4	50	50	50	50	50	50
	8.4	1.6					50	50				
2,2-Dichloropropane	12.7	-4.4	-6.6	1.5	2.4	3.6	50	50	50	50	50	50
	-9.5	0.3					50	50				
cis-1,2-Dichloroethene	3.3	0.1	0.3	4.3	4.6	-1.5	50	50	50	50	50	50
	-4.1	-7.1					50	50				
2-Butanone (MEK)	-0.4	5.8	6.9	10.9	10.2	-13.7	50	50	50	50	50	50
	-4.8	-14.9					50	50				
Bromochloromethane	7.0	-0.3	-1.1	2.5	5.4	-3.6	50	50	50	50	50	50
	-1.4	-8.4					50	50				
Tetrahydrofuran	26.5	-9.4	0.4	4.3	-0.5	-14.3	50	50	50	50	50	50
	0.4	-7.4					50	50				
Chloroform	12.9	3.2	-2.7	3.1	2.8	-4.3	50	50	50	50	50	50
	-4.6	-10.3					50	50				
1,1,1-Trichloroethane	3.3	0.3	-0.8	-0.1	0.7	3.7	50	50	50	50	50	50
	-5.5	-1.5					50	50				
Cyclohexane	10.1	2.0	-2.0	-2.2	-5.1	4.9	50	50	50	50	50	50
	-9.2	1.5					50	50				
Carbon tetrachloride	4.3	-2.0	-1.1	0.1	-0.1	4.8	50	50	50	50	50	50
	-5.6	-0.4					50	50				
1,1-Dichloropropene	2.6	3.1	0.7	1.1	-0.8	2.5	50	50	50	50	50	50
	-7.1	-2.1					50	50				
Isobutyl alcohol	-2.6	-8.4	2.0	11.6	12.2	-14.7	50	50	50	50	50	50
	5.2	-5.4					50	50				
Benzene	13.4	3.9	2.0	3.6	3.3	-5.2	50	50	50	50	50	50
	-8.9	-12.1					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
1,2-Dichloroethane	9.6	0.3	-0.4	5.9	4.5	-6.3	50	50	50	50	50	50
	-3.5	-10.0					50	50				
n-Heptane	6.1	5.2	-0.1	-3.8	-6.2	3.6	50	50	50	50	50	50
	-10.8	6.0					50	50				
Trichloroethene	5.5	0.9	-0.3	1.4	3.5	-0.8	50	50	50	50	50	50
	-5.8	-4.6					50	50				
Methylcyclohexane	2.2	1.0	1.5	-0.6	-2.9	5.4	50	50	50	50	50	50
	-8.5	1.9					50	50				
1,2-Dichloropropane	6.4	-1.8	-1.7	2.9	5.1	-1.3	50	50	50	50	50	50
	-1.7	-7.7					50	50				
1,4-Dioxane	-25.2	-2.1	6.9	4.5	9.7	-5.7	50	50	50	50	50	50
	5.1	6.9					50	50				
Dibromomethane	-3.8	3.0	-1.3	4.5	6.9	-3.2	50	50	50	50	50	50
	0.5	-6.6					50	50				
Bromodichloromethane	-7.8	-4.0	-2.7	5.6	8.1	2.5	50	50	50	50	50	50
	2.9	-4.5					50	50				
2-Chloroethyl vinyl ether	-18.1	-5.9	-0.3	8.0	10.3	-0.6	50	50	50	50	50	50
	6.8	-0.3					50	50				
cis-1,3-Dichloropropene	-9.1	-9.1	-4.3	4.1	8.7	4.4	50	50	50	50	50	50
	5.1	0.1					50	50				
4-Methyl-2-pentanone (MIBK)	5.7	-2.6	6.0	6.1	8.6	-9.1	50	50	50	50	50	50
	-4.6	-10.1					50	50				
Toluene	22.4	14.1	4.6	0.7	0.8	-7.8	50	50	50	50	50	50
	-15.6	-19.2					50	50				
trans-1,3-Dichloropropene	-9.6	-5.7	-5.3	2.9	10.1	6.1	50	50	50	50	50	50
	3.8	-2.3					50	50				
Ethyl methacrylate	-16.8	-4.5	2.2	8.2	11.4	1.9	50	50	50	50	50	50
	1.4	-3.8					50	50				
1,1,2-Trichloroethane	20.6	5.8	0.2	1.4	3.0	-7.2	50	50	50	50	50	50
	-9.2	-14.4					50	50				
Tetrachloroethene	20.7	14.9	0.0	-2.8	-3.1	-3.4	50	50	50	50	50	50
	-15.3	-11.0					50	50				
1,3-Dichloropropane	16.5	7.8	0.6	4.0	1.7	-7.0	50	50	50	50	50	50
	-8.7	-14.8					50	50				
2-Hexanone	-0.2	1.1	6.6	6.9	11.4	-8.5	50	50	50	50	50	50
	-6.6	-10.7					50	50				
Dibromochloromethane	-9.0	-1.8	-1.5	3.6	9.3	2.7	50	50	50	50	50	50
	1.9	-5.2					50	50				
1,2-Dibromoethane (EDB)	7.3	2.9	0.7	5.4	4.2	-4.8	50	50	50	50	50	50
	-5.6	-10.1					50	50				
3-Chlorobenzotrifluoride	25.2	2.7	-2.4	2.8	1.2	-6.3	50	50	50	50	50	50
	-16.2	-7.1					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Chlorobenzene	24.4	8.4	0.0	2.0	2.0	-6.6	50	50	50	50	50	50
	-13.0	-17.2					50	50				
4-Chlorobenzotrifluoride	17.4	3.9	-1.4	3.6	0.0	-3.9	50	50	50	50	50	50
	-15.3	-4.3					50	50				
1,1,1,2-Tetrachloroethane	3.5	3.3	0.4	3.4	5.6	-1.1	50	50	50	50	50	50
	-5.2	-9.9					50	50				
Ethylbenzene	6.0	7.8	3.8	2.7	3.8	-2.2	50	50	50	50	50	50
	-11.1	-10.9					50	50				
m-Xylene & p-Xylene	-2.1	10.4	4.4	2.4	3.9	-0.4	50	50	50	50	50	50
	-8.9	-9.8					50	50				
o-Xylene	1.5	6.1	3.1	4.7	5.8	-1.3	50	50	50	50	50	50
	-9.0	-10.9					50	50				
Styrene	1.7	9.6	5.2	4.8	5.8	-3.7	50	50	50	50	50	50
	-8.7	-14.6					50	50				
Bromoform	-6.4	-11.1	-6.4	3.0	8.8	5.0	50	50	50	50	50	50
	6.6	0.5					50	50				
2-Chlorobenzotrifluoride	8.8	5.3	-1.0	6.4	4.3	-5.8	50	50	50	50	50	50
	-11.8	-6.3					50	50				
Isopropylbenzene	7.0	12.1	6.2	5.2	3.6	-4.1	50	50	50	50	50	50
	-14.2	-15.8					50	50				
Bromobenzene	2.9	1.7	-3.4	2.8	4.5	0.4	50	50	50	50	50	50
	-3.2	-5.8					50	50				
1,1,2,2-Tetrachloroethane	14.5	5.5	3.7	3.2	1.1	-8.7	50	50	50	50	50	50
	-6.3	-13.2					50	50				
trans-1,4-Dichloro-2-butene	-11.2	-6.3	-3.4	9.2	3.8	0.8	50	50	50	50	50	50
	1.8	5.4					50	50				
1,2,3-Trichloropropane	2.5	-3.7	3.9	4.4	5.0	-5.9	50	50	50	50	50	50
	-1.4	-4.7					50	50				
N-Propylbenzene	-2.0	1.7	2.3	0.6	1.6	4.6	50	50	50	50	50	50
	-7.9	-0.9					50	50				
2-Chlorotoluene	-6.0	2.8	0.2	2.1	4.7	2.6	50	50	50	50	50	50
	-3.6	-2.8					50	50				
3-Chlorotoluene	-3.5	-1.1	1.8	6.3	6.5	-3.6	50	50	50	50	50	50
	-6.0	-0.4					50	50				
1,3,5-Trimethylbenzene	-4.5	8.3	4.4	4.4	4.6	0.2	50	50	50	50	50	50
	-9.0	-8.4					50	50				
4-Chlorotoluene	1.9	1.7	-0.1	-0.4	4.0	2.5	50	50	50	50	50	50
	-5.9	-3.7					50	50				
tert-Butylbenzene	-3.0	5.6	3.8	4.0	2.2	2.6	50	50	50	50	50	50
	-10.0	-5.2					50	50				
1,2,4-Trimethylbenzene	-3.1	5.9	4.5	4.8	4.4	-0.1	50	50	50	50	50	50
	-7.5	-8.9					50	50				

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-69061-1

Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
3,4-Dichlorobenzotrifluoride	16.3	-5.0	-1.7	4.1	-0.2	-3.9	50	50	50	50	50	50
	-11.4	1.9					50	50				
sec-Butylbenzene	1.4	7.7	5.2	2.7	2.1	0.3	50	50	50	50	50	50
	-11.8	-7.5					50	50				
1,3-Dichlorobenzene	9.1	3.5	0.9	2.0	2.9	-2.4	50	50	50	50	50	50
	-7.5	-8.4					50	50				
4-Isopropyltoluene	-4.2	6.7	6.0	3.9	2.5	1.3	50	50	50	50	50	50
	-9.8	-6.3					50	50				
1,4-Dichlorobenzene	11.1	2.9	1.5	1.9	1.8	-2.6	50	50	50	50	50	50
	-7.4	-9.1					50	50				
2,4-Dichlorobenzotrifluoride	3.2	2.1	-4.7	4.9	3.4	-1.5	50	50	50	50	50	50
	-12.8	5.4					50	50				
2,5-Dichlorobenzotrifluoride	7.2	-1.7	-1.2	2.2	0.1	-1.7	50	50	50	50	50	50
	-5.7	0.8					50	50				
n-Butylbenzene	-2.8	4.4	3.6	2.1	2.4	2.6	50	50	50	50	50	50
	-9.3	-3.0					50	50				
1,2-Dichlorobenzene	13.3	4.4	0.7	1.3	1.8	-3.4	50	50	50	50	50	50
	-7.3	-10.8					50	50				
1,2-Dibromo-3-Chloropropane	-8.7	-8.6	-3.3	-0.3	8.6	1.2	50	50	50	50	50	50
	9.1	2.1					50	50				
2,4- & 2,5- & 2,6- Dichlorotoluene	-6.2	-2.0	3.2	8.2	6.5	-2.9	50	50	50	50	50	50
	-6.5	-0.3					50	50				
2,3- & 3,4- Dichlorotoluene	-12.6	-5.4	0.4	9.5	9.3	-1.7	50	50	50	50	50	50
	-3.3	3.9					50	50				
1,2,4-Trichlorobenzene	0.0	-5.0	2.0	1.4	2.7	-0.1	50	50	50	50	50	50
	-3.7	2.7					50	50				
Hexachlorobutadiene	6.3	2.9	1.5	2.2	-1.0	-2.5	50	50	50	50	50	50
	-14.1	4.7					50	50				
Naphthalene	-18.6	-11.8	3.5	8.9	11.9	1.0	50	50	50	50	50	50
	2.9	2.2					50	50				
1,2,3-Trichlorobenzene	2.9	-1.8	-2.9	2.3	4.3	-3.0	50	50	50	50	50	50
	-5.0	3.2					50	50				
2,4,5-Trichlorotoluene	-1.8	-14.2	-6.7	6.5	8.5	5.8	50	50	50	50	50	50
	1.9	++++					50					
2,3,6-Trichlorotoluene	-16.7	-10.6	1.0	11.9	9.5	2.4	50	50	50	50	50	50
	2.5	++++					50					
Dibromofluoromethane (Surr)	6.6	1.1	-1.6	2.9	2.8	-1.7	50	50	50	50	50	50
	-3.3	-6.8					50	50				
1,2-Dichloroethane-d4 (Surr)	15.9	4.0	0.5	2.4	0.8	-8.2	50	50	50	50	50	50
	-4.5	-10.7					50	50				
Toluene-d8 (Surr)	28.6	13.2	2.5	-1.6	-1.4	-7.8	50	50	50	50	50	50
	-16.7	-16.7					50	50				



FORM VI  
 GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
 READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1 Analy Batch No.: 218218

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
4-Bromofluorobenzene (Surr)	13.5	6.5	0.1	1.0	2.5	-4.1	50	50	50	50	50	50
	-8.6	-11.0					50	50				

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 27-Jul-2017 00:51:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-002  
 Misc. Info.: IC VSTD1  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:04:45 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:08:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.323	-0.006	0	246479	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	99	541701	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	117831	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	96	160528	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	90	13893	5.00	5.33	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.951	6.945	0.006	0	18421	5.00	5.79	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	60283	5.00	6.43	
\$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	87	19227	5.00	5.68	
11 Dichlorodifluoromethane	85	1.665	1.646	0.018	68	16788	5.00	5.33	
12 Chloromethane	50	1.804	1.804	0.000	97	19706	5.00	6.22	
13 Vinyl chloride	62	1.932	1.944	-0.012	95	19568	5.00	6.09	
14 Butadiene	39	1.963	1.969	-0.005	95	17968	5.00	6.16	
15 Bromomethane	94	2.273	2.254	0.019	90	6901	5.00	4.54	
16 Chloroethane	64	2.419	2.419	0.000	89	10685	5.00	6.05	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	26531	5.00	5.94	
18 Trichlorofluoromethane	101	2.760	2.741	0.019	45	22371	5.00	5.67	M
20 Ethyl ether	59	3.076	3.076	0.000	88	14571	5.00	5.67	
21 Acrolein	56	3.252	3.252	0.000	99	63695	100.0	98.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	77	14263	5.00	5.38	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	74	18126	5.00	6.23	
24 Acetone	43	3.483	3.477	0.006	99	37823	25.0	26.7	
25 Iodomethane	142	3.569	3.562	0.007	95	22822	5.00	5.48	
26 Carbon disulfide	76	3.654	3.648	0.006	98	30868	5.00	5.30	
28 3-Chloro-1-propene	76	3.940	3.946	-0.006	90	8133	5.00	4.75	
30 Methyl acetate	43	3.970	3.976	-0.006	95	31286	10.0	11.2	
31 Methylene Chloride	84	4.177	4.165	0.012	84	25720	5.00	5.00	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	92	16447	50.0	56.4	
33 Acrylonitrile	53	4.554	4.554	0.000	98	73302	50.0	53.7	
34 trans-1,2-Dichloroethene	96	4.591	4.584	0.007	74	17158	5.00	5.68	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	84	38357	5.00	4.73	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	89	24902	5.00	6.42	
37 1,1-Dichloroethane	63	5.211	5.217	-0.006	96	28319	5.00	5.39	
38 Vinyl acetate	43	5.272	5.272	0.000	97	27185	5.00	5.09	
44 2,2-Dichloropropane	97	5.947	5.959	-0.012	46	3769	5.00	5.63	
45 cis-1,2-Dichloroethene	96	5.953	5.965	-0.012	79	17858	5.00	5.17	
46 2-Butanone (MEK)	43	5.984	5.978	0.006	98	50216	25.0	24.9	
49 Chlorobromomethane	128	6.245	6.245	0.000	93	8216	5.00	5.35	
51 Tetrahydrofuran	42	6.264	6.263	0.001	93	14858	10.0	12.7	
52 Chloroform	83	6.391	6.391	0.000	91	29608	5.00	5.64	
53 1,1,1-Trichloroethane	97	6.556	6.549	0.007	97	20508	5.00	5.16	
54 Cyclohexane	56	6.616	6.622	-0.006	87	26974	5.00	5.50	
56 Carbon tetrachloride	117	6.726	6.726	0.000	88	17231	5.00	5.21	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	96	22014	5.00	5.13	
57 Isobutyl alcohol	41	6.951	6.945	0.006	43	13122	125.0	121.7	
58 Benzene	78	6.951	6.951	0.000	96	74686	5.00	5.67	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	21038	5.00	5.48	
62 n-Heptane	43	7.316	7.316	0.000	56	16453	5.00	5.30	
64 Trichloroethene	130	7.681	7.687	-0.006	95	17490	5.00	5.28	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	25605	5.00	5.11	
67 1,2-Dichloropropane	63	7.955	7.961	-0.006	93	16316	5.00	5.32	
68 Dibromomethane	93	8.046	8.046	0.000	90	8641	5.00	4.81	
70 1,4-Dioxane	88	8.040	8.052	-0.012	5	2333	100.0	74.8	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	16257	5.00	4.61	
73 2-Chloroethyl vinyl ether	63	8.551	8.545	0.006	92	18086	10.0	8.19	
74 cis-1,3-Dichloropropene	75	8.691	8.685	0.006	95	19479	5.00	4.55	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	96	79892	25.0	26.4	
76 Toluene	91	9.019	9.019	0.000	98	71883	5.00	6.12	
77 trans-1,3-Dichloropropene	75	9.263	9.269	-0.006	92	14443	5.00	4.52	
78 Ethyl methacrylate	69	9.330	9.330	0.000	90	16030	5.00	4.16	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	89	14755	5.00	6.03	
80 Tetrachloroethene	164	9.530	9.530	0.000	95	13528	5.00	6.04	
81 1,3-Dichloropropane	76	9.616	9.615	0.001	90	26359	5.00	5.83	
82 2-Hexanone	43	9.683	9.682	0.000	98	57842	25.0	25.0	
84 Chlorodibromomethane	129	9.835	9.834	0.001	92	9414	5.00	4.55	
85 Ethylene Dibromide	107	9.944	9.944	0.000	98	13462	5.00	5.36	
86 3-Chlorobenzotrifluoride	180	10.413	10.412	0.001	90	25343	5.00	6.26	
87 Chlorobenzene	112	10.437	10.437	0.000	94	47566	5.00	6.22	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	21933	5.00	5.87	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	88	12587	5.00	5.18	
90 Ethylbenzene	106	10.534	10.534	0.000	98	22622	5.00	5.30	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	25553	5.00	4.90	
92 o-Xylene	106	11.051	11.051	0.000	95	25240	5.00	5.08	
93 Styrene	104	11.076	11.069	0.007	93	42810	5.00	5.09	
94 Bromoform	173	11.252	11.252	0.000	92	6015	5.00	4.68	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	96	21074	5.00	5.44	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	64937	5.00	5.35	
100 Bromobenzene	156	11.739	11.739	0.000	93	16032	5.00	5.15	
99 1,1,2,2-Tetrachloroethane	83	11.739	11.745	-0.006	77	20749	5.00	5.73	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.775	0.012	75	4170	5.00	4.44	
101 1,2,3-Trichloropropane	110	11.800	11.793	0.007	85	6588	5.00	5.12	
103 N-Propylbenzene	120	11.842	11.842	0.000	99	17451	5.00	4.90	
104 2-Chlorotoluene	126	11.927	11.927	0.000	96	14458	5.00	4.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	16155	5.00	4.83	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	95	48645	5.00	4.78	
107 4-Chlorotoluene	126	12.061	12.055	0.006	96	16940	5.00	5.10	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	41329	5.00	4.85	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	50171	5.00	4.84	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.456	0.001	95	15090	5.00	5.82	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	60251	5.00	5.07	
113 1,3-Dichlorobenzene	146	12.694	12.688	0.006	96	30355	5.00	5.45	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	47431	5.00	4.79	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	31756	5.00	5.56	
116 2,4-Dichloro-1-(trifluorom	214	12.840	12.828	0.012	94	12460	5.00	5.16	
118 2,5-Dichlorobenzotrifluori	214	12.882	12.870	0.012	0	13980	5.00	5.36	
120 n-Butylbenzene	91	13.156	13.150	0.006	96	39215	5.00	4.86	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	85	30057	5.00	5.66	
122 1,2-Dibromo-3-Chloropropan	75	13.977	13.971	0.006	81	2690	5.00	4.57	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.130	14.117	0.013	0	47367	15.0	14.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.561	14.555	0.006	0	30402	10.0	8.74	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	92	12140	5.00	5.00	
127 Hexachlorobutadiene	225	15.012	14.993	0.019	91	4721	5.00	5.31	
128 Naphthalene	128	15.127	15.103	0.024	96	33677	5.00	4.07	
129 1,2,3-Trichlorobenzene	180	15.371	15.346	0.025	95	11407	5.00	5.14	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	5175	5.00	4.91	
130 2,3,6-Trichlorotoluene	159	16.338	16.307	0.031	88	4086	5.00	4.17	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.97	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.8	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.06	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 0.20	Units: uL
VOA8260VOAPRI_00263	Amount Added: 0.20	Units: uL
voaWAcro1stRe_00016	Amount Added: 4.00	Units: uL
voaWVA1stRest_00017	Amount Added: 0.20	Units: uL
voaWEEmix1stR_00009	Amount Added: 0.20	Units: uL
voaW2clev1stR_00013	Amount Added: 0.20	Units: uL
voaWKetmix1st_00004	Amount Added: 0.80	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D

Injection Date: 27-Jul-2017 00:51:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD1

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

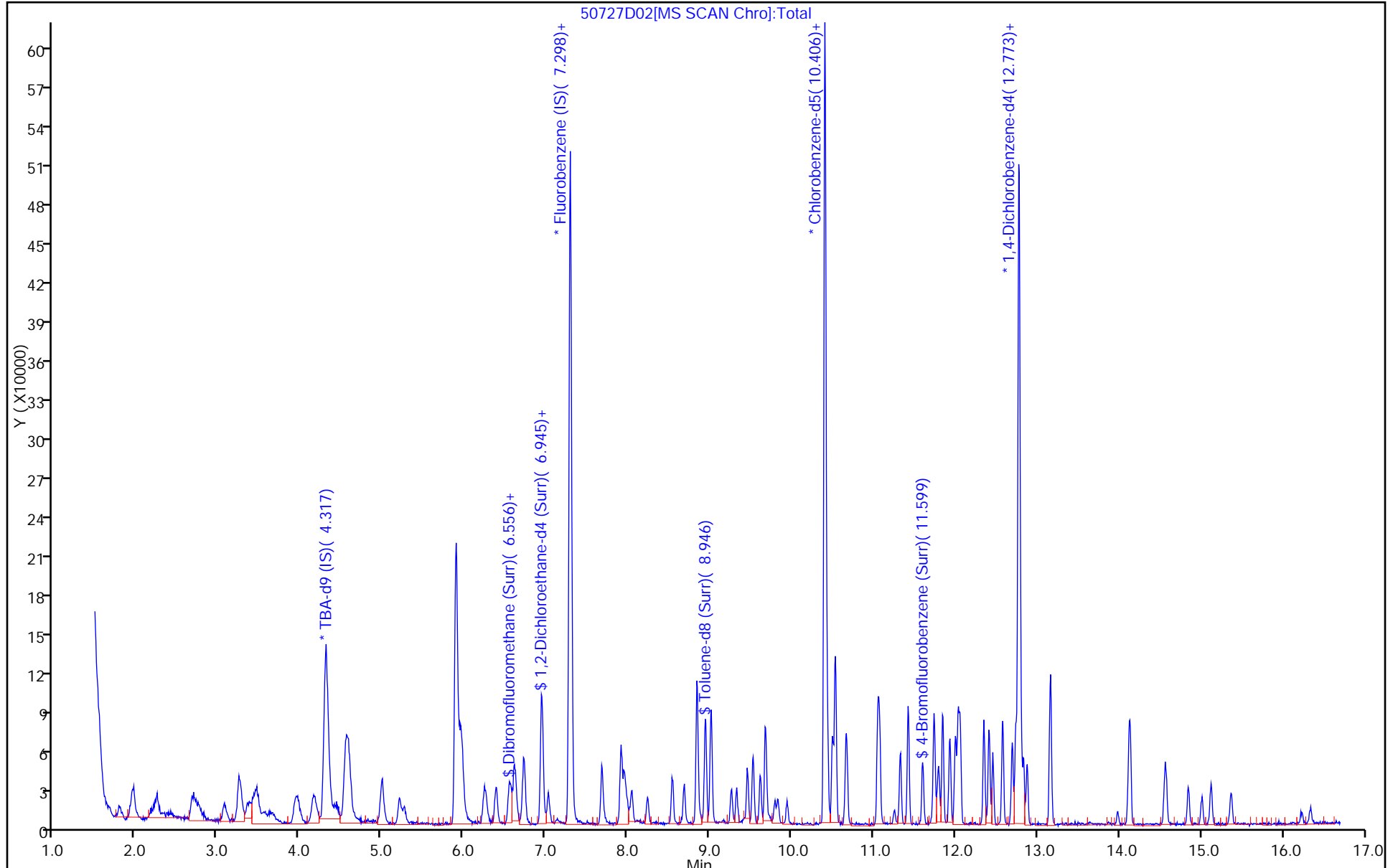
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

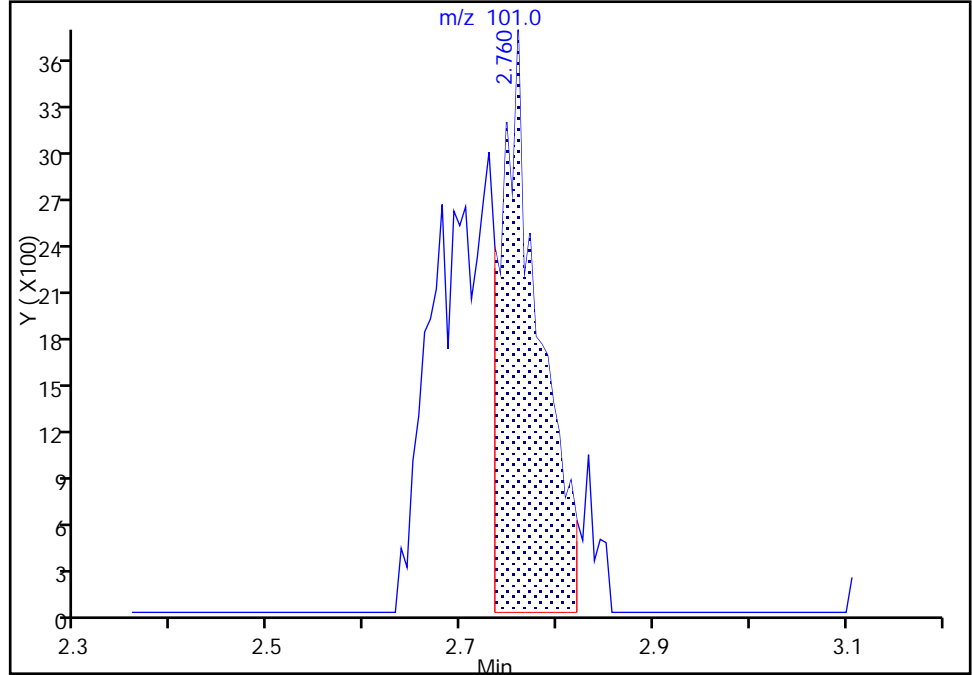
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D  
Injection Date: 27-Jul-2017 00:51:30 Instrument ID: CHHP5  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

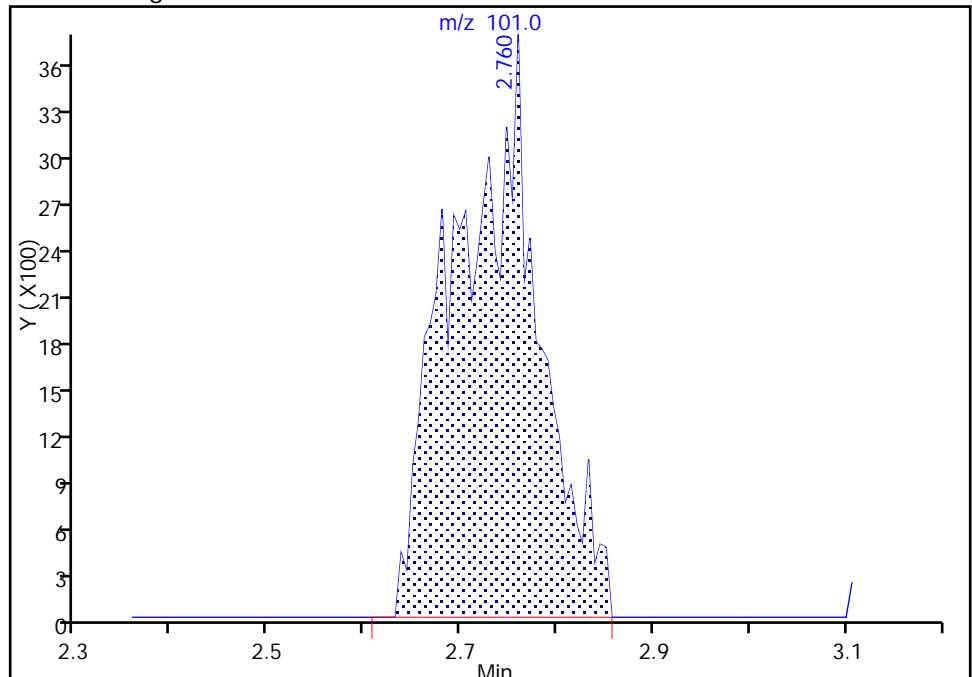
RT: 2.76  
Area: 10302  
Amount: 3.465076  
Amount Units: ng

Processing Integration Results



RT: 2.76  
Area: 22371  
Amount: 5.667373  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:06:53  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 27-Jul-2017 01:15:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-003  
 Misc. Info.: IC VSTD5  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:04:47 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:14:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.319	4.323	-0.004	0	223811	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	98	538128	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	85	123664	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.773	0.002	94	168910	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.576	6.574	0.002	94	65453	25.0	25.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.947	6.945	0.002	0	82071	25.0	26.0	
\$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	278432	25.0	28.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.600	11.599	0.001	87	94618	25.0	26.6	
11 Dichlorodifluoromethane	85	1.648	1.646	0.002	100	84559	25.0	27.0	
12 Chloromethane	50	1.794	1.804	-0.010	99	78965	25.0	25.1	
13 Vinyl chloride	62	1.946	1.944	0.002	98	82670	25.0	25.9	
14 Butadiene	39	1.964	1.969	-0.004	92	74553	25.0	25.7	
15 Bromomethane	94	2.262	2.254	0.008	91	42224	25.0	28.0	
16 Chloroethane	64	2.421	2.419	0.001	98	47273	25.0	26.9	
17 Dichlorofluoromethane	67	2.700	2.699	0.001	97	119855	25.0	27.0	
18 Trichlorofluoromethane	101	2.749	2.741	0.008	94	104824	25.0	26.7	M
20 Ethyl ether	59	3.084	3.076	0.008	87	66542	25.0	26.1	
21 Acrolein	56	3.266	3.252	0.014	98	73476	125.0	114.3	
22 1,1-Dichloroethene	96	3.376	3.368	0.008	96	67928	25.0	25.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.436	3.441	-0.005	93	73846	25.0	25.5	
24 Acetone	43	3.479	3.477	0.002	96	77890	50.0	55.3	
25 Iodomethane	142	3.570	3.562	0.008	98	103869	25.0	25.1	
26 Carbon disulfide	76	3.649	3.648	0.001	99	131730	25.0	22.8	
28 3-Chloro-1-propene	76	3.954	3.946	0.008	92	39946	25.0	23.5	
30 Methyl acetate	43	3.978	3.976	0.002	97	132543	50.0	47.6	
31 Methylene Chloride	84	4.166	4.165	0.001	88	84822	25.0	24.4	
32 2-Methyl-2-propanol	59	4.446	4.451	-0.005	92	64738	250.0	244.6	
33 Acrylonitrile	53	4.562	4.554	0.008	100	336508	250.0	248.3	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	98	73445	25.0	24.5	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	96	196780	25.0	24.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.006	4.998	0.008	92	96542	25.0	25.1	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	133976	25.0	25.7	
38 Vinyl acetate	43	5.268	5.272	-0.004	97	115000	25.0	21.7	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	57	15889	25.0	23.9	
45 cis-1,2-Dichloroethene	96	5.961	5.965	-0.004	81	85931	25.0	25.0	
46 2-Butanone (MEK)	43	5.985	5.978	0.007	93	105960	50.0	52.9	
49 Chlorobromomethane	128	6.253	6.245	0.008	94	38047	25.0	24.9	
51 Tetrahydrofuran	42	6.271	6.263	0.008	86	52866	50.0	45.3	
52 Chloroform	83	6.393	6.391	0.002	93	134431	25.0	25.8	
53 1,1,1-Trichloroethane	97	6.557	6.549	0.008	98	98927	25.0	25.1	
54 Cyclohexane	56	6.618	6.622	-0.004	89	124196	25.0	25.5	
56 Carbon tetrachloride	117	6.722	6.726	-0.004	95	80446	25.0	24.5	
55 1,1-Dichloropropene	75	6.746	6.738	0.008	98	109851	25.0	25.8	
57 Isobutyl alcohol	41	6.947	6.945	0.002	82	61305	625.0	572.5	
58 Benzene	78	6.953	6.951	0.002	97	339765	25.0	26.0	
59 1,2-Dichloroethane	62	7.032	7.030	0.002	97	95627	25.0	25.1	
62 n-Heptane	43	7.318	7.316	0.002	90	81002	25.0	26.3	
64 Trichloroethene	130	7.689	7.687	0.002	98	83072	25.0	25.2	
66 Methylcyclohexane	83	7.920	7.918	0.002	86	125697	25.0	25.2	
67 1,2-Dichloropropane	63	7.963	7.961	0.002	94	74777	25.0	24.5	
68 Dibromomethane	93	8.048	8.046	0.002	95	45949	25.0	25.7	
70 1,4-Dioxane	88	8.048	8.052	-0.004	38	15162	500.0	489.4	M
71 Dichlorobromomethane	83	8.242	8.241	0.001	98	84070	25.0	24.0	
73 2-Chloroethyl vinyl ether	63	8.547	8.545	0.002	95	103158	50.0	47.0	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	96744	25.0	22.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.845	8.843	0.002	95	154465	50.0	48.7	
76 Toluene	91	9.015	9.019	-0.004	98	351840	25.0	28.5	
77 trans-1,3-Dichloropropene	75	9.270	9.269	0.001	92	79122	25.0	23.6	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	96602	25.0	23.9	
79 1,1,2-Trichloroethane	97	9.465	9.457	0.008	90	67966	25.0	26.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	67579	25.0	28.7	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	127957	25.0	26.9	
82 2-Hexanone	43	9.678	9.682	-0.004	95	122936	50.0	50.5	
84 Chlorodibromomethane	129	9.836	9.834	0.002	89	53302	25.0	24.5	
85 Ethylene Dibromide	107	9.946	9.944	0.002	100	67745	25.0	25.7	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	95	109109	25.0	25.7	
87 Chlorobenzene	112	10.432	10.437	-0.005	95	217561	25.0	27.1	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	95	101825	25.0	26.0	
89 1,1,1,2-Tetrachloroethane	131	10.530	10.528	0.002	92	65901	25.0	25.8	
90 Ethylbenzene	106	10.536	10.534	0.002	98	120759	25.0	26.9	
91 m-Xylene & p-Xylene	106	10.670	10.668	0.002	0	151114	25.0	27.6	
92 o-Xylene	106	11.053	11.051	0.002	96	138375	25.0	26.5	
93 Styrene	104	11.071	11.069	0.002	95	242031	25.0	27.4	
94 Bromoform	173	11.254	11.252	0.002	97	30000	25.0	22.2	
96 2-Chlorobenzotrifluoride	180	11.327	11.325	0.002	97	107103	25.0	26.3	
97 Isopropylbenzene	105	11.424	11.422	0.002	96	356966	25.0	28.0	
100 Bromobenzene	156	11.734	11.739	-0.005	95	83376	25.0	25.4	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	94	100341	25.0	26.4	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	77	23168	25.0	23.4	
101 1,2,3-Trichloropropane	110	11.789	11.793	-0.004	86	32588	25.0	24.1	
103 N-Propylbenzene	120	11.838	11.842	-0.004	99	95261	25.0	25.4	
104 2-Chlorotoluene	126	11.929	11.927	0.002	96	83234	25.0	25.7	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	87067	25.0	24.7	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	95	290219	25.0	27.1	
107 4-Chlorotoluene	126	12.057	12.055	0.002	96	88877	25.0	25.4	
108 tert-Butylbenzene	119	12.349	12.347	0.002	93	236619	25.0	26.4	
110 1,2,4-Trimethylbenzene	105	12.410	12.408	0.002	97	288545	25.0	26.5	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	96	64854	25.0	23.8	
112 sec-Butylbenzene	105	12.574	12.572	0.002	94	336681	25.0	26.9	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	151590	25.0	25.9	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	97	277710	25.0	26.7	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	154714	25.0	25.7	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.828	0.001	96	64892	25.0	25.5	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	67486	25.0	24.6	
120 n-Butylbenzene	91	13.152	13.150	0.002	98	221777	25.0	26.1	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	98	145778	25.0	26.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	83	14158	25.0	22.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	260387	75.0	73.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.557	14.555	0.002	0	173187	50.0	47.3	
126 1,2,4-Trichlorobenzene	180	14.837	14.829	0.008	94	60672	25.0	23.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	24054	25.0	25.7	
128 Naphthalene	128	15.111	15.103	0.008	97	191971	25.0	22.1	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	95	57325	25.0	24.6	
131 2,4,5-Trichlorotoluene	159	16.200	16.198	0.002	0	23799	25.0	21.5	
130 2,3,6-Trichlorotoluene	159	16.309	16.307	0.002	95	23065	25.0	22.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		50.0	49.5	
S 133 Xylenes, Total	106				0		50.0	54.1	
S 135 1,3-Dichloropropene, Total	1				0		50.0	46.3	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00263	Amount Added: 1.00	Units: uL
voaW2clev1stR_00013	Amount Added: 1.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 5.00	Units: uL
voaWVA1stRest_00017	Amount Added: 1.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 1.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 1.00	Units: uL
voaWKetmix1st_00004	Amount Added: 1.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D

Injection Date: 27-Jul-2017 01:15:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD5

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

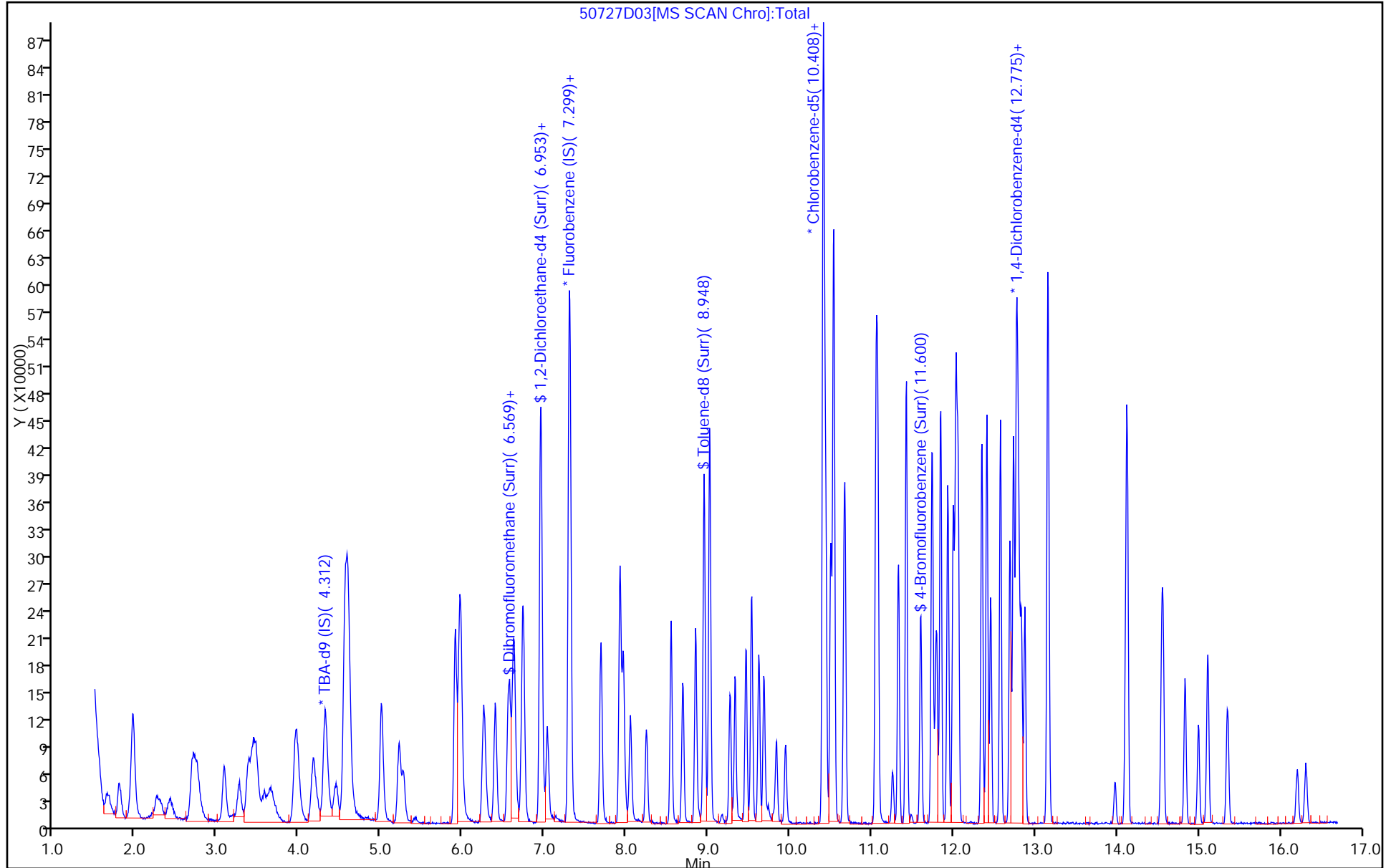
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

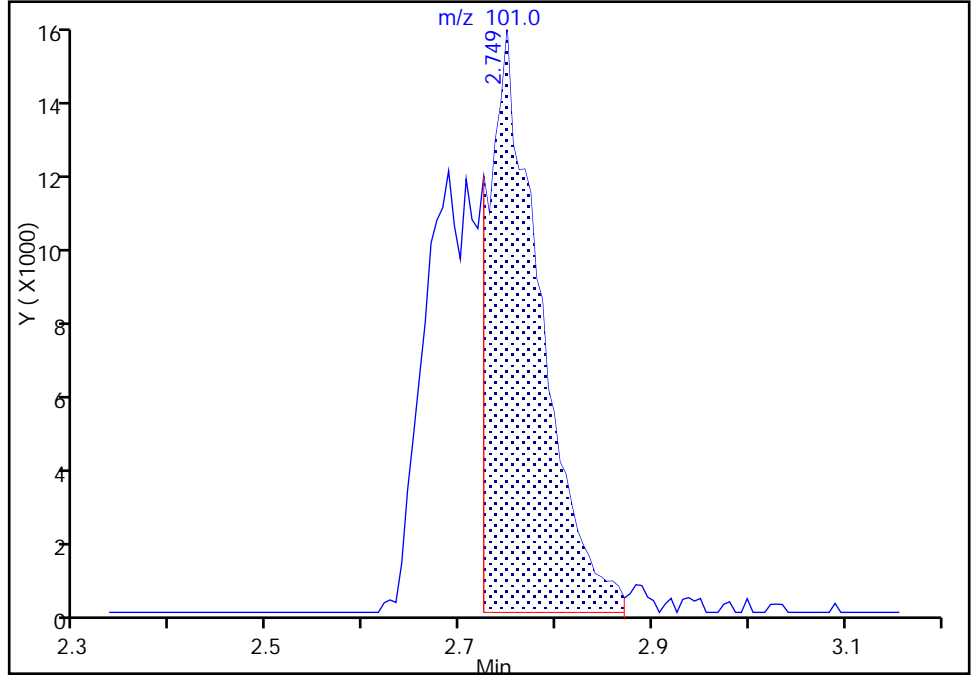
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Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

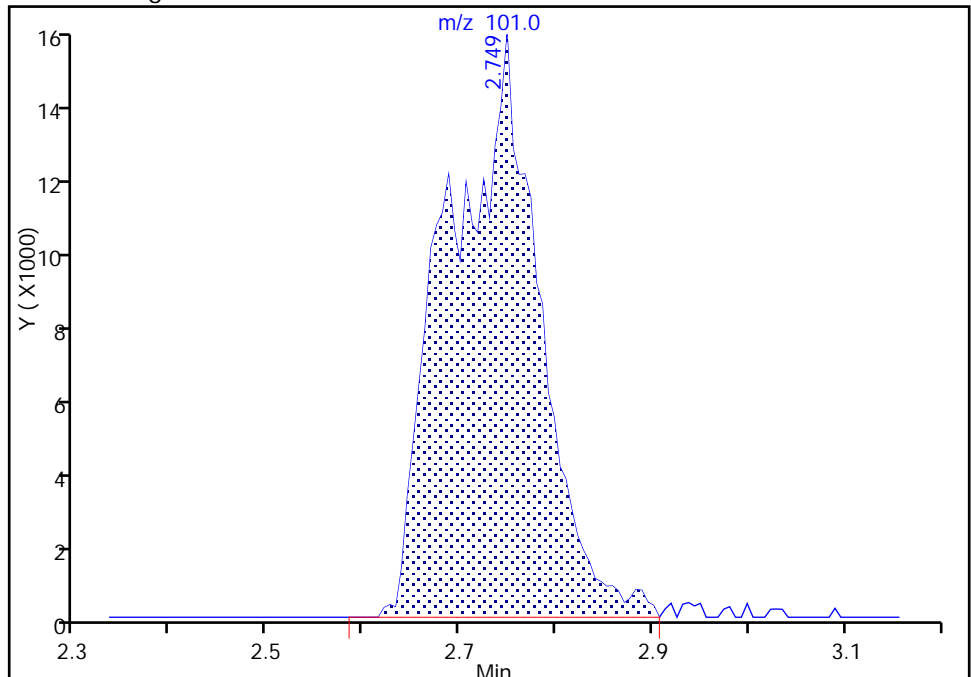
RT: 2.75  
Area: 59636  
Amount: 17.371088  
Amount Units: ng

Processing Integration Results



RT: 2.75  
Area: 104824  
Amount: 26.731985  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:13:52  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

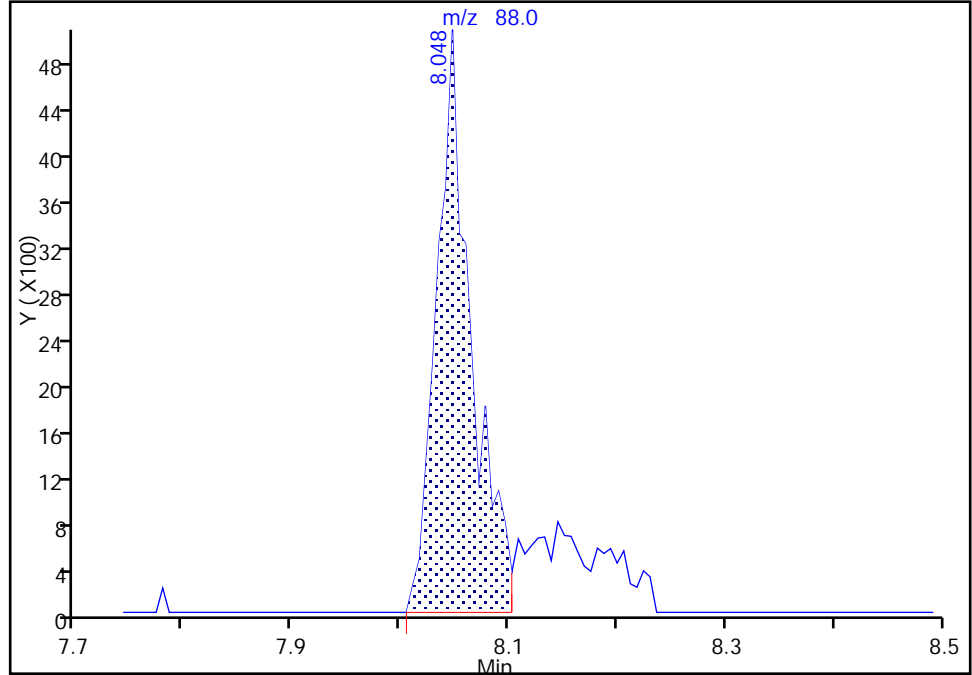
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Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

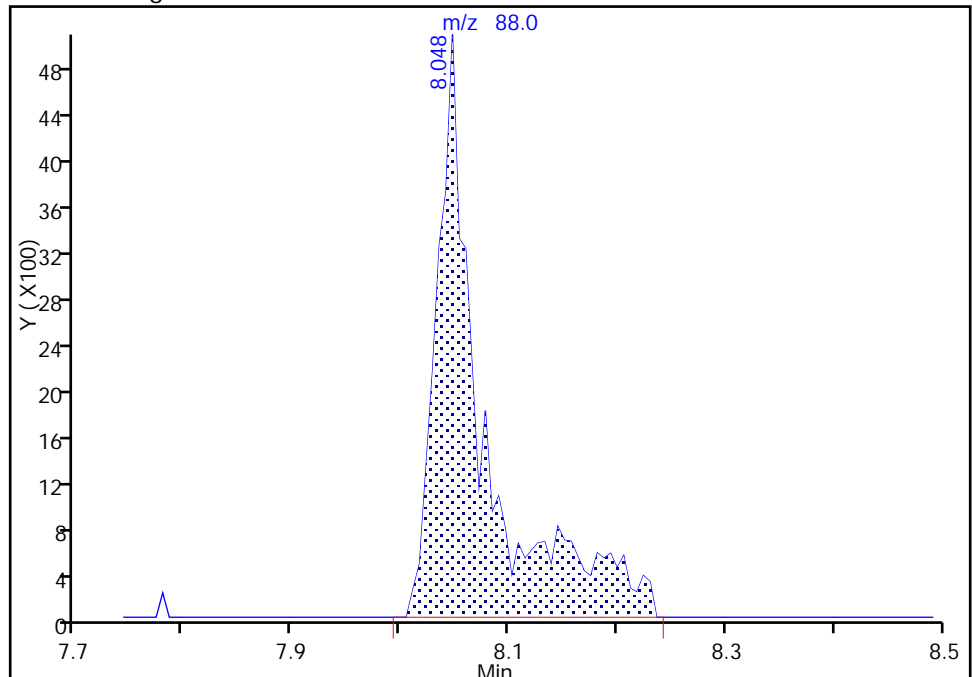
RT: 8.05  
Area: 11273  
Amount: 403.3803  
Amount Units: ng

Processing Integration Results



RT: 8.05  
Area: 15162  
Amount: 489.3788  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:14:22  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 27-Jul-2017 01:39:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-004  
 Misc. Info.: ICIS VSTD10  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:04:50 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:16:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.328	0.000	0	240414	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.297	0.000	99	539679	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.405	0.000	86	132843	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.772	0.000	94	174621	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.573	0.000	94	127700	50.0	49.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.944	0.000	0	159071	50.0	50.2	
\$ 7 Toluene-d8 (Surr)	98	8.951	8.951	0.000	92	541748	50.0	51.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.598	0.000	87	191158	50.0	50.1	
11 Dichlorodifluoromethane	85	1.663	1.663	0.000	99	159957	50.0	51.0	
12 Chloromethane	50	1.797	1.797	0.000	99	154943	50.0	49.1	
13 Vinyl chloride	62	1.955	1.955	0.000	98	162634	50.0	50.8	
14 Butadiene	39	1.968	1.968	0.000	94	143576	50.0	49.4	
15 Bromomethane	94	2.272	2.272	0.000	89	81346	50.0	53.8	
16 Chloroethane	64	2.424	2.424	0.000	98	86601	50.0	49.2	
17 Dichlorofluoromethane	67	2.710	2.710	0.000	96	224450	50.0	50.4	
18 Trichlorofluoromethane	101	2.746	2.746	0.000	97	205127	50.0	52.2	M
20 Ethyl ether	59	3.087	3.087	0.000	89	126496	50.0	49.4	
21 Acrolein	56	3.269	3.269	0.000	99	101829	150.0	158.0	
22 1,1-Dichloroethene	96	3.373	3.373	0.000	83	131576	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.440	0.000	91	141127	50.0	48.7	
24 Acetone	43	3.482	3.482	0.000	100	149782	100.0	106.1	
25 Iodomethane	142	3.580	3.580	0.000	99	200342	50.0	48.3	
26 Carbon disulfide	76	3.659	3.659	0.000	98	266935	50.0	46.0	
28 3-Chloro-1-propene	76	3.951	3.951	0.000	92	83167	50.0	48.7	
30 Methyl acetate	43	3.975	3.975	0.000	97	283974	100.0	101.6	
31 Methylene Chloride	84	4.170	4.170	0.000	90	164284	50.0	50.2	
32 2-Methyl-2-propanol	59	4.450	4.450	0.000	93	139891	500.0	492.0	
33 Acrylonitrile	53	4.559	4.559	0.000	99	708552	500.0	521.4	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	147191	50.0	48.9	
35 Methyl tert-butyl ether	73	4.608	4.608	0.000	96	390184	50.0	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	5.003	0.000	93	186124	50.0	48.2	
37 1,1-Dichloroethane	63	5.222	5.222	0.000	96	261874	50.0	50.0	
38 Vinyl acetate	43	5.271	5.271	0.000	97	245879	50.0	46.2	
44 2,2-Dichloropropane	97	5.958	5.958	0.000	72	31118	50.0	46.7	
45 cis-1,2-Dichloroethene	96	5.971	5.971	0.000	79	172690	50.0	50.2	
46 2-Butanone (MEK)	43	5.977	5.977	0.000	98	214731	100.0	106.9	
49 Chlorobromomethane	128	6.250	6.250	0.000	95	75687	50.0	49.5	
51 Tetrahydrofuran	42	6.269	6.269	0.000	89	117485	100.0	100.4	
52 Chloroform	83	6.396	6.396	0.000	92	254354	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.555	6.555	0.000	98	196286	50.0	49.6	
54 Cyclohexane	56	6.621	6.621	0.000	89	239333	50.0	49.0	
56 Carbon tetrachloride	117	6.719	6.719	0.000	97	162849	50.0	49.5	
55 1,1-Dichloropropene	75	6.743	6.743	0.000	97	215336	50.0	50.4	
57 Isobutyl alcohol	41	6.950	6.950	0.000	84	136973	1250.0	1275.5	
58 Benzene	78	6.950	6.950	0.000	97	669098	50.0	51.0	
59 1,2-Dichloroethane	62	7.035	7.035	0.000	97	190422	50.0	49.8	
62 n-Heptane	43	7.315	7.315	0.000	86	154370	50.0	50.0	
64 Trichloroethene	130	7.692	7.692	0.000	98	164695	50.0	49.9	
66 Methylcyclohexane	83	7.917	7.917	0.000	86	253511	50.0	50.8	
67 1,2-Dichloropropane	63	7.960	7.960	0.000	94	150135	50.0	49.1	
68 Dibromomethane	93	8.045	8.045	0.000	95	88395	50.0	49.4	
70 1,4-Dioxane	88	8.051	8.051	0.000	40	33209	1000.0	1068.8	M
71 Dichlorobromomethane	83	8.246	8.246	0.000	99	171049	50.0	48.7	
73 2-Chloroethyl vinyl ether	63	8.544	8.544	0.000	92	219328	100.0	99.7	
74 cis-1,3-Dichloropropene	75	8.690	8.690	0.000	95	204344	50.0	47.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.848	8.848	0.000	96	361112	100.0	106.0	
76 Toluene	91	9.018	9.018	0.000	99	692901	50.0	52.3	
77 trans-1,3-Dichloropropene	75	9.268	9.268	0.000	93	170710	50.0	47.4	
78 Ethyl methacrylate	69	9.329	9.329	0.000	88	222171	50.0	51.1	
79 1,1,2-Trichloroethane	97	9.456	9.456	0.000	90	138196	50.0	50.1	
80 Tetrachloroethene	164	9.535	9.535	0.000	97	126273	50.0	50.0	
81 1,3-Dichloropropane	76	9.621	9.621	0.000	89	256477	50.0	50.3	
82 2-Hexanone	43	9.681	9.681	0.000	94	278579	100.0	106.6	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	114911	50.0	49.3	
85 Ethylene Dibromide	107	9.943	9.943	0.000	98	142489	50.0	50.3	
86 3-Chlorobenzotrifluoride	180	10.411	10.411	0.000	93	222871	50.0	48.8	
87 Chlorobenzene	112	10.436	10.436	0.000	95	431311	50.0	50.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.497	0.000	96	207774	50.0	49.3	
89 1,1,1,2-Tetrachloroethane	131	10.533	10.533	0.000	94	137710	50.0	50.2	
90 Ethylbenzene	106	10.533	10.533	0.000	98	249792	50.0	51.9	
91 m-Xylene & p-Xylene	106	10.667	10.667	0.000	0	306948	50.0	52.2	
92 o-Xylene	106	11.050	11.050	0.000	96	288885	50.0	51.5	
93 Styrene	104	11.068	11.068	0.000	95	498873	50.0	52.6	
94 Bromoform	173	11.257	11.257	0.000	96	67829	50.0	46.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.324	0.000	97	216286	50.0	49.5	
97 Isopropylbenzene	105	11.421	11.421	0.000	95	726432	50.0	53.1	
100 Bromobenzene	156	11.738	11.738	0.000	94	163748	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.738	0.000	95	211912	50.0	51.9	
102 trans-1,4-Dichloro-2-buten	53	11.780	11.780	0.000	83	49334	50.0	48.3	
101 1,2,3-Trichloropropane	110	11.792	11.792	0.000	85	72643	50.0	51.9	
103 N-Propylbenzene	120	11.841	11.841	0.000	98	198029	50.0	51.1	
104 2-Chlorotoluene	126	11.926	11.926	0.000	97	167713	50.0	50.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.999	0.000	96	185343	50.0	50.9	
106 1,3,5-Trimethylbenzene	105	12.030	12.030	0.000	94	578518	50.0	52.2	
107 4-Chlorotoluene	126	12.054	12.054	0.000	96	180584	50.0	50.0	
108 tert-Butylbenzene	119	12.346	12.346	0.000	93	480729	50.0	51.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	588662	50.0	52.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	138659	50.0	49.1	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	679839	50.0	52.6	
113 1,3-Dichlorobenzene	146	12.687	12.687	0.000	97	305374	50.0	50.4	
114 4-Isopropyltoluene	119	12.735	12.735	0.000	97	570403	50.0	53.0	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	95	315614	50.0	50.8	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.827	0.000	95	125268	50.0	47.7	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.875	0.000	0	140272	50.0	49.4	
120 n-Butylbenzene	91	13.149	13.149	0.000	98	454742	50.0	51.8	
121 1,2-Dichlorobenzene	146	13.161	13.161	0.000	98	290492	50.0	50.3	
122 1,2-Dibromo-3-Chloropropan	75	13.976	13.976	0.000	85	30986	50.0	48.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.122	14.122	0.000	0	566788	150.0	154.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.554	14.554	0.000	0	380181	100.0	100.4	
126 1,2,4-Trichlorobenzene	180	14.834	14.834	0.000	93	134753	50.0	51.0	
127 Hexachlorobutadiene	225	14.992	14.992	0.000	97	49048	50.0	50.8	
128 Naphthalene	128	15.108	15.108	0.000	97	465533	50.0	51.7	
129 1,2,3-Trichlorobenzene	180	15.351	15.351	0.000	95	117120	50.0	48.5	
131 2,4,5-Trichlorotoluene	159	16.203	16.203	0.000	0	53498	50.0	46.6	
130 2,3,6-Trichlorotoluene	159	16.312	16.312	0.000	97	53869	50.0	50.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 2.00	Units: uL
voaW2clev1stR_00013	Amount Added: 2.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL
voaWVA1stRest_00017	Amount Added: 2.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 2.00	Units: uL
voaWKetmix1st_00004	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D

Injection Date: 27-Jul-2017 01:39:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICIS VSTD10

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

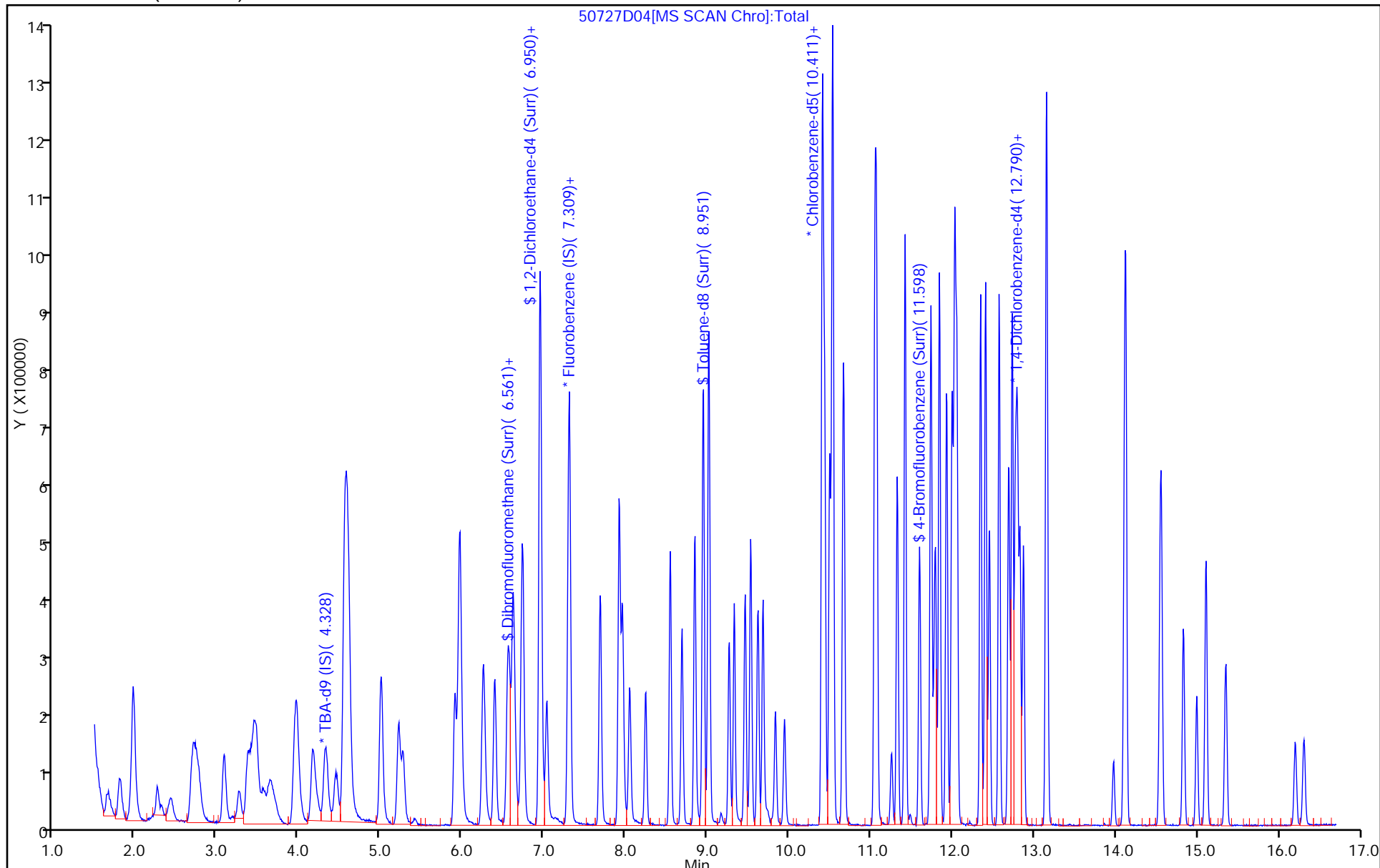
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

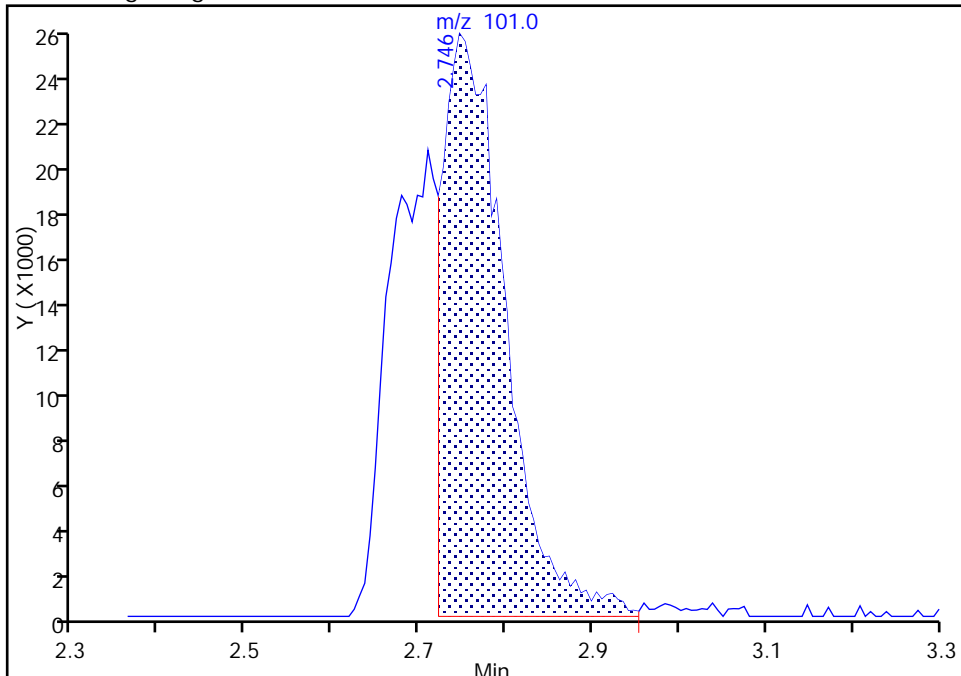
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Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5  
Lims ID: ICIS VSTD10  
Client ID:  
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

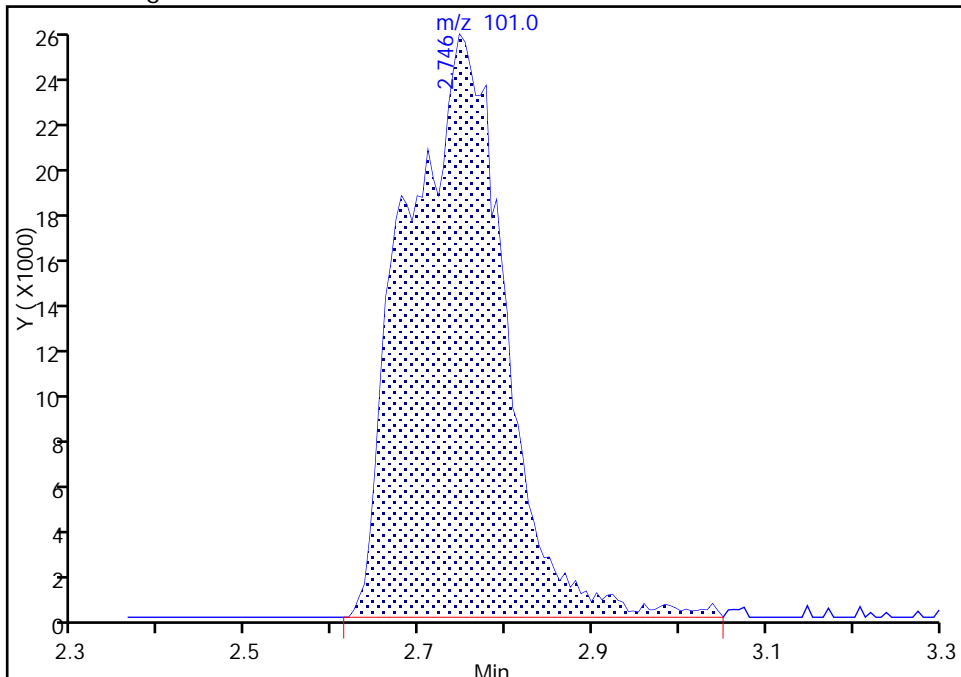
RT: 2.75  
Area: 129465  
Amount: 34.020484  
Amount Units: ng

Processing Integration Results



RT: 2.75  
Area: 205127  
Amount: 52.160696  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:15:11  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

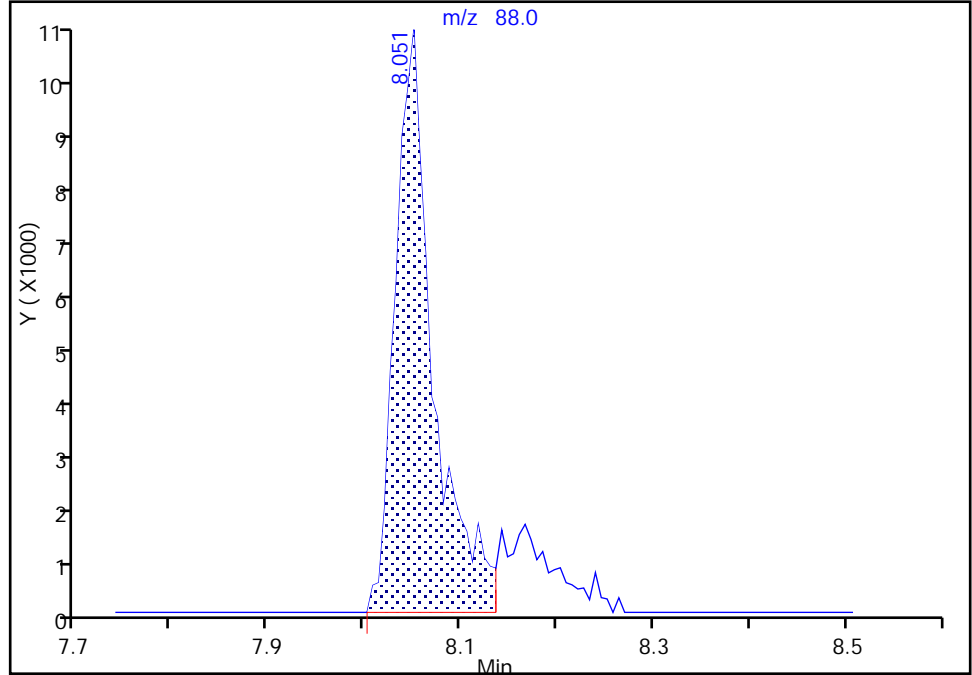
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Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5  
Lims ID: ICIS VSTD10  
Client ID:  
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

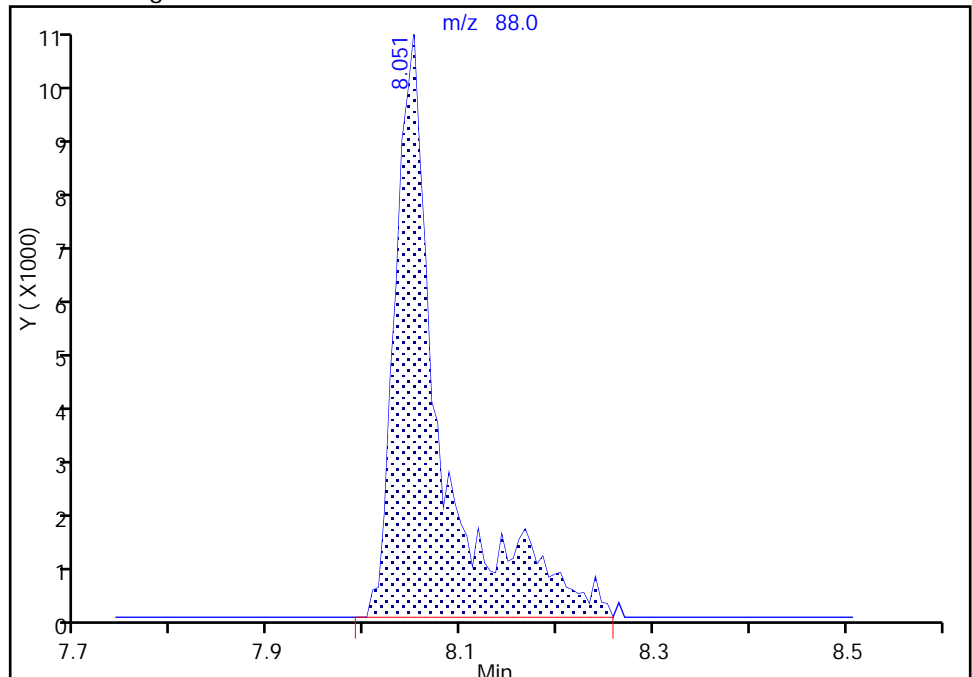
RT: 8.05  
Area: 27736  
Amount: 937.4398  
Amount Units: ng

Processing Integration Results



RT: 8.05  
Area: 33209  
Amount: 1068.7953  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:15:41  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 27-Jul-2017 02:02:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-005  
 Misc. Info.: IC VSTD15  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:04:55 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:16:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.323	4.323	0.000	0	240814	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	98	519897	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	84	132905	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	91	174376	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	93	193042	75.0	77.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.945	6.945	0.000	0	234269	75.0	76.8	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	780569	75.0	73.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	88	289432	75.0	75.8	
11 Dichlorodifluoromethane	85	1.646	1.646	0.000	98	226899	75.0	75.1	
12 Chloromethane	50	1.804	1.804	0.000	99	232300	75.0	76.5	
13 Vinyl chloride	62	1.944	1.944	0.000	98	221295	75.0	71.8	
14 Butadiene	39	1.969	1.969	0.000	96	204212	75.0	72.9	
15 Bromomethane	94	2.254	2.254	0.000	90	112119	75.0	76.9	
16 Chloroethane	64	2.419	2.419	0.000	99	128899	75.0	76.1	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	327021	75.0	76.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	94	283194	75.0	74.8	
20 Ethyl ether	59	3.076	3.076	0.000	87	188662	75.0	76.6	
21 Acrolein	56	3.252	3.252	0.000	99	115103	175.0	185.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	97	190985	75.0	75.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	92	206212	75.0	73.8	
24 Acetone	43	3.477	3.477	0.000	100	227784	150.0	167.5	
25 Iodomethane	142	3.562	3.562	0.000	96	304618	75.0	76.2	
26 Carbon disulfide	76	3.648	3.648	0.000	98	403056	75.0	72.2	
28 3-Chloro-1-propene	76	3.946	3.946	0.000	92	121734	75.0	74.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	419273	150.0	155.7	
31 Methylene Chloride	84	4.165	4.165	0.000	87	242665	75.0	78.8	
32 2-Methyl-2-propanol	59	4.451	4.451	0.000	95	204334	750.0	717.5	
33 Acrylonitrile	53	4.554	4.554	0.000	98	1029651	750.0	786.5	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	222245	75.0	76.6	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	95	613933	75.0	78.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.998	4.998	0.000	93	266987	75.0	71.7	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	379320	75.0	75.2	
38 Vinyl acetate	43	5.272	5.272	0.000	97	400099	75.0	78.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	93	48893	75.0	76.2	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	259385	75.0	78.2	
46 2-Butanone (MEK)	43	5.978	5.978	0.000	98	321867	150.0	166.3	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	113290	75.0	76.8	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	176266	150.0	156.4	
52 Chloroform	83	6.391	6.391	0.000	93	389323	75.0	77.3	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	285488	75.0	74.9	
54 Cyclohexane	56	6.622	6.622	0.000	88	345041	75.0	73.4	
56 Carbon tetrachloride	117	6.726	6.726	0.000	97	238173	75.0	75.1	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	98	312373	75.0	75.9	
57 Isobutyl alcohol	41	6.945	6.945	0.000	61	216532	1875.0	2093.1	
58 Benzene	78	6.951	6.951	0.000	97	981851	75.0	77.7	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	98	292683	75.0	79.4	
62 n-Heptane	43	7.316	7.316	0.000	88	214813	75.0	72.2	
64 Trichloroethene	130	7.687	7.687	0.000	98	241861	75.0	76.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	358781	75.0	74.6	
67 1,2-Dichloropropane	63	7.961	7.961	0.000	96	227133	75.0	77.2	
68 Dibromomethane	93	8.046	8.046	0.000	95	135198	75.0	78.4	
70 1,4-Dioxane	88	8.052	8.052	0.000	38	46920	1500.0	1567.5	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	268080	75.0	79.2	
73 2-Chloroethyl vinyl ether	63	8.545	8.545	0.000	92	343066	150.0	162.0	
74 cis-1,3-Dichloropropene	75	8.685	8.685	0.000	96	320956	75.0	78.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	95	542662	150.0	159.2	
76 Toluene	91	9.019	9.019	0.000	99	1000479	75.0	75.5	
77 trans-1,3-Dichloropropene	75	9.269	9.269	0.000	93	278226	75.0	77.2	
78 Ethyl methacrylate	69	9.330	9.330	0.000	87	352819	75.0	81.1	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	209928	75.0	76.0	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	184171	75.0	72.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	88	397870	75.0	78.0	
82 2-Hexanone	43	9.682	9.682	0.000	93	419354	150.0	160.4	
84 Chlorodibromomethane	129	9.834	9.834	0.000	91	181267	75.0	77.7	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	223815	75.0	79.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	352260	75.0	77.1	
87 Chlorobenzene	112	10.437	10.437	0.000	94	660247	75.0	76.5	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	327327	75.0	77.7	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	92	212641	75.0	77.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	371119	75.0	77.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	452043	75.0	76.8	
92 o-Xylene	106	11.051	11.051	0.000	95	440285	75.0	78.5	
93 Styrene	104	11.069	11.069	0.000	94	745860	75.0	78.6	
94 Bromoform	173	11.252	11.252	0.000	96	112077	75.0	77.3	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	348911	75.0	79.8	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	1080505	75.0	78.9	
100 Bromobenzene	156	11.739	11.739	0.000	95	261052	75.0	77.1	
99 1,1,2,2-Tetrachloroethane	83	11.745	11.745	0.000	95	316221	75.0	77.4	
102 trans-1,4-Dichloro-2-buten	53	11.775	11.775	0.000	82	83561	75.0	81.9	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	109372	75.0	78.3	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	291693	75.0	75.4	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	256066	75.0	76.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	97	289960	75.0	79.7	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	94	866332	75.0	78.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	269544	75.0	74.7	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	721573	75.0	78.0	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	884487	75.0	78.6	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	219982	75.0	78.1	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	993968	75.0	77.0	
113 1,3-Dichlorobenzene	146	12.688	12.688	0.000	97	462404	75.0	76.5	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	96	837492	75.0	77.9	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	96	474362	75.0	76.4	
116 2,4-Dichloro-1-(trifluorom	214	12.828	12.828	0.000	94	206368	75.0	78.6	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	217211	75.0	76.6	
120 n-Butylbenzene	91	13.150	13.150	0.000	98	671190	75.0	76.5	
121 1,2-Dichlorobenzene	146	13.156	13.156	0.000	98	437966	75.0	76.0	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	83	47827	75.0	74.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	889724	225.0	243.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	620870	150.0	164.2	
126 1,2,4-Trichlorobenzene	180	14.829	14.829	0.000	94	200638	75.0	76.1	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	73984	75.0	76.7	
128 Naphthalene	128	15.103	15.103	0.000	97	733996	75.0	81.7	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	184932	75.0	76.8	
131 2,4,5-Trichlorotoluene	159	16.198	16.198	0.000	0	91488	75.0	79.9	
130 2,3,6-Trichlorotoluene	159	16.307	16.307	0.000	98	89402	75.0	83.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		150.0	154.8	
S 133 Xylenes, Total	106				0		150.0	155.3	
S 135 1,3-Dichloropropene, Total	1				0		150.0	155.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 3.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 3.00	Units: uL
voaW2clev1stR_00013	Amount Added: 3.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 7.00	Units: uL
voaWVA1stRest_00017	Amount Added: 3.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 3.00	Units: uL
voaWKetmix1st_00004	Amount Added: 3.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D

Injection Date: 27-Jul-2017 02:02:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD15

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

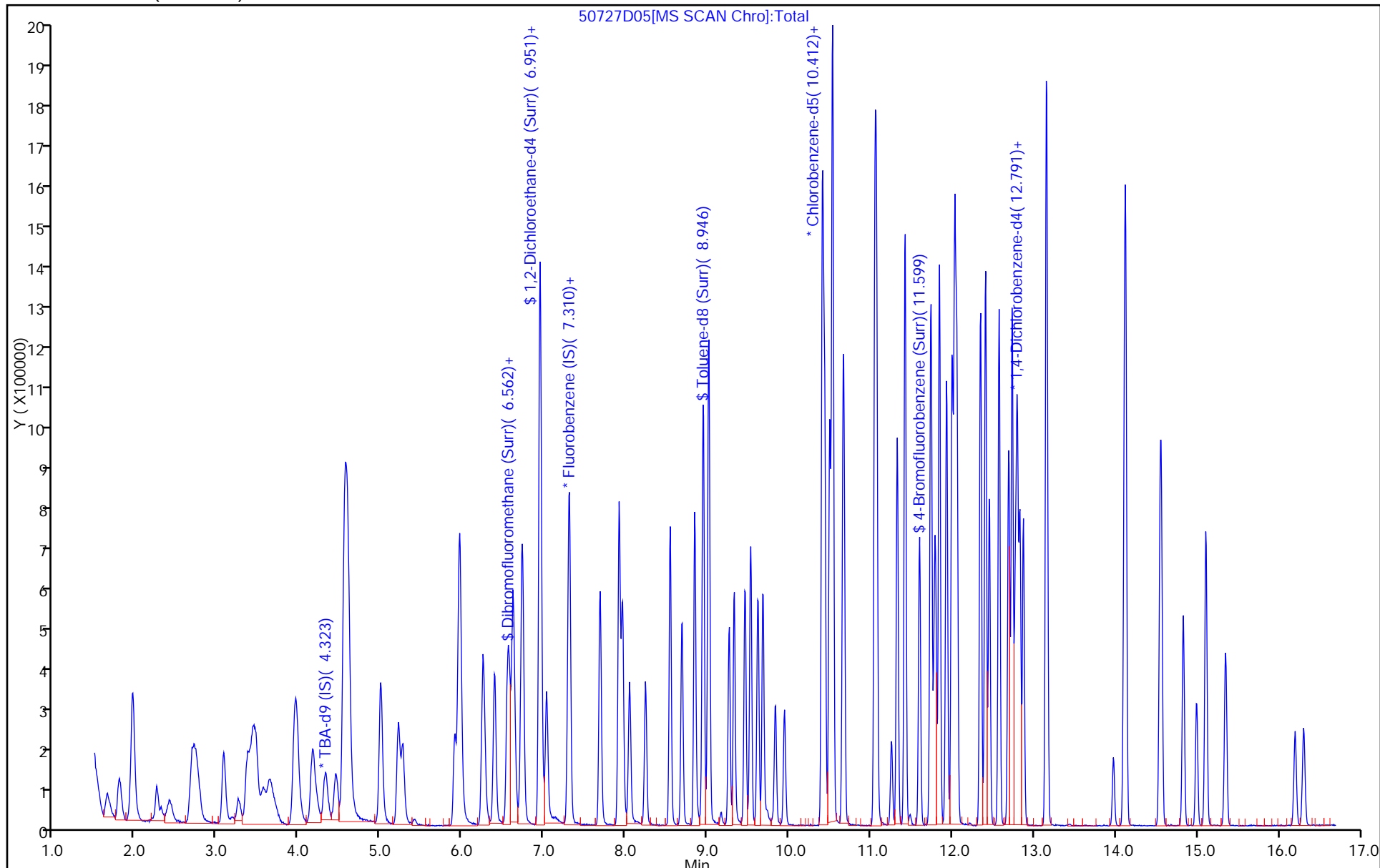
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 27-Jul-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-006  
 Misc. Info.: IC VSTD20  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:04:58 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:06:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.316	4.323	-0.007	0	252187	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	520193	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	132635	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	95	171832	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	93	257355	100.0	102.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	307676	100.0	100.8	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.946	-0.001	92	1040595	100.0	98.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	390879	100.0	102.5	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	286388	100.0	94.7	
12 Chloromethane	50	1.797	1.804	-0.007	99	302276	100.0	99.4	
13 Vinyl chloride	62	1.949	1.944	0.005	98	291558	100.0	94.5	
14 Butadiene	39	1.962	1.969	-0.006	92	260580	100.0	93.0	
15 Bromomethane	94	2.260	2.254	0.006	90	161865	100.0	111.0	
16 Chloroethane	64	2.412	2.419	-0.007	99	172552	100.0	101.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	97	436022	100.0	101.7	
18 Trichlorofluoromethane	101	2.734	2.741	-0.007	96	371684	100.0	98.1	
20 Ethyl ether	59	3.081	3.076	0.005	89	262150	100.0	106.3	
21 Acrolein	56	3.264	3.252	0.012	99	130923	200.0	210.7	
22 1,1-Dichloroethene	96	3.373	3.368	0.005	98	247279	100.0	97.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.446	3.441	0.005	93	263603	100.0	94.3	
24 Acetone	43	3.476	3.477	-0.001	100	316026	200.0	232.3	
25 Iodomethane	142	3.562	3.562	0.000	98	408622	100.0	102.2	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	561008	100.0	100.4	
28 3-Chloro-1-propene	76	3.951	3.946	0.005	92	164305	100.0	99.8	
30 Methyl acetate	43	3.969	3.976	-0.007	97	558912	200.0	207.5	
31 Methylene Chloride	84	4.164	4.165	-0.001	93	323324	100.0	106.0	
32 2-Methyl-2-propanol	59	4.444	4.451	-0.007	94	283777	1000.0	951.5	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	1387354	1000.0	1059.2	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	98	296608	100.0	102.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	822838	100.0	105.8	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	4.998	0.005	92	337300	100.0	90.6	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	510811	100.0	101.2	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	532250	100.0	103.7	
44 2,2-Dichloropropane	97	5.959	5.959	-0.001	57	65750	100.0	102.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	347303	100.0	104.6	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	426755	200.0	220.4	
49 Chlorobromomethane	128	6.251	6.245	0.005	94	155416	100.0	105.4	
51 Tetrahydrofuran	42	6.263	6.263	0.000	86	224432	200.0	199.0	
52 Chloroform	83	6.390	6.391	-0.001	92	517765	100.0	102.8	
53 1,1,1-Trichloroethane	97	6.555	6.549	0.006	98	383868	100.0	100.7	
54 Cyclohexane	56	6.622	6.622	0.000	89	446560	100.0	94.9	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	96	317033	100.0	99.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	98	408627	100.0	99.2	
58 Benzene	78	6.956	6.951	0.005	97	1307056	100.0	103.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	91	290317	2500.0	2804.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	385206	100.0	104.5	
62 n-Heptane	43	7.315	7.316	-0.001	89	279216	100.0	93.8	
64 Trichloroethene	130	7.686	7.687	-0.001	98	329499	100.0	103.5	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	467268	100.0	97.1	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	96	309491	100.0	105.1	
68 Dibromomethane	93	8.051	8.046	0.005	96	184529	100.0	106.9	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	65688	2000.0	2193.3	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	99	366097	100.0	108.1	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	467677	200.0	220.7	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	447138	100.0	108.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.842	8.843	-0.001	95	738839	200.0	217.2	
76 Toluene	91	9.018	9.019	-0.001	99	1332783	100.0	100.8	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	92	396221	100.0	110.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	483364	100.0	111.4	
79 1,1,2-Trichloroethane	97	9.456	9.457	-0.001	90	283688	100.0	103.0	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	244346	100.0	96.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	89	518120	100.0	101.7	
82 2-Hexanone	43	9.676	9.682	-0.006	94	581383	200.0	222.8	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	254603	100.0	109.3	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	294438	100.0	104.2	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	94	461082	100.0	101.2	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	877804	100.0	102.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	420704	100.0	100.0	
90 Ethylbenzene	106	10.533	10.534	-0.001	98	499116	100.0	103.8	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	92	289044	100.0	105.6	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	610286	100.0	103.9	
92 o-Xylene	106	11.050	11.051	-0.001	95	592117	100.0	105.8	
93 Styrene	104	11.075	11.069	0.006	94	1002147	100.0	105.8	
94 Bromoform	173	11.251	11.252	-0.001	97	157509	100.0	108.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	97	454842	100.0	104.3	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	1415676	100.0	103.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	412534	100.0	101.1	
100 Bromobenzene	156	11.738	11.739	-0.001	95	348475	100.0	104.5	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	82	104361	100.0	103.8	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	144469	100.0	105.0	
103 N-Propylbenzene	120	11.841	11.842	-0.001	98	387234	100.0	101.6	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	344800	100.0	104.7	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.994	0.005	96	381649	100.0	106.5	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	1140888	100.0	104.6	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	369832	100.0	104.0	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	931884	100.0	102.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	1156912	100.0	104.4	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	277157	100.0	99.8	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	1298722	100.0	102.1	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	97	613101	100.0	102.9	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	1086140	100.0	102.5	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	94	622850	100.0	101.8	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.828	-0.001	96	267418	100.0	103.4	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.870	-0.001	0	279514	100.0	100.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	97	885288	100.0	102.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	97	577962	100.0	101.8	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	85	68470	100.0	108.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	1151252	300.0	319.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	814032	200.0	218.5	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	266863	100.0	102.7	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	97	94134	100.0	99.0	
128 Naphthalene	128	15.102	15.103	-0.001	97	990398	100.0	111.9	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	97	247660	100.0	104.3	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	122498	100.0	108.5	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	96	115009	100.0	109.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	209.7	
S 134 1,2-Dichloroethene, Total	96				0		200.0	206.9	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 4.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 4.00	Units: uL
voaW2clev1stR_00013	Amount Added: 4.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 8.00	Units: uL
voaWVA1stRest_00017	Amount Added: 4.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 4.00	Units: uL
voaWKetmix1st_00004	Amount Added: 4.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D

Injection Date: 27-Jul-2017 02:26:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD20

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

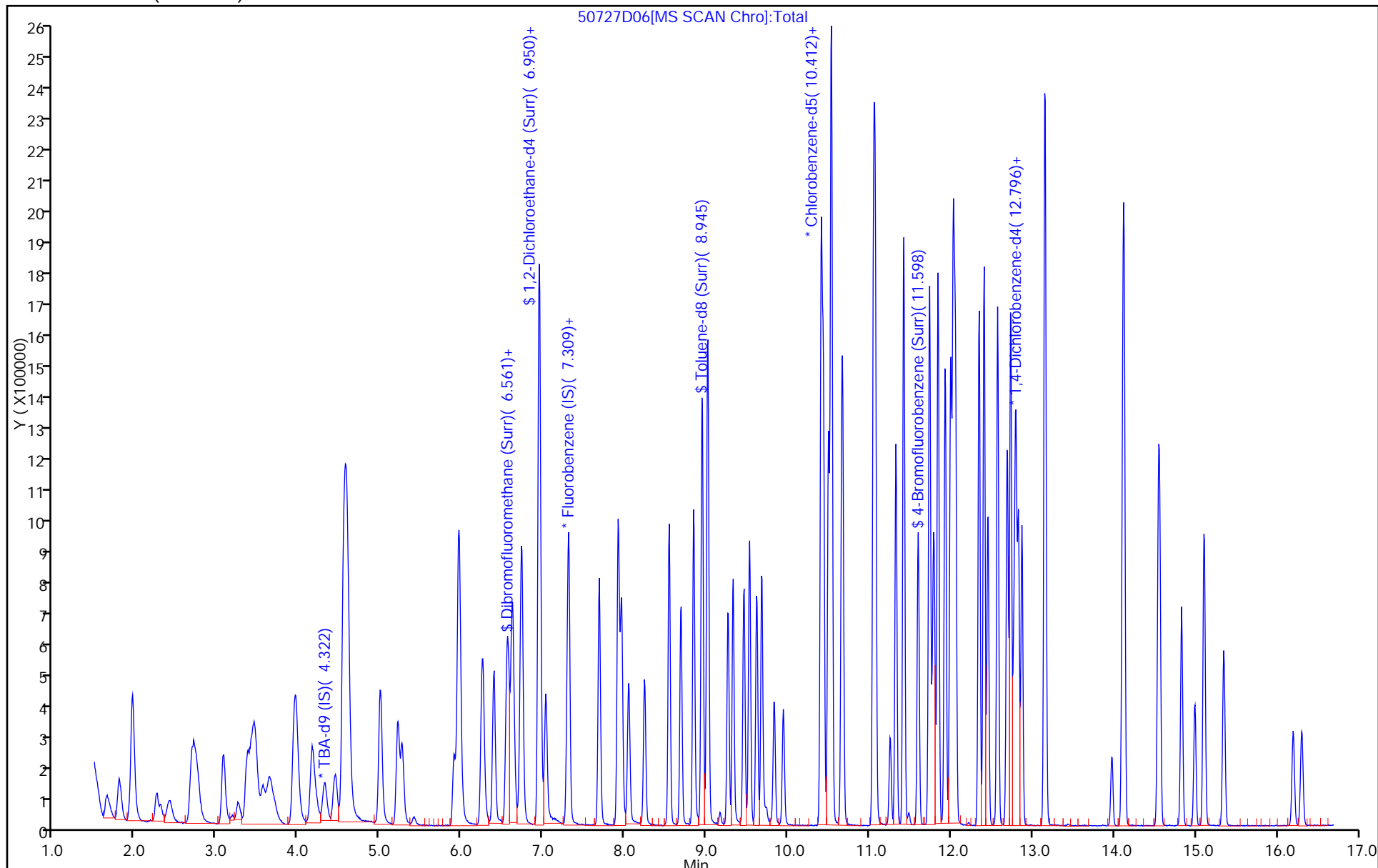
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 27-Jul-2017 03:13:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-008  
 Misc. Info.: IC VSTD40  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:05:02 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:34:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.337	4.323	0.013	0	252542	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	99	561296	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	56	150914	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.773	-0.005	90	189484	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.575	6.574	0.001	94	522323	200.0	193.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.946	6.945	0.001	0	628942	200.0	190.9	
\$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	2000995	200.0	166.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.594	11.599	-0.005	92	793129	200.0	182.8	
11 Dichlorodifluoromethane	85	1.654	1.646	0.008	99	569791	200.0	174.6	
12 Chloromethane	50	1.812	1.804	0.008	99	580608	200.0	177.0	
13 Vinyl chloride	62	1.958	1.944	0.014	97	577090	200.0	173.4	
14 Butadiene	39	1.970	1.969	0.002	94	512032	200.0	169.3	
15 Bromomethane	94	2.268	2.254	0.014	91	289712	200.0	184.1	
16 Chloroethane	64	2.426	2.419	0.007	99	322589	200.0	176.3	
17 Dichlorofluoromethane	67	2.706	2.699	0.007	97	819020	200.0	177.0	
18 Trichlorofluoromethane	101	2.761	2.741	0.020	97	710415	200.0	173.7	
20 Ethyl ether	59	3.077	3.076	0.001	88	510033	200.0	191.7	
21 Acrolein	56	3.260	3.252	0.008	100	179414	250.0	267.6	
22 1,1-Dichloroethene	96	3.369	3.368	0.001	96	489503	200.0	178.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.442	3.441	0.001	93	534815	200.0	177.3	
24 Acetone	43	3.485	3.477	0.008	100	522287	400.0	355.8	
25 Iodomethane	142	3.576	3.562	0.014	98	834240	200.0	193.3	
26 Carbon disulfide	76	3.649	3.648	0.001	99	1211678	200.0	200.9	
28 3-Chloro-1-propene	76	3.947	3.946	0.001	92	366340	200.0	206.3	
30 Methyl acetate	43	3.978	3.976	0.002	97	1173609	400.0	403.7	
31 Methylene Chloride	84	4.166	4.165	0.001	88	653341	200.0	201.5	
32 2-Methyl-2-propanol	59	4.464	4.451	0.013	93	519054	2000.0	1737.9	
33 Acrylonitrile	53	4.562	4.554	0.008	99	2794353	2000.0	1977.2	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	97	571864	200.0	182.6	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	95	1751345	200.0	208.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.000	4.998	0.002	92	708650	200.0	176.3	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	1041269	200.0	191.3	
38 Vinyl acetate	43	5.273	5.272	0.001	97	1200052	200.0	216.8	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	88	125406	200.0	180.9	
45 cis-1,2-Dichloroethene	96	5.967	5.965	0.002	80	687049	200.0	191.8	
46 2-Butanone (MEK)	43	5.979	5.978	0.001	98	795793	400.0	380.9	
49 Chlorobromomethane	128	6.247	6.245	0.002	94	313977	200.0	197.3	
51 Tetrahydrofuran	42	6.265	6.263	0.002	86	488432	400.0	401.4	
52 Chloroform	83	6.393	6.391	0.002	93	1037446	200.0	190.8	
53 1,1,1-Trichloroethane	97	6.551	6.549	0.002	98	777880	200.0	189.0	
54 Cyclohexane	56	6.618	6.622	-0.004	90	922281	200.0	181.6	
56 Carbon tetrachloride	117	6.721	6.726	-0.005	97	646700	200.0	188.8	
55 1,1-Dichloropropene	75	6.739	6.738	0.001	97	825970	200.0	185.8	
57 Isobutyl alcohol	41	6.946	6.945	0.001	51	587752	5000.0	5262.5	
58 Benzene	78	6.952	6.951	0.001	97	2487856	200.0	182.3	
59 1,2-Dichloroethane	62	7.031	7.030	0.001	97	767974	200.0	193.0	
62 n-Heptane	43	7.311	7.316	-0.005	87	573064	200.0	178.3	
64 Trichloroethene	130	7.682	7.687	-0.005	98	647404	200.0	188.5	
66 Methylcyclohexane	83	7.920	7.918	0.002	87	950167	200.0	183.0	
67 1,2-Dichloropropane	63	7.962	7.961	0.001	96	624637	200.0	196.5	
68 Dibromomethane	93	8.047	8.046	0.001	95	374289	200.0	201.0	
70 1,4-Dioxane	88	8.041	8.052	-0.011	39	135844	4000.0	4203.6	
71 Dichlorobromomethane	83	8.242	8.241	0.001	99	752352	200.0	205.8	
73 2-Chloroethyl vinyl ether	63	8.546	8.545	0.001	93	977190	400.0	427.3	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	933591	200.0	210.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.844	8.843	0.001	95	1476808	400.0	381.5	
76 Toluene	91	9.015	9.019	-0.004	98	2540251	200.0	168.8	
77 trans-1,3-Dichloropropene	75	9.264	9.269	-0.005	92	850338	200.0	207.7	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	1001550	200.0	202.8	
79 1,1,2-Trichloroethane	97	9.459	9.457	0.002	91	569083	200.0	181.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	486427	200.0	169.5	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	1058308	200.0	182.6	
82 2-Hexanone	43	9.678	9.682	-0.004	93	1109580	400.0	373.7	
84 Chlorodibromomethane	129	9.830	9.834	-0.004	89	540065	200.0	203.8	
85 Ethylene Dibromide	107	9.945	9.944	0.001	98	607203	200.0	188.9	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	93	869071	200.0	167.6	
87 Chlorobenzene	112	10.432	10.437	-0.005	93	1704167	200.0	174.0	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	96	810848	200.0	169.4	
89 1,1,1,2-Tetrachloroethane	131	10.529	10.528	0.001	94	590452	200.0	189.5	
90 Ethylbenzene	106	10.536	10.534	0.002	98	972676	200.0	177.9	
91 m-Xylene & p-Xylene	106	10.669	10.668	0.001	0	1217768	200.0	182.2	
92 o-Xylene	106	11.053	11.051	0.002	95	1159372	200.0	182.1	
93 Styrene	104	11.071	11.069	0.002	94	1967591	200.0	182.6	
94 Bromoform	173	11.253	11.252	0.001	96	350923	200.0	213.1	
96 2-Chlorobenzotrifluoride	180	11.326	11.325	0.001	96	875687	200.0	176.5	
97 Isopropylbenzene	105	11.418	11.422	-0.004	96	2665903	200.0	171.5	
100 Bromobenzene	156	11.734	11.739	-0.005	95	711710	200.0	193.5	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	93	870164	200.0	187.5	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	85	225821	200.0	203.6	
101 1,2,3-Trichloropropane	110	11.795	11.793	0.002	85	299299	200.0	197.2	
103 N-Propylbenzene	120	11.844	11.842	0.002	97	774184	200.0	184.2	
104 2-Chlorotoluene	126	11.929	11.927	0.002	97	700158	200.0	192.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	742625	200.0	187.9	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	94	2188229	200.0	182.0	
107 4-Chlorotoluene	126	12.056	12.055	0.001	95	738280	200.0	188.2	
108 tert-Butylbenzene	119	12.342	12.347	-0.005	93	1809964	200.0	180.0	
110 1,2,4-Trimethylbenzene	105	12.403	12.408	-0.005	97	2260604	200.0	184.9	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	97	542681	200.0	177.2	
112 sec-Butylbenzene	105	12.574	12.572	0.002	95	2474312	200.0	176.4	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	1215884	200.0	185.0	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	96	2107989	200.0	180.4	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	1249173	200.0	185.1	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.828	0.001	95	497225	200.0	174.4	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	580659	200.0	188.5	
120 n-Butylbenzene	91	13.151	13.150	0.001	96	1729209	200.0	181.5	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	97	1161072	200.0	185.4	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	85	151695	200.0	218.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	2228710	600.0	561.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.551	14.555	-0.004	0	1589536	400.0	386.9	
126 1,2,4-Trichlorobenzene	180	14.830	14.829	0.001	94	552245	200.0	192.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	180140	200.0	171.8	
128 Naphthalene	128	15.104	15.103	0.001	97	2008065	200.0	205.7	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	96	497473	200.0	190.0	
131 2,4,5-Trichlorotoluene	159	16.199	16.198	0.001	0	253594	200.0	203.8	
130 2,3,6-Trichlorotoluene	159	16.303	16.307	-0.004	97	237299	200.0	205.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	374.5	
S 133 Xylenes, Total	106				0		400.0	364.3	
S 135 1,3-Dichloropropene, Total	1				0		400.0	418.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 8.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 8.00	Units: uL
voaW2clev1stR_00013	Amount Added: 8.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 10.00	Units: uL
voaWVA1stRest_00017	Amount Added: 8.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 8.00	Units: uL
voaWKetmix1st_00004	Amount Added: 8.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D

Injection Date: 27-Jul-2017 03:13:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD40

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

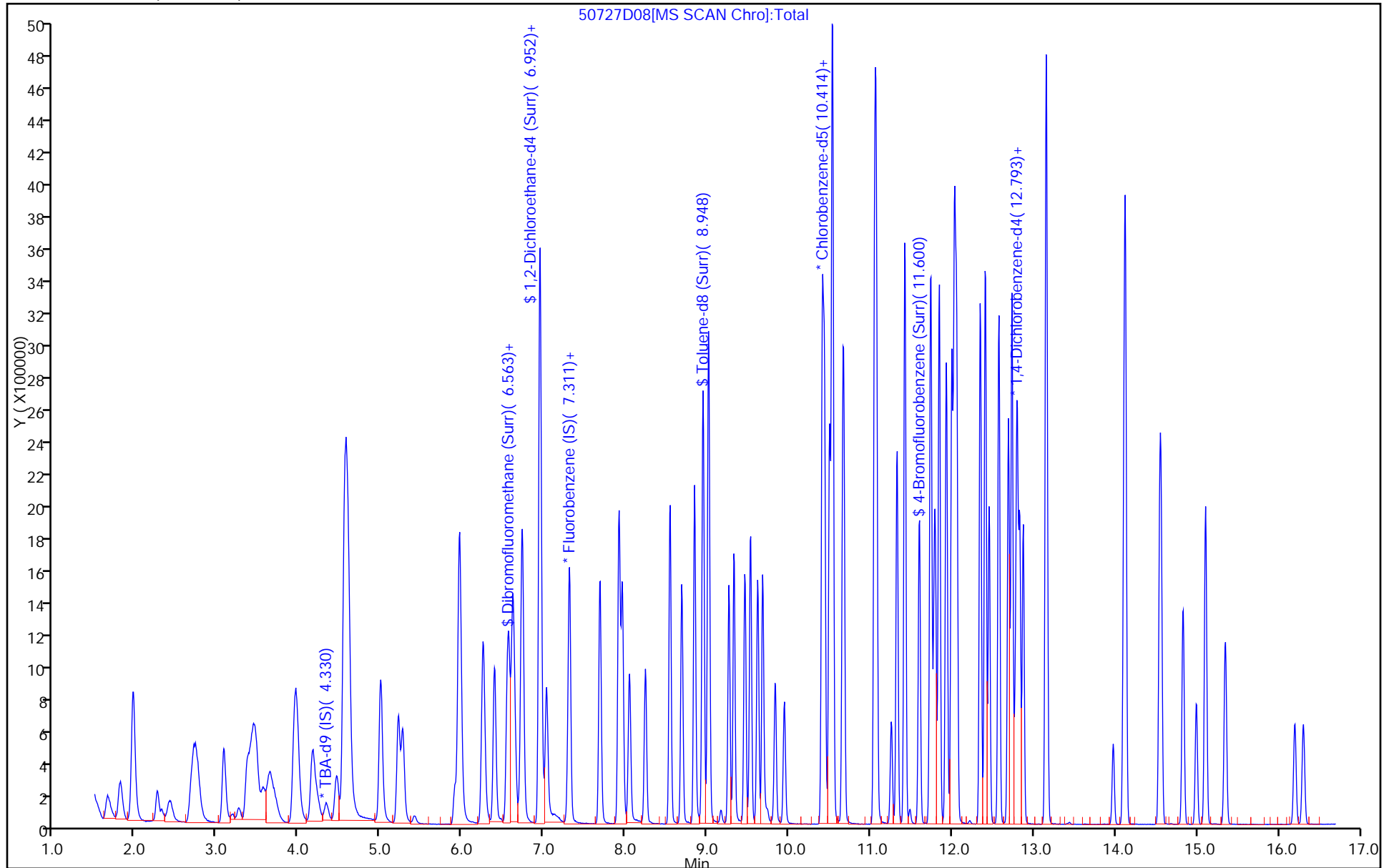
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 27-Jul-2017 04:00:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-010  
 Misc. Info.: IC VSTD35  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:05:06 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 04:42:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.323	0.005	0	232894	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.296	7.298	-0.002	94	610088	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.406	-0.001	86	155120	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.773	-0.002	90	193547	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.572	6.574	-0.002	94	505019	175.0	172.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.943	6.945	-0.002	0	575099	175.0	160.6	
\$ 7 Toluene-d8 (Surr)	98	8.951	8.946	0.005	92	1992609	175.0	161.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.597	11.599	-0.002	87	748217	175.0	167.8	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	647803	175.0	182.6	
12 Chloromethane	50	1.809	1.804	0.005	99	595751	175.0	167.1	
13 Vinyl chloride	62	1.961	1.944	0.017	98	632153	175.0	174.7	
14 Butadiene	39	1.967	1.969	-0.001	93	579584	175.0	176.3	
15 Bromomethane	94	2.265	2.254	0.011	91	285707	175.0	167.0	
16 Chloroethane	64	2.417	2.419	-0.002	99	340168	175.0	171.1	
17 Dichlorofluoromethane	67	2.703	2.699	0.004	97	845136	175.0	168.0	
18 Trichlorofluoromethane	101	2.746	2.741	0.005	96	769762	175.0	173.1	
20 Ethyl ether	59	3.074	3.076	-0.002	88	475422	175.0	164.4	
21 Acrolein	56	3.269	3.252	0.017	99	154738	225.0	212.3	
22 1,1-Dichloroethene	96	3.372	3.368	0.004	96	540044	175.0	180.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.452	3.441	0.011	92	571742	175.0	174.4	
24 Acetone	43	3.482	3.477	0.005	99	447756	350.0	280.6	
25 Iodomethane	142	3.561	3.562	-0.001	96	811997	175.0	173.1	
26 Carbon disulfide	76	3.646	3.648	-0.002	99	1310811	175.0	200.0	
28 3-Chloro-1-propene	76	3.944	3.946	-0.002	93	365237	175.0	189.2	
30 Methyl acetate	43	3.975	3.976	-0.001	97	1009713	350.0	319.6	
31 Methylene Chloride	84	4.163	4.165	-0.002	89	602402	175.0	170.4	
32 2-Methyl-2-propanol	59	4.455	4.451	0.004	93	524619	1750.0	1904.7	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	2362587	1750.0	1538.0	
34 trans-1,2-Dichloroethene	96	4.577	4.584	-0.007	98	595572	175.0	175.0	
35 Methyl tert-butyl ether	73	4.601	4.603	-0.002	96	1597553	175.0	175.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.997	4.998	-0.001	91	760411	175.0	174.1	
37 1,1-Dichloroethane	63	5.216	5.217	-0.001	96	1024340	175.0	173.1	
38 Vinyl acetate	43	5.270	5.272	-0.002	97	1068205	175.0	177.5	
44 2,2-Dichloropropane	97	5.958	5.959	-0.001	91	136605	175.0	181.3	
45 cis-1,2-Dichloroethene	96	5.964	5.965	-0.001	79	671208	175.0	172.4	
46 2-Butanone (MEK)	43	5.982	5.978	0.004	100	686266	350.0	302.2	
49 Chlorobromomethane	128	6.250	6.245	0.005	95	291754	175.0	168.6	
51 Tetrahydrofuran	42	6.262	6.263	-0.001	87	396477	350.0	299.8	
52 Chloroform	83	6.396	6.391	0.005	92	989929	175.0	167.5	
53 1,1,1-Trichloroethane	97	6.554	6.549	0.005	98	811476	175.0	181.4	
54 Cyclohexane	56	6.621	6.622	-0.001	90	1012965	175.0	183.5	
56 Carbon tetrachloride	117	6.718	6.726	-0.008	97	682784	175.0	183.4	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	97	866715	175.0	179.4	
57 Isobutyl alcohol	41	6.950	6.945	0.005	91	452876	4375.0	3730.6	
58 Benzene	78	6.956	6.951	0.005	97	2459963	175.0	165.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	708898	175.0	163.9	
62 n-Heptane	43	7.315	7.316	-0.001	88	633483	175.0	181.4	
64 Trichloroethene	130	7.686	7.687	-0.001	98	648262	175.0	173.7	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	1041060	175.0	184.4	
67 1,2-Dichloropropane	63	7.959	7.961	-0.002	95	596512	175.0	172.7	
68 Dibromomethane	93	8.045	8.046	-0.001	96	342853	175.0	169.4	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	115916	3500.0	3300.1	
71 Dichlorobromomethane	83	8.239	8.241	-0.002	100	712434	175.0	179.3	
73 2-Chloroethyl vinyl ether	63	8.543	8.545	-0.002	92	864836	350.0	347.9	
74 cis-1,3-Dichloropropene	75	8.689	8.685	0.004	96	881560	175.0	182.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.841	8.843	-0.002	95	1265241	350.0	318.0	
76 Toluene	91	9.018	9.019	-0.001	98	2496911	175.0	161.4	
77 trans-1,3-Dichloropropene	75	9.267	9.269	-0.002	93	781619	175.0	185.7	
78 Ethyl methacrylate	69	9.328	9.330	-0.002	88	905216	175.0	178.4	
79 1,1,2-Trichloroethane	97	9.462	9.457	0.005	90	523017	175.0	162.3	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	498519	175.0	169.0	
81 1,3-Dichloropropane	76	9.620	9.615	0.005	89	969241	175.0	162.7	
82 2-Hexanone	43	9.681	9.682	-0.001	94	977068	350.0	320.2	
84 Chlorodibromomethane	129	9.833	9.834	-0.001	90	489506	175.0	179.7	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	550826	175.0	166.7	
86 3-Chlorobenzotrifluoride	180	10.411	10.412	-0.001	93	874266	175.0	164.0	
87 Chlorobenzene	112	10.435	10.437	-0.002	94	1645967	175.0	163.5	
88 4-Chlorobenzotrifluoride	180	10.496	10.498	-0.002	95	826850	175.0	168.1	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	93	554351	175.0	173.1	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	962208	175.0	171.2	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1197380	175.0	174.3	
92 o-Xylene	106	11.050	11.051	-0.001	95	1130677	175.0	172.8	
93 Styrene	104	11.068	11.069	-0.001	94	1866053	175.0	168.4	
94 Bromoform	173	11.257	11.252	0.005	97	310948	175.0	183.7	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	96	840920	175.0	164.9	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	2681266	175.0	167.8	
100 Bromobenzene	156	11.737	11.739	-0.002	95	659984	175.0	175.7	
99 1,1,2,2-Tetrachloroethane	83	11.737	11.745	-0.008	94	762601	175.0	159.9	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	86	199800	175.0	176.4	
101 1,2,3-Trichloropropane	110	11.792	11.793	-0.001	85	255265	175.0	164.7	
103 N-Propylbenzene	120	11.841	11.842	-0.001	97	786064	175.0	183.1	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	666236	175.0	179.6	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.993	11.994	-0.001	96	680717	175.0	168.7	
106 1,3,5-Trimethylbenzene	105	12.029	12.031	-0.002	94	2153457	175.0	175.3	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	95	719035	175.0	179.5	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	1844417	175.0	179.6	
110 1,2,4-Trimethylbenzene	105	12.406	12.408	-0.002	97	2182090	175.0	174.8	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.456	-0.001	97	525922	175.0	168.1	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	2514051	175.0	175.5	
113 1,3-Dichlorobenzene	146	12.692	12.688	0.004	96	1146674	175.0	170.8	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	2114911	175.0	177.2	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	95	1174377	175.0	170.4	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.828	-0.002	96	501975	175.0	172.4	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.870	0.005	0	541324	175.0	172.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	96	1748217	175.0	179.6	
121 1,2-Dichlorobenzene	146	13.161	13.156	0.005	97	1081541	175.0	169.1	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	86	125814	175.0	177.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	2069215	525.0	509.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	1443949	350.0	344.1	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	511830	175.0	174.8	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	98	182711	175.0	170.6	
128 Naphthalene	128	15.101	15.103	-0.002	97	1761559	175.0	176.7	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	96	453926	175.0	169.7	
131 2,4,5-Trichlorotoluene	159	16.196	16.198	-0.002	0	235417	175.0	185.2	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	97	211883	175.0	179.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	347.1	
S 134 1,2-Dichloroethene, Total	96				0		350.0	347.4	
S 135 1,3-Dichloropropene, Total	1				0		350.0	368.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 7.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 9.00	Units: uL
voaWVA1stRest_00017	Amount Added: 7.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 7.00	Units: uL
voaW2clev1stR_00013	Amount Added: 7.00	Units: uL
voaWKetmix1st_00004	Amount Added: 7.00	Units: uL
VOA8260SURR_00071	Amount Added: 7.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D

Injection Date: 27-Jul-2017 04:00:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD35

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

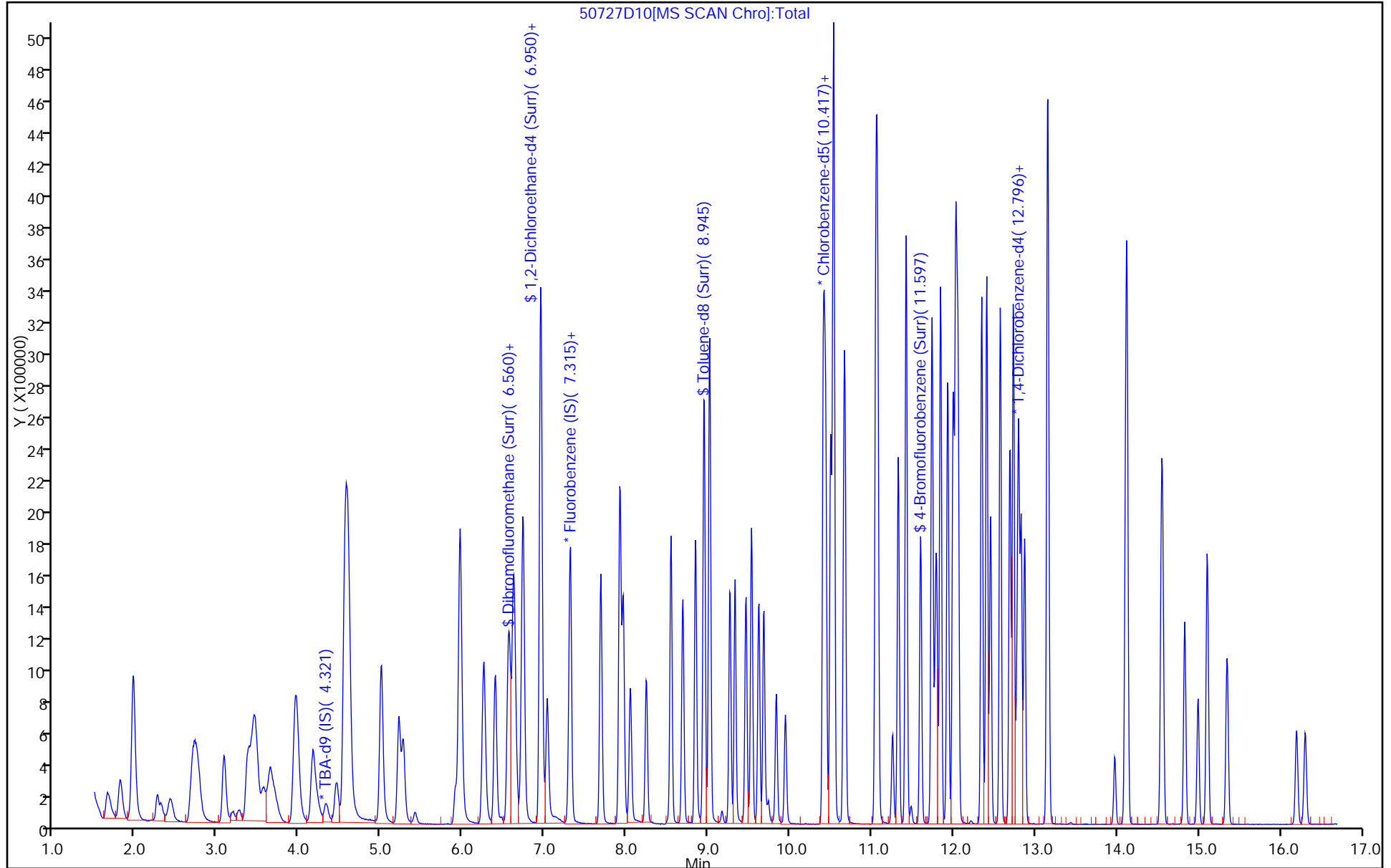
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 27-Jul-2017 04:24:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-011  
 Misc. Info.: IC VSTD50  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub12  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 05:09:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.341	4.323	0.018	0	184114	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	99	607808	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	161595	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	89	194624	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	94	681339	250.0	233.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	795993	250.0	223.2	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	2678162	250.0	208.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	1033645	250.0	222.5	
11 Dichlorodifluoromethane	85	1.652	1.646	0.006	99	857078	250.0	242.5	
12 Chloromethane	50	1.804	1.804	0.000	99	811941	250.0	228.6	
13 Vinyl chloride	62	1.956	1.944	0.012	98	867536	250.0	240.7	
14 Butadiene	39	1.968	1.969	0.000	94	815610	250.0	249.1	
15 Bromomethane	94	2.266	2.254	0.012	90	377950	250.0	221.8	
16 Chloroethane	64	2.406	2.419	-0.013	99	414342	250.0	209.1	
17 Dichlorofluoromethane	67	2.698	2.699	-0.001	97	1057272	250.0	211.0	
18 Trichlorofluoromethane	101	2.728	2.741	-0.013	97	1017488	250.0	229.7	
20 Ethyl ether	59	3.069	3.076	-0.007	88	612640	250.0	212.6	
21 Acrolein	56	3.264	3.252	0.012	98	183852	275.0	253.2	
22 1,1-Dichloroethene	96	3.367	3.368	-0.001	97	745282	250.0	250.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.441	-0.013	92	774058	250.0	237.0	
24 Acetone	43	3.483	3.477	0.006	100	630881	500.0	396.9	
25 Iodomethane	142	3.580	3.562	0.018	97	1099819	250.0	235.3	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	1856339	250.0	284.2	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	93	500032	250.0	260.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	1447736	500.0	459.9	
31 Methylene Chloride	84	4.164	4.165	-0.001	88	813282	250.0	232.1	
32 2-Methyl-2-propanol	59	4.468	4.451	0.017	94	568135	2500.0	2609.2	
33 Acrylonitrile	53	4.553	4.554	-0.001	98	3495451	2500.0	2284.0	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	98	806194	250.0	237.8	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	96	2170401	250.0	238.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.998	-0.007	92	1101558	250.0	253.1	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	1376176	250.0	233.4	
38 Vinyl acetate	43	5.271	5.272	-0.001	97	1523056	250.0	254.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	91	188250	250.0	250.8	
45 cis-1,2-Dichloroethene	96	5.959	5.965	-0.006	79	900432	250.0	232.2	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	962704	500.0	425.5	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	394763	250.0	229.0	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	609910	500.0	462.9	
52 Chloroform	83	6.391	6.391	0.000	92	1319564	250.0	224.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	1097196	250.0	246.2	
54 Cyclohexane	56	6.616	6.622	-0.006	90	1394833	250.0	253.7	
56 Carbon tetrachloride	117	6.719	6.726	-0.007	97	923177	250.0	248.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	96	1178056	250.0	244.7	
57 Isobutyl alcohol	41	6.950	6.945	0.005	68	715201	6250.0	5913.6	
58 Benzene	78	6.950	6.951	-0.001	97	3249284	250.0	219.9	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	969148	250.0	225.0	
62 n-Heptane	43	7.309	7.316	-0.007	89	922592	250.0	265.1	
64 Trichloroethene	130	7.686	7.687	-0.001	98	887332	250.0	238.6	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	1432791	250.0	254.8	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	95	793667	250.0	230.6	
68 Dibromomethane	93	8.045	8.046	-0.001	97	470836	250.0	233.5	
70 1,4-Dioxane	88	8.039	8.052	-0.013	38	187034	5000.0	5344.8	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	945026	250.0	238.8	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	1234429	500.0	498.5	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	1203144	250.0	250.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.842	8.843	-0.001	94	1863520	500.0	449.6	
76 Toluene	91	9.019	9.019	0.000	97	3254284	250.0	202.0	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	93	1070347	250.0	244.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	88	1271580	250.0	240.5	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	718069	250.0	213.9	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	683462	250.0	222.4	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	89	1320887	250.0	212.9	
82 2-Hexanone	43	9.676	9.682	-0.006	93	1418811	500.0	446.3	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	672369	250.0	237.0	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	773664	250.0	224.7	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	1290067	250.0	232.3	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	2170926	250.0	207.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	1226371	250.0	239.3	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	94	751692	250.0	225.4	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	1304914	250.0	222.8	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1614353	250.0	225.6	
92 o-Xylene	106	11.051	11.051	0.000	95	1518391	250.0	222.7	
93 Styrene	104	11.069	11.069	0.000	94	2462559	250.0	213.4	
94 Bromoform	173	11.257	11.252	0.005	98	443094	250.0	251.3	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	95	1244752	250.0	234.2	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	3502176	250.0	210.4	
100 Bromobenzene	156	11.738	11.739	-0.001	95	889999	250.0	235.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	1078742	250.0	217.1	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	84	299994	250.0	263.4	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	84	371250	250.0	238.1	
103 N-Propylbenzene	120	11.841	11.842	-0.001	96	1069171	250.0	247.7	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	907016	250.0	243.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	1010916	250.0	249.1	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	95	2828999	250.0	229.0	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	970169	250.0	240.8	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	92	2446270	250.0	236.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	2860516	250.0	227.8	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	96	801099	250.0	254.7	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	95	3330508	250.0	231.2	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	96	1545747	250.0	229.0	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	95	2809716	250.0	234.1	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	1574222	250.0	227.2	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.828	-0.001	94	771761	250.0	263.5	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	797256	250.0	252.0	
120 n-Butylbenzene	91	13.149	13.150	-0.001	95	2372703	250.0	242.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	96	1435184	250.0	223.1	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	86	182290	250.0	255.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	3049908	750.0	747.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	2191624	500.0	519.4	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	755690	250.0	256.7	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	282046	250.0	261.8	
128 Naphthalene	128	15.102	15.103	-0.001	98	2561966	250.0	255.5	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	693791	250.0	258.0	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	452516	250.0	354.0	
130 2,3,6-Trichlorotoluene	159	16.301	16.307	-0.006	98	417201	250.0	350.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		500.0	470.0	
S 133 Xylenes, Total	106				0		500.0	448.3	
S 135 1,3-Dichloropropene, Total	1				0		500.0	494.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOAPRI_00263	Amount Added: 10.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 11.00	Units: uL
voaWVA1stRest_00017	Amount Added: 10.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 10.00	Units: uL
voaW2clev1stR_00013	Amount Added: 10.00	Units: uL
voaWKetmix1st_00004	Amount Added: 10.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 10.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Injection Date: 27-Jul-2017 04:24:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD50

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

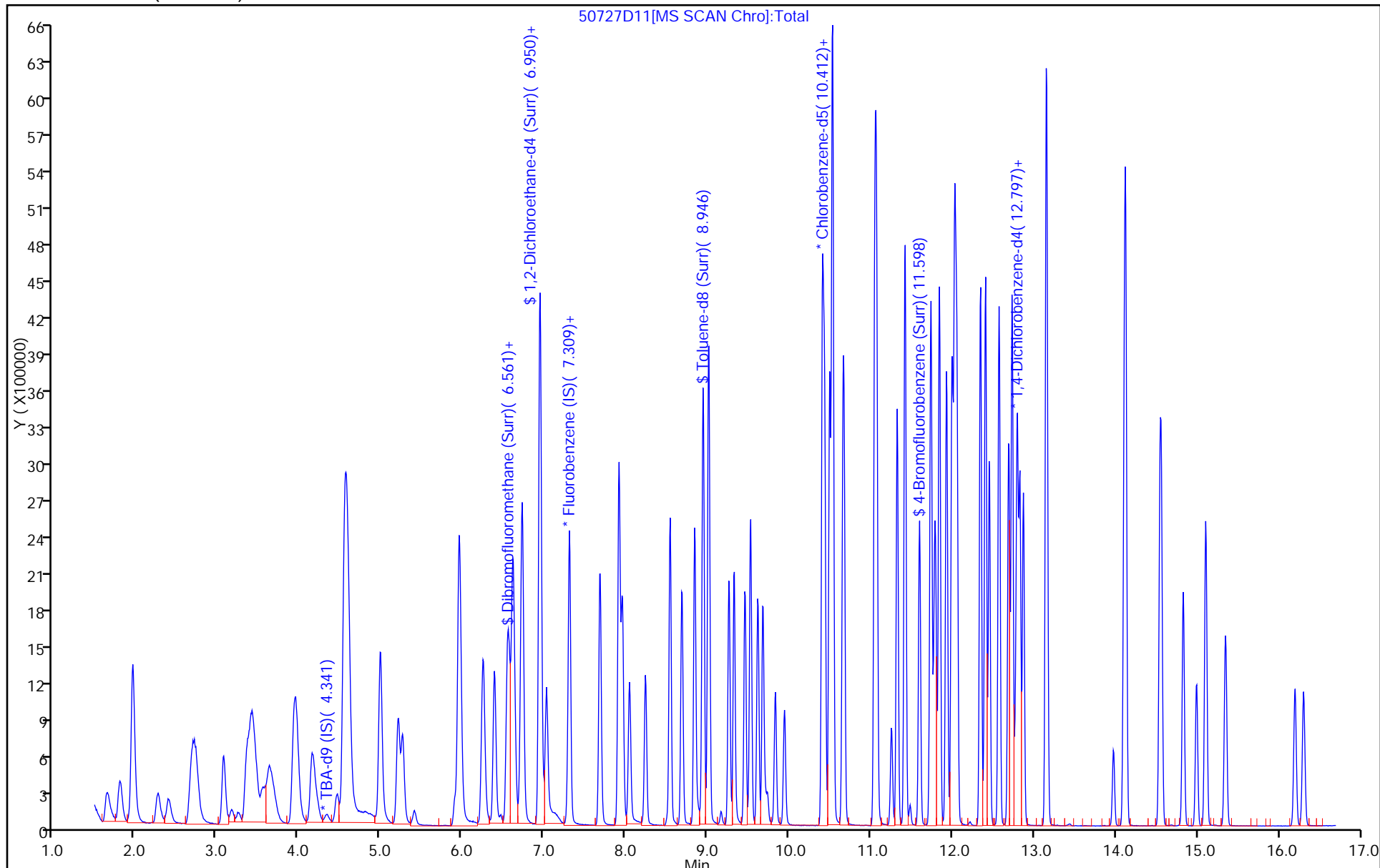
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-213537/11 Calibration Date: 06/08/2017 09:46  
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 06:03  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 08:59  
 Lab File ID: 50608D11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2709	0.2212	0.1000	8.17	10.0	-18.3	30.0
Chloromethane	Ave	0.4329	0.4242	0.1000	9.80	10.0	-2.0	30.0
Vinyl chloride	Ave	0.3458	0.3107	0.1000	8.98	10.0	-10.2	30.0
1,3-Butadiene	Lin2		0.2864	0.0100	7.84	10.0	-21.6	30.0
Bromomethane	Lin2		0.1898	0.0500	9.81	10.0	-1.9	30.0
Chloroethane	Lin2		0.2063	0.0500	10.1	10.0	0.9	30.0
Trichlorofluoromethane	Ave	0.3410	0.2583	0.1000	7.58	10.0	-24.2	30.0
Ethyl ether	Ave	0.3279	0.3346	0.0100	10.2	10.0	2.0	30.0
Acrolein	Ave	0.1045	0.1124	0.0100	32.3	30.0	7.6	30.0
1,1-Dichloroethene	Ave	0.2926	0.2910	0.1000	9.95	10.0	-0.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2418	0.1802	0.1000	7.45	10.0	-25.5	30.0
Acetone	Qua		0.2822	0.0500	23.1	20.0	15.6	30.0
Iodomethane	Ave	0.4333	0.4908	0.0100	11.3	10.0	13.3	30.0
Carbon disulfide	Ave	0.8088	0.7954	0.1000	9.83	10.0	-1.7	30.0
Allyl chloride	Ave	0.2430	0.2306	0.0100	9.49	10.0	-5.1	30.0
Methyl acetate	Ave	0.3801	0.4336	0.1000	22.8	20.0	14.1	30.0
Methylene Chloride	Ave	0.3492	0.4002	0.1000	11.5	10.0	14.6	30.0
tert-Butyl alcohol	Ave	1.248	1.168	0.0100	93.6	100	-6.4	30.0
Acrylonitrile	Ave	0.1755	0.1934	0.0100	110	100	10.2	30.0
trans-1,2-Dichloroethene	Ave	0.3447	0.3329	0.1000	9.66	10.0	-3.4	30.0
Methyl tert-butyl ether	Ave	1.034	1.115	0.1000	10.8	10.0	7.7	30.0
Hexane	Ave	0.6057	0.5487	0.0100	9.06	10.0	-9.4	30.0
1,1-Dichloroethane	Ave	0.6514	0.6617	0.2000	10.2	10.0	1.6	30.0
Vinyl acetate	Ave	0.9505	0.9087	0.0100	9.56	10.0	-4.4	30.0
2,2-Dichloropropane	Ave	0.0872	0.0821	0.0100	9.42	10.0	-5.8	30.0
cis-1,2-Dichloroethene	Ave	0.3837	0.3912	0.1000	10.2	10.0	1.9	30.0
2-Butanone (MEK)	Ave	0.3258	0.3792	0.0500	23.3	20.0	16.4	30.0
Chlorobromomethane	Ave	0.1693	0.1639	0.0100	9.68	10.0	-3.2	30.0
Tetrahydrofuran	Lin2		0.1733	0.0100	20.5	20.0	2.5	30.0
Chloroform	Ave	0.5777	0.5936	0.2000	10.3	10.0	2.8	30.0
1,1,1-Trichloroethane	Ave	0.4683	0.4474	0.1000	9.55	10.0	-4.5	30.0
Cyclohexane	Ave	0.6972	0.6494	0.1000	9.31	10.0	-6.9	30.0
Carbon tetrachloride	Ave	0.4116	0.3644	0.1000	8.85	10.0	-11.5	30.0
1,1-Dichloropropene	Ave	0.4922	0.4596	0.0100	9.34	10.0	-6.6	30.0
Isobutyl alcohol	Ave	0.0173	0.0182	0.0100	262	250	4.8	30.0
Benzene	Ave	1.438	1.460	0.5000	10.2	10.0	1.5	30.0
1,2-Dichloroethane	Ave	0.4731	0.4868	0.1000	10.3	10.0	2.9	30.0
n-Heptane	Ave	0.5522	0.5057	0.0100	9.16	10.0	-8.4	30.0
Trichloroethene	Ave	0.3520	0.3483	0.2000	9.90	10.0	-1.0	30.0
Methylcyclohexane	Ave	0.5987	0.5521	0.1000	9.22	10.0	-7.8	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-213537/11 Calibration Date: 06/08/2017 09:46  
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 06:03  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 08:59  
 Lab File ID: 50608D11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3997	0.4024	0.1000	10.1	10.0	0.7	30.0
1,4-Dioxane	Ave	0.0037	0.0042*	0.0100	223	200	11.6	30.0
Dibromomethane	Ave	0.2063	0.2099	0.0100	10.2	10.0	1.8	30.0
Dichlorobromomethane	Ave	0.4374	0.4319	0.2000	9.87	10.0	-1.3	30.0
2-Chloroethyl vinyl ether	Ave	0.2689	0.2934	0.0100	21.8	20.0	9.1	30.0
cis-1,3-Dichloropropene	Ave	0.5847	0.5864	0.2000	10.0	10.0	0.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	2.177	2.496	0.1000	22.9	20.0	14.6	30.0
Toluene	Ave	5.829	6.150	0.4000	10.6	10.0	5.5	30.0
trans-1,3-Dichloropropene	Ave	1.975	2.069	0.1000	10.5	10.0	4.8	30.0
Ethyl methacrylate	Ave	2.098	2.314	0.0100	11.0	10.0	10.3	30.0
1,1,2-Trichloroethane	Ave	1.178	1.263	0.1000	10.7	10.0	7.2	30.0
Tetrachloroethene	Ave	1.115	1.094	0.2000	9.81	10.0	-1.9	30.0
1,3-Dichloropropane	Ave	2.076	2.315	0.0100	11.2	10.0	11.5	30.0
2-Hexanone	Ave	1.728	2.120	0.1000	24.5	20.0	22.6	30.0
Chlorodibromomethane	Ave	1.141	1.155	0.1000	10.1	10.0	1.2	30.0
1,2-Dibromoethane	Ave	1.167	1.252	0.1000	10.7	10.0	7.3	30.0
3-Chlorobenzotrifluoride	Ave	1.994	1.877	0.0100	9.41	10.0	-5.9	30.0
Chlorobenzene	Ave	3.706	3.948	0.5000	10.7	10.0	6.5	30.0
4-Chlorobenzotrifluoride	Ave	1.906	1.758	0.0100	9.22	10.0	-7.8	30.0
1,1,1,2-Tetrachloroethane	Ave	1.260	1.282	0.0100	10.2	10.0	1.7	30.0
Ethylbenzene	Ave	2.045	2.090	0.1000	10.2	10.0	2.2	30.0
m-Xylene & p-Xylene	Ave	2.507	2.631	0.1000	10.5	10.0	4.9	30.0
o-Xylene	Ave	2.466	2.582	0.3000	10.5	10.0	4.7	30.0
Styrene	Ave	4.196	4.497	0.3000	10.7	10.0	7.2	30.0
Bromoform	Ave	0.8110	0.8064	0.1000	9.94	10.0	-0.6	30.0
2-Chlorobenzotrifluoride	Ave	1.996	1.943	0.0100	9.73	10.0	-2.7	30.0
Isopropylbenzene	Ave	6.049	6.313	0.1000	10.4	10.0	4.4	30.0
1,1,2,2-Tetrachloroethane	Ave	1.604	1.725	0.3000	10.8	10.0	7.6	30.0
Bromobenzene	Ave	1.047	1.078	0.0100	10.3	10.0	3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.4146	0.3816	0.0100	9.20	10.0	-8.0	30.0
1,2,3-Trichloropropane	Lin2		0.3835	0.0100	10.7	10.0	6.6	30.0
N-Propylbenzene	Ave	1.225	1.144	0.0100	9.34	10.0	-6.6	30.0
2-Chlorotoluene	Ave	1.034	1.003	0.0100	9.70	10.0	-3.0	30.0
3-Chlorotoluene	Ave	1.113	1.082	0.0100	9.72	10.0	-2.8	30.0
1,3,5-Trimethylbenzene	Ave	3.512	3.426	0.0100	9.76	10.0	-2.4	30.0
4-Chlorotoluene	Ave	1.076	1.058	0.0100	9.83	10.0	-1.7	30.0
tert-Butylbenzene	Ave	3.044	2.889	0.0100	9.49	10.0	-5.1	30.0
1,2,4-Trimethylbenzene	Ave	3.558	3.603	0.0100	10.1	10.0	1.3	30.0
3,4-Dichlorobenzotrifluoride	Ave	1.065	0.9625	0.0100	9.03	10.0	-9.7	30.0
sec-Butylbenzene	Ave	4.140	4.014	0.0100	9.69	10.0	-3.1	30.0
1,3-Dichlorobenzene	Ave	1.938	1.961	0.6000	10.1	10.0	1.2	30.0



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-213537/11 Calibration Date: 06/08/2017 09:46  
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 06:03  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 08:59  
 Lab File ID: 50608D11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.564	3.467	0.0100	9.73	10.0	-2.7	30.0
1,4-Dichlorobenzene	Ave	1.994	2.008	0.5000	10.1	10.0	0.7	30.0
2,4-Dichlorobenzotrifluoride	Ave	0.996	0.9184	0.0100	9.22	10.0	-7.8	30.0
2,5-Dichlorobenzotrifluoride	Ave	1.110	1.035	0.0100	9.32	10.0	-6.8	30.0
n-Butylbenzene	Ave	3.055	3.016	0.0100	9.87	10.0	-1.3	30.0
1,2-Dichlorobenzene	Ave	1.821	1.921	0.4000	10.6	10.0	5.5	30.0
1,2-Dibromo-3-Chloropropane	Lin2		0.2416	0.0500	9.57	10.0	-4.3	30.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.326	1.353	0.0100	30.6	30.0	2.1	30.0
2,3- & 3,4- Dichlorotoluene	Ave	1.398	1.428	0.0100	20.4	20.0	2.2	30.0
1,2,4-Trichlorobenzene	Ave	1.035	1.031	0.2000	9.96	10.0	-0.4	30.0
Hexachlorobutadiene	Ave	0.4576	0.4515	0.0100	9.87	10.0	-1.3	30.0
Naphthalene	Ave	3.272	3.470	0.0100	10.6	10.0	6.1	30.0
1,2,3-Trichlorobenzene	Ave	0.9612	0.9818	0.0100	10.2	10.0	2.1	30.0
2,4,5-Trichlorotoluene	Ave	0.5946	0.5645	0.0100	9.49	10.0	-5.1	30.0
2,3,6-Trichlorotoluene	Ave	0.5418	0.5340	0.0100	9.86	10.0	-1.4	30.0
Dibromofluoromethane (Surr)	Ave	0.2557	0.2773		10.8	10.0	8.4	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3525	0.3815		10.8	10.0	8.2	30.0
Toluene-d8 (Surr)	Ave	4.001	4.410		11.0	10.0	10.2	30.0
4-Bromofluorobenzene (Surr)	Ave	1.588	1.812		11.4	10.0	14.1	30.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D11.D  
 Lims ID: ICV  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 08-Jun-2017 09:46:30 ALS Bottle#: 11 Worklist Smp#: 11  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-011  
 Misc. Info.: ICV  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist:

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 04:01:44 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf Date: 09-Jun-2017 03:32:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.343	4.344	-0.001	0	237564	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.337	-0.001	98	310218	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.434	-0.001	87	78824	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.776	-0.001	93	117362	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.613	-0.001	94	86011	50.0	54.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.978	0.005	0	118340	50.0	54.1	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.980	-0.001	93	347581	50.0	55.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.619	11.614	0.005	88	142792	50.0	57.0	
11 Dichlorodifluoromethane	85	1.624	1.619	0.005	98	68632	50.0	40.8	
12 Chloromethane	50	1.824	1.826	-0.002	99	131584	50.0	49.0	
13 Vinyl chloride	62	1.946	1.947	-0.001	97	96384	50.0	44.9	
14 Butadiene	39	1.989	1.972	0.017	96	88845	50.0	39.2	M
15 Bromomethane	94	2.299	2.318	-0.019	89	58874	50.0	49.0	
16 Chloroethane	64	2.439	2.446	-0.007	98	64001	50.0	50.5	
18 Trichlorofluoromethane	101	2.725	2.720	0.005	91	80136	50.0	37.9	
17 Dichlorofluoromethane	67	2.719	2.726	-0.007	93	158349	50.0	49.9	
20 Ethyl ether	59	3.114	3.109	0.005	96	103797	50.0	51.0	
21 Acrolein	56	3.297	3.304	-0.007	98	104612	150.0	161.4	
22 1,1-Dichloroethene	96	3.412	3.413	-0.001	97	90263	50.0	49.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.467	3.462	0.005	73	55911	50.0	37.3	
24 Acetone	43	3.510	3.511	-0.001	98	175066	100.0	115.6	
25 Iodomethane	142	3.607	3.602	0.005	97	152259	50.0	56.6	
26 Carbon disulfide	76	3.698	3.693	0.005	100	246740	50.0	49.2	
28 3-Chloro-1-propene	76	4.002	3.991	0.011	90	71537	50.0	47.5	
30 Methyl acetate	43	4.021	4.022	-0.001	99	269026	100.0	114.1	
31 Methylene Chloride	84	4.215	4.216	-0.001	98	124157	50.0	57.3	
32 2-Methyl-2-propanol	59	4.483	4.478	0.005	98	138688	500.0	467.9	
33 Acrylonitrile	53	4.592	4.594	-0.002	100	599932	500.0	551.1	
34 trans-1,2-Dichloroethene	96	4.629	4.630	-0.001	94	103266	50.0	48.3	
35 Methyl tert-butyl ether	73	4.647	4.648	-0.001	99	345758	50.0	53.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.043	5.044	-0.001	94	170220	50.0	45.3	
37 1,1-Dichloroethane	63	5.256	5.257	-0.001	96	205284	50.0	50.8	
38 Vinyl acetate	43	5.310	5.311	-0.001	97	281884	50.0	47.8	
44 2,2-Dichloropropane	97	5.998	5.999	-0.001	55	25482	50.0	47.1	
45 cis-1,2-Dichloroethene	96	6.004	6.005	-0.001	84	121346	50.0	51.0	
46 2-Butanone (MEK)	43	6.016	6.023	-0.007	99	235266	100.0	116.4	
49 Chlorobromomethane	128	6.284	6.279	0.005	92	50831	50.0	48.4	
51 Tetrahydrofuran	42	6.308	6.303	0.005	92	107528	100.0	102.5	
52 Chloroform	83	6.430	6.431	-0.001	95	184158	50.0	51.4	
53 1,1,1-Trichloroethane	97	6.588	6.589	-0.001	98	138783	50.0	47.8	
54 Cyclohexane	56	6.655	6.656	-0.001	95	201457	50.0	46.6	
56 Carbon tetrachloride	117	6.764	6.759	0.005	96	113055	50.0	44.3	
55 1,1-Dichloropropene	75	6.776	6.777	-0.001	93	142563	50.0	46.7	
57 Isobutyl alcohol	41	6.977	6.978	-0.001	91	140916	1250.0	1310.6	
58 Benzene	78	6.989	6.990	-0.001	97	452849	50.0	50.8	
59 1,2-Dichloroethane	62	7.068	7.069	-0.001	96	151004	50.0	51.4	
62 n-Heptane	43	7.354	7.349	0.005	96	156884	50.0	45.8	
64 Trichloroethene	130	7.719	7.720	-0.001	97	108052	50.0	49.5	
66 Methylcyclohexane	83	7.957	7.958	-0.001	93	171264	50.0	46.1	
67 1,2-Dichloropropane	63	7.993	7.994	-0.001	94	124831	50.0	50.3	
68 Dibromomethane	93	8.084	8.079	0.005	94	65128	50.0	50.9	
70 1,4-Dioxane	88	8.078	8.085	-0.007	41	25922	1000.0	1116.1	
71 Dichlorobromomethane	83	8.273	8.274	-0.001	98	133981	50.0	49.4	
73 2-Chloroethyl vinyl ether	63	8.577	8.578	-0.001	92	182013	100.0	109.1	
74 cis-1,3-Dichloropropene	75	8.723	8.718	0.005	92	181913	50.0	50.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.875	8.876	-0.001	98	393534	100.0	114.6	
76 Toluene	91	9.052	9.047	0.005	98	484800	50.0	52.8	
77 trans-1,3-Dichloropropene	75	9.295	9.296	-0.001	97	163082	50.0	52.4	
78 Ethyl methacrylate	69	9.356	9.357	-0.001	93	182430	50.0	55.1	
79 1,1,2-Trichloroethane	97	9.490	9.491	-0.001	92	99536	50.0	53.6	
80 Tetrachloroethene	164	9.563	9.564	-0.001	98	86230	50.0	49.1	
81 1,3-Dichloropropane	76	9.648	9.649	-0.001	96	182481	50.0	55.8	
82 2-Hexanone	43	9.709	9.710	-0.001	98	334173	100.0	122.6	
84 Chlorodibromomethane	129	9.861	9.862	-0.001	93	91074	50.0	50.6	
85 Ethylene Dibromide	107	9.976	9.977	-0.001	98	98714	50.0	53.7	
86 3-Chlorobenzotrifluoride	180	10.439	10.434	0.005	91	147956	50.0	47.1	
87 Chlorobenzene	112	10.463	10.464	-0.001	93	311176	50.0	53.3	
88 4-Chlorobenzotrifluoride	180	10.524	10.525	-0.001	95	138541	50.0	46.1	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.555	-0.001	93	101016	50.0	50.9	
90 Ethylbenzene	106	10.560	10.561	-0.001	99	164729	50.0	51.1	
91 m-Xylene & p-Xylene	106	10.694	10.695	-0.001	0	207361	50.0	52.5	
92 o-Xylene	106	11.071	11.072	-0.001	97	203529	50.0	52.4	
93 Styrene	104	11.096	11.097	-0.001	95	354465	50.0	53.6	
94 Bromoform	173	11.278	11.279	-0.001	97	63567	50.0	49.7	
96 2-Chlorobenzotrifluoride	180	11.345	11.346	-0.001	97	153117	50.0	48.6	
97 Isopropylbenzene	105	11.442	11.443	-0.001	97	497653	50.0	52.2	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.754	-0.001	78	135997	50.0	53.8	
100 Bromobenzene	156	11.753	11.754	-0.001	95	126511	50.0	51.5	
102 trans-1,4-Dichloro-2-buten	53	11.795	11.790	0.005	86	44782	50.0	46.0	
101 1,2,3-Trichloropropane	110	11.813	11.809	0.005	87	45013	50.0	53.3	
103 N-Propylbenzene	120	11.856	11.863	-0.007	99	134232	50.0	46.7	
104 2-Chlorotoluene	126	11.947	11.948	-0.001	96	117723	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.009	-0.001	98	127016	50.0	48.6	
106 1,3,5-Trimethylbenzene	105	12.039	12.040	-0.001	98	402035	50.0	48.8	
107 4-Chlorotoluene	126	12.069	12.070	-0.001	97	124170	50.0	49.1	
108 tert-Butylbenzene	119	12.355	12.356	-0.001	94	339022	50.0	47.4	
110 1,2,4-Trimethylbenzene	105	12.416	12.417	-0.001	97	422821	50.0	50.6	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.459	-0.001	98	112960	50.0	45.2	
112 sec-Butylbenzene	105	12.580	12.581	-0.001	94	471046	50.0	48.5	
113 1,3-Dichlorobenzene	146	12.696	12.697	-0.001	97	230113	50.0	50.6	
114 4-Isopropyltoluene	119	12.732	12.733	-0.001	96	406882	50.0	48.6	
115 1,4-Dichlorobenzene	146	12.799	12.800	-0.001	94	235608	50.0	50.3	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.831	-0.002	96	107783	50.0	46.1	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.873	-0.001	0	121461	50.0	46.6	
120 n-Butylbenzene	91	13.146	13.147	-0.001	98	353915	50.0	49.4	
121 1,2-Dichlorobenzene	146	13.158	13.159	-0.001	96	225488	50.0	52.8	
122 1,2-Dibromo-3-Chloropropan	75	13.943	13.956	-0.013	85	28350	50.0	47.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.095	14.090	0.005	0	476499	150.0	153.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.508	14.510	-0.002	0	335295	100.0	102.2	
126 1,2,4-Trichlorobenzene	180	14.770	14.771	-0.001	94	120991	50.0	49.8	
127 Hexachlorobutadiene	225	14.916	14.917	-0.001	94	52988	50.0	49.3	
128 Naphthalene	128	15.038	15.039	-0.001	98	407271	50.0	53.0	
129 1,2,3-Trichlorobenzene	180	15.269	15.270	-0.001	94	115227	50.0	51.1	
131 2,4,5-Trichlorotoluene	159	16.035	16.037	-0.002	0	66247	50.0	47.5	
130 2,3,6-Trichlorotoluene	159	16.133	16.134	-0.001	96	62669	50.0	49.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.3	
S 133 Xylenes, Total	106				0		100.0	104.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	102.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOAVA2ND_00007	Amount Added: 2.00	Units: uL
VOAACR2ND_00008	Amount Added: 6.00	Units: uL
voaW2cleve2nd_00009	Amount Added: 2.00	Units: uL
voaWee2ndRest_00013	Amount Added: 2.00	Units: uL
voaWKet2ndRes_00019	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 2.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260VOA2ND_00246	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D11.D

Injection Date: 08-Jun-2017 09:46:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICV

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

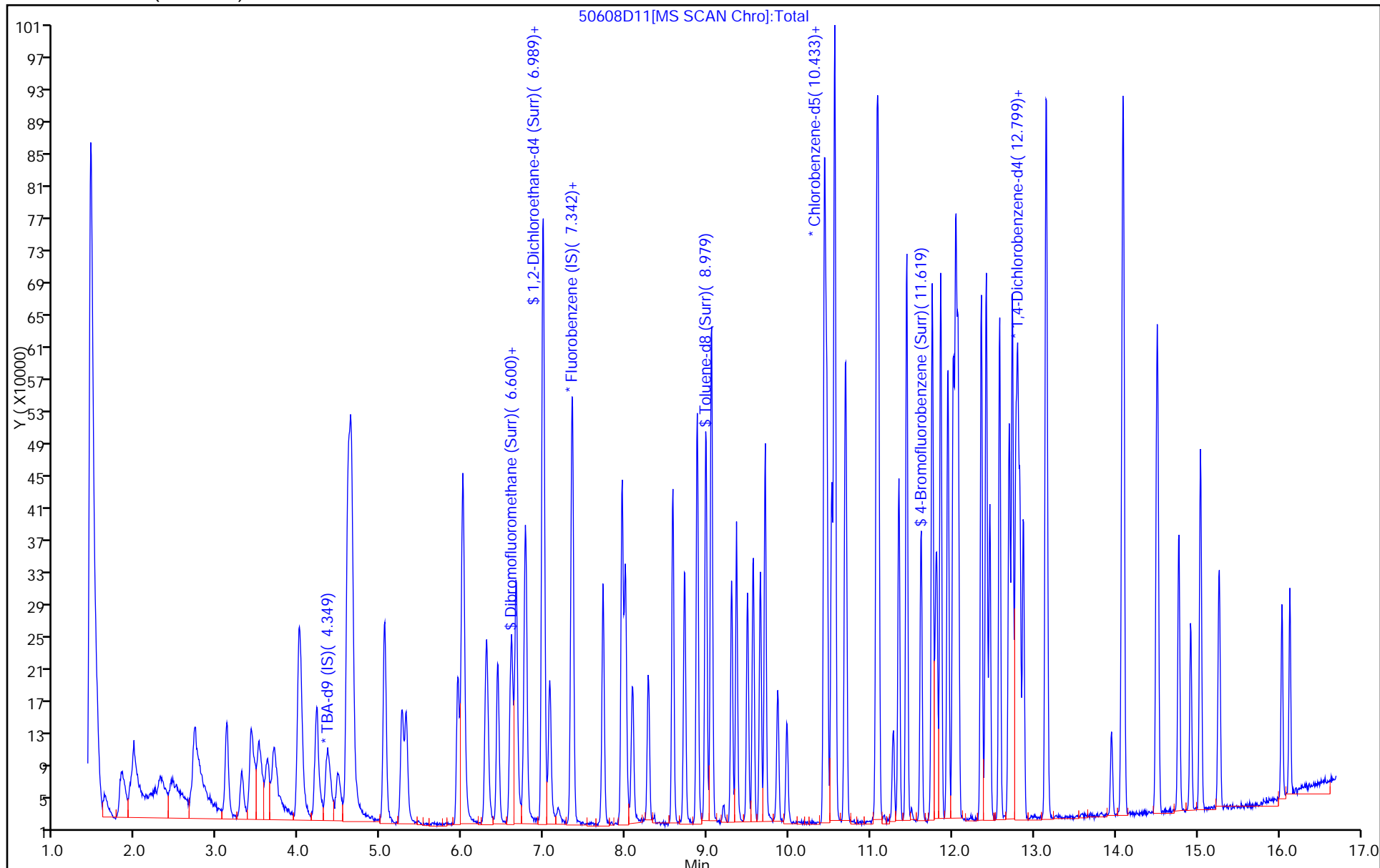
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

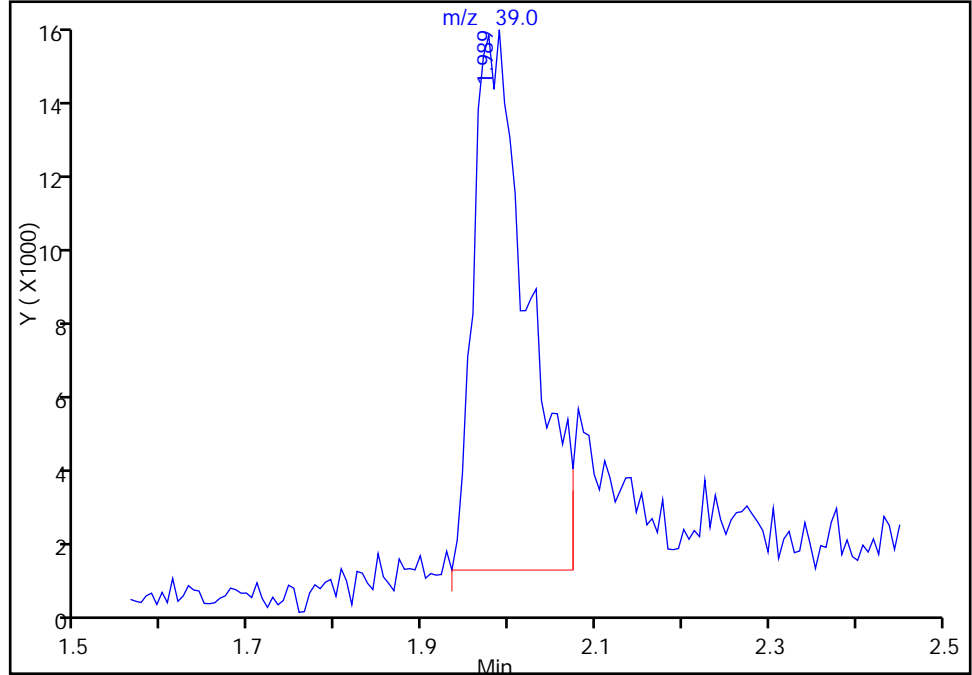
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Injection Date: 08-Jun-2017 09:46:30 Instrument ID: CHHP5  
Lims ID: ICV  
Client ID:  
Operator ID: 034635 ALS Bottle#: 11 Worklist Smp#: 11  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

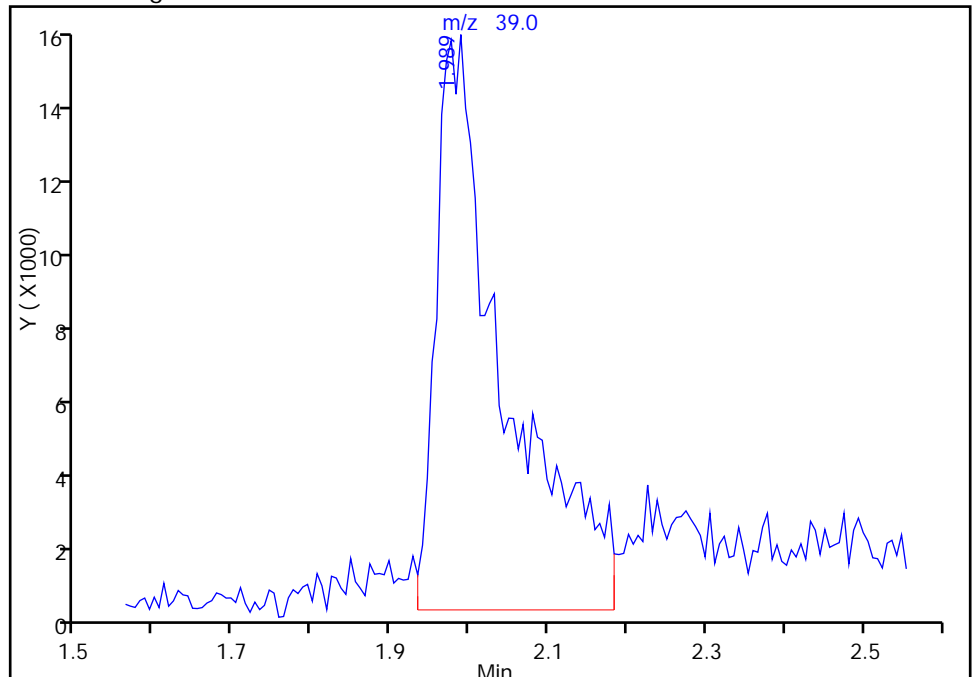
RT: 1.99  
Area: 60887  
Amount: 21.302853  
Amount Units: ng

Processing Integration Results



RT: 1.99  
Area: 88845  
Amount: 39.214845  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Jun-2017 03:32:29  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-213537/21 Calibration Date: 06/08/2017 13:42  
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 10:10  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 12:55  
 Lab File ID: 50608D21.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopropyl alcohol	Lin1		0.0182	0.0100	93.1	100	-6.9	30.0
Acetonitrile	Ave	0.0630	0.0652	0.0100	103	100	3.5	30.0
Isopropyl ether	Ave	1.397	1.405	0.0100	10.1	10.0	0.6	30.0
Chloroprene	Ave	0.5573	0.4808	0.0100	8.63	10.0	-13.7	30.0
Tert-butyl ethyl ether	Ave	1.197	1.166	0.0100	9.74	10.0	-2.6	30.0
Ethyl acetate	Ave	0.4851	0.4802	0.0100	19.8	20.0	-1.0	30.0
Propionitrile	Ave	0.0666	0.0723	0.0100	108	100	8.5	30.0
Methacrylonitrile	Ave	0.2860	0.2908	0.0100	102	100	1.7	30.0
Isooctane	Lin2		0.4595	0.0100	7.00	10.0	-30.0	30.0
Tert-amyl methyl ether	Ave	1.106	1.116	0.0100	10.1	10.0	0.9	30.0
n-Butanol	Ave	0.0121	0.0116	0.0100	239	250	-4.3	30.0
Ethyl acrylate	Ave	2.526	2.328	0.0100	9.21	10.0	-7.9	30.0
Methyl methacrylate	Ave	0.3011	0.2890	0.0100	19.2	20.0	-4.0	30.0
n-Butyl acetate	Ave	3.317	3.044	0.0100	9.17	10.0	-8.3	30.0
Cyclohexanone	Ave	0.1077	0.0632	0.0100	117	200	-41.3*	30.0
1,2,3-Trimethylbenzene	Ave	3.357	3.392	0.0100	10.1	10.0	1.1	30.0
Benzyl chloride	Ave	1.985	1.701	0.0100	8.57	10.0	-14.3	30.0
1,3,5-Trichlorobenzene	Ave	1.035	0.9910	0.0100	9.57	10.0	-4.3	30.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D21.D  
 Lims ID: ICV Appix  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 08-Jun-2017 13:42:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-021  
 Misc. Info.: ICV APPIX  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist:  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:52:30 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 09-Jun-2017 03:51:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.337	4.335	0.002	0	184072	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.335	0.001	98	340635	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.431	0.001	88	86815	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.780	12.779	0.001	97	123546	50.0	50.0	
27 Isopropyl alcohol	45	3.795	3.794	0.001	99	62058	500.0	465.5	M
29 Acetonitrile	41	3.953	3.952	0.001	100	221956	500.0	517.5	
41 Isopropyl ether	45	5.353	5.351	0.001	94	478581	50.0	50.3	
39 2-Chloro-1,3-butadiene	53	5.359	5.357	0.002	58	163779	50.0	43.1	
42 Tert-butyl ethyl ether	59	5.827	5.826	0.001	98	397307	50.0	48.7	
47 Propionitrile	54	6.089	6.087	0.002	67	246198	500.0	542.3	
48 Ethyl acetate	43	6.089	6.087	0.002	99	327175	100.0	99.0	
50 Methacrylonitrile	41	6.265	6.264	0.001	96	990717	500.0	508.5	
151 Isooctane	57	7.147	7.146	0.001	95	156520	50.0	35.0	
61 Tert-amyl methyl ether	73	7.165	7.170	-0.005	96	380135	50.0	50.5	
63 n-Butanol	56	7.682	7.681	0.001	92	98542	1250.0	1196.3	
65 Ethyl acrylate	55	7.847	7.840	0.007	99	202091	50.0	46.1	
69 Methyl methacrylate	69	8.078	8.077	0.001	96	196886	100.0	96.0	
83 n-Butyl acetate	43	9.830	9.829	0.001	98	264228	50.0	45.9	
98 Cyclohexanone	55	11.533	11.538	-0.005	95	109653	1000.0	586.5	
117 1,2,3-Trimethylbenzene	105	12.829	12.828	0.001	98	419120	50.0	50.5	
119 Benzyl chloride	91	12.914	12.913	0.001	99	210114	50.0	42.8	
124 1,3,5-Trichlorobenzene	180	14.137	14.136	0.001	96	122430	50.0	47.9	



## QC Flag Legend

### Review Flags

M - Manually Integrated

### Reagents:

voaWlist2 2nd\_00008

Amount Added: 2.00

Units: uL

VOA8260INT\_00070

Amount Added: 2.00

Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D21.D

Injection Date: 08-Jun-2017 13:42:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICV Appix

Worklist Smp#: 21

Client ID:

Purge Vol: 5.000 mL

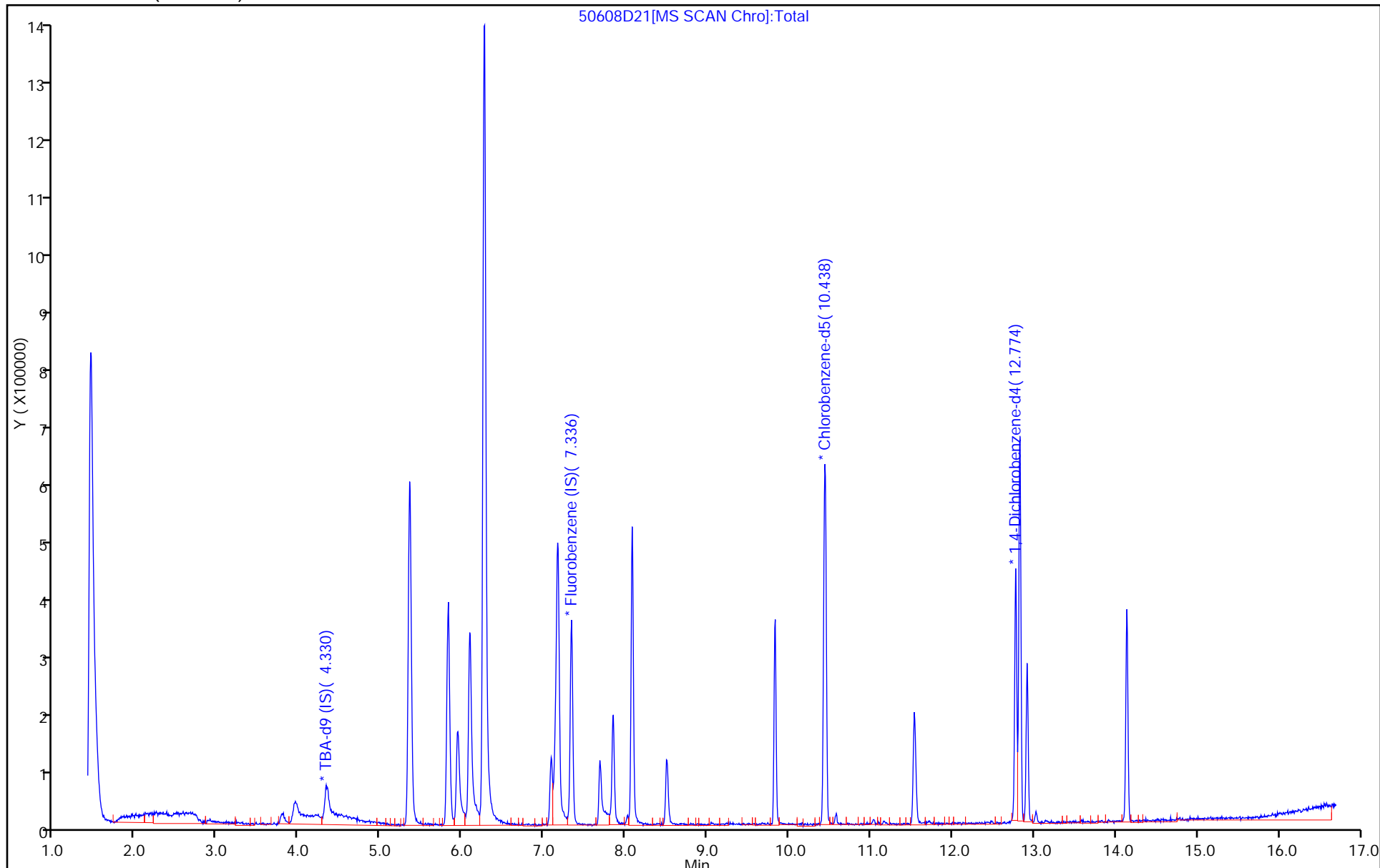
Dil. Factor: 1.0000

ALS Bottle#: 21

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

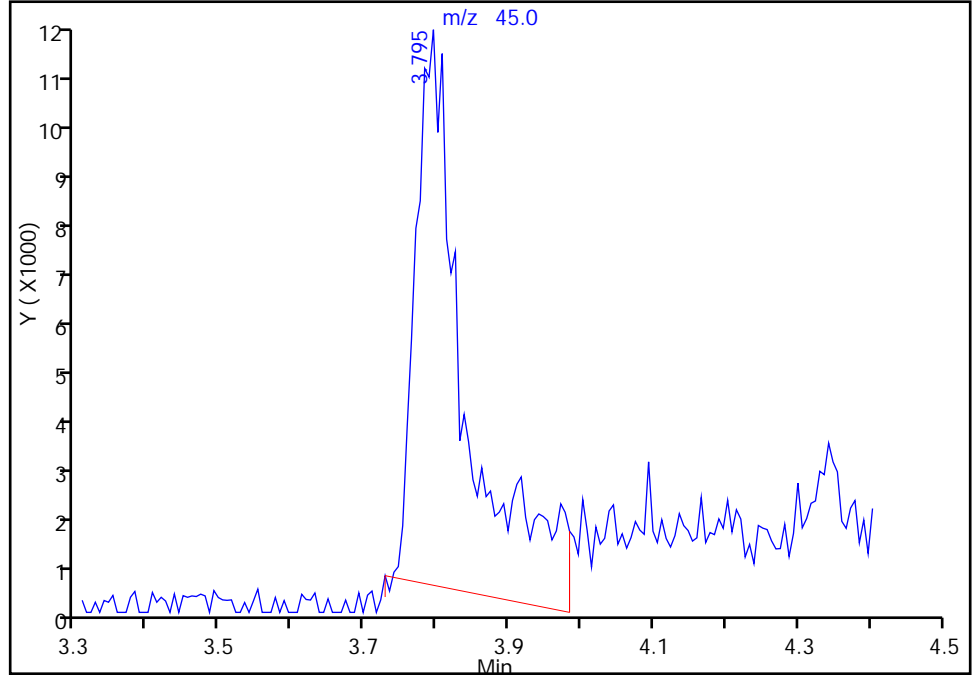
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Injection Date: 08-Jun-2017 13:42:30 Instrument ID: CHHP5  
Lims ID: ICV Appix  
Client ID:  
Operator ID: 034635 ALS Bottle#: 21 Worklist Smp#: 21  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

27 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

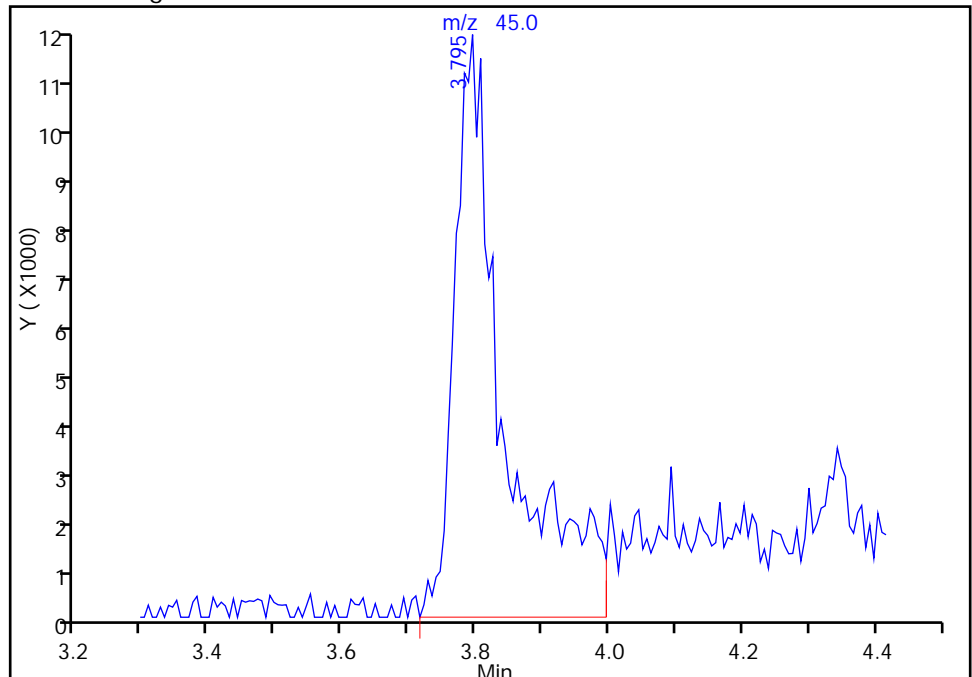
RT: 3.80  
Area: 55118  
Amount: 438.6262  
Amount Units: ng

Processing Integration Results



RT: 3.80  
Area: 62058  
Amount: 465.5188  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Jun-2017 03:50:46  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50727D12.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.2809	0.1000	9.66	10.0	-3.4	30.0
Chloromethane	Ave	0.2922	0.3027	0.1000	10.4	10.0	3.6	30.0
Vinyl chloride	Ave	0.2965	0.3065	0.1000	10.3	10.0	3.3	30.0
1,3-Butadiene	Ave	0.2694	0.2831	0.0100	10.5	10.0	5.1	30.0
Bromomethane	Ave	0.1402	0.1608	0.0500	11.5	10.0	14.7	30.0
Chloroethane	Ave	0.1630	0.1820	0.0500	11.2	10.0	11.6	30.0
Trichlorofluoromethane	Ave	0.3643	0.3577	0.1000	9.82	10.0	-1.8	30.0
Ethyl ether	Ave	0.2370	0.2357	0.0100	9.95	10.0	-0.5	30.0
Acrolein	Ave	0.0597	0.0654	0.0100	32.9	30.0	9.6	30.0
1,1-Dichloroethene	Ave	0.2448	0.2409	0.1000	9.84	10.0	-1.6	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2607	0.1000	9.70	10.0	-3.0	30.0
Acetone	Ave	0.1308	0.1347	0.0500	20.6	20.0	3.0	30.0
Iodomethane	Ave	0.3845	0.3883	0.0100	10.1	10.0	1.0	30.0
Carbon disulfide	Ave	0.5372	0.6133	0.1000	11.4	10.0	14.2	30.0
Allyl chloride	Ave	0.1582	0.1602	0.0100	10.1	10.0	1.2	30.0
Methyl acetate	Ave	0.2589	0.2689	0.1000	20.8	20.0	3.9	30.0
Methylene Chloride	Lin2		0.3063	0.1000	10.1	10.0	1.1	30.0
tert-Butyl alcohol	Ave	1.183	1.166	0.0100	98.6	100	-1.4	30.0
Acrylonitrile	Ave	0.1259	0.1353	0.0100	107	100	7.4	30.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2857	0.1000	10.2	10.0	2.4	30.0
Methyl tert-butyl ether	Ave	0.7479	0.7713	0.1000	10.3	10.0	3.1	30.0
Hexane	Ave	0.3580	0.3468	0.0100	9.69	10.0	-3.1	30.0
1,1-Dichloroethane	Ave	0.4850	0.4829	0.2000	9.96	10.0	-0.4	30.0
Vinyl acetate	Ave	0.4932	0.4943	0.0100	10.0	10.0	0.2	30.0
2,2-Dichloropropane	Ave	0.0617	0.0634	0.0100	10.3	10.0	2.7	30.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3224	0.1000	10.1	10.0	1.1	30.0
2-Butanone (MEK)	Ave	0.1861	0.1911	0.0500	20.5	20.0	2.7	30.0
Bromochloromethane	Ave	0.1418	0.1460	0.0100	10.3	10.0	2.9	30.0
Tetrahydrofuran	Ave	0.1084	0.1087	0.0100	20.1	20.0	0.3	30.0
Chloroform	Ave	0.4843	0.4755	0.2000	9.82	10.0	-1.8	30.0
1,1,1-Trichloroethane	Ave	0.3666	0.3550	0.1000	9.69	10.0	-3.1	30.0
Cyclohexane	Ave	0.4524	0.4637	0.1000	10.3	10.0	2.5	30.0
Carbon tetrachloride	Ave	0.3051	0.2952	0.1000	9.68	10.0	-3.2	30.0
1,1-Dichloropropene	Ave	0.3961	0.3983	0.0100	10.1	10.0	0.6	30.0
Isobutyl alcohol	Ave	0.0099	0.0110	0.0100	276	250	10.5	30.0
Benzene	Ave	1.216	1.247	0.5000	10.3	10.0	2.5	30.0
1,2-Dichloroethane	Ave	0.3544	0.3374	0.1000	9.52	10.0	-4.8	30.0
n-Heptane	Ave	0.2863	0.2915	0.0100	10.2	10.0	1.8	30.0
Trichloroethene	Ave	0.3059	0.3115	0.2000	10.2	10.0	1.8	30.0
Methylcyclohexane	Ave	0.4626	0.4634	0.1000	10.0	10.0	0.2	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50727D12.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2786	0.1000	9.84	10.0	-1.6	30.0
1,4-Dioxane	Ave	0.0029	0.0039*	0.0100	273	200	36.5*	30.0
Dibromomethane	Ave	0.1659	0.1706	0.0100	10.3	10.0	2.8	30.0
Bromodichloromethane	Ave	0.3256	0.3222	0.2000	9.89	10.0	-1.1	30.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.2060	0.0100	20.2	20.0	1.1	30.0
cis-1,3-Dichloropropene	Ave	0.3955	0.4032	0.2000	10.2	10.0	2.0	30.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.431	0.1000	22.3	20.0	11.6	30.0
Toluene	Ave	4.986	5.301	0.4000	10.6	10.0	6.3	30.0
trans-1,3-Dichloropropene	Ave	1.357	1.447	0.1000	10.7	10.0	6.7	30.0
Ethyl methacrylate	Ave	1.636	1.767	0.0100	10.8	10.0	8.0	30.0
1,1,2-Trichloroethane	Ave	1.039	1.083	0.1000	10.4	10.0	4.3	30.0
Tetrachloroethene	Ave	0.9508	0.9658	0.2000	10.2	10.0	1.6	30.0
1,3-Dichloropropane	Ave	1.920	1.986	0.0100	10.3	10.0	3.4	30.0
2-Hexanone	Ave	0.9836	1.087	0.1000	22.1	20.0	10.5	30.0
Dibromochloromethane	Ave	0.8779	0.9020	0.1000	10.3	10.0	2.7	30.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.107	0.1000	10.4	10.0	4.0	30.0
3-Chlorobenzotrifluoride	Ave	1.718	1.530	0.0100	8.91	10.0	-10.9	30.0
Chlorobenzene	Ave	3.246	3.396	0.5000	10.5	10.0	4.6	30.0
4-Chlorobenzotrifluoride	Ave	1.586	1.438	0.0100	9.07	10.0	-9.3	30.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.042	0.0100	10.1	10.0	1.0	30.0
Ethylbenzene	Ave	1.812	1.923	0.1000	10.6	10.0	6.1	30.0
m-Xylene & p-Xylene	Ave	2.214	2.327	0.1000	10.5	10.0	5.1	30.0
o-Xylene	Ave	2.110	2.264	0.3000	10.7	10.0	7.3	30.0
Styrene	Ave	3.571	3.839	0.3000	10.7	10.0	7.5	30.0
Bromoform	Ave	0.5456	0.5467	0.1000	10.0	10.0	0.2	30.0
2-Chlorobenzotrifluoride	Ave	1.644	1.561	0.0100	9.49	10.0	-5.1	30.0
Isopropylbenzene	Ave	5.150	5.633	0.1000	10.9	10.0	9.4	30.0
Bromobenzene	Ave	0.9704	1.028	0.0100	10.6	10.0	5.9	30.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.643	0.3000	10.7	10.0	6.9	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3062	0.0100	10.5	10.0	4.6	30.0
1,2,3-Trichloropropane	Ave	0.4005	0.4174	0.0100	10.4	10.0	4.2	30.0
N-Propylbenzene	Ave	1.109	1.140	0.0100	10.3	10.0	2.8	30.0
2-Chlorotoluene	Ave	0.9585	0.9846	0.0100	10.3	10.0	2.7	30.0
3-Chlorotoluene	Ave	1.043	1.029	0.0100	9.87	10.0	-1.3	30.0
1,3,5-Trimethylbenzene	Ave	3.173	3.384	0.0100	10.7	10.0	6.7	30.0
4-Chlorotoluene	Ave	1.035	1.051	0.0100	10.2	10.0	1.6	30.0
tert-Butylbenzene	Ave	2.653	2.825	0.0100	10.6	10.0	6.5	30.0
1,2,4-Trimethylbenzene	Ave	3.226	3.440	0.0100	10.7	10.0	6.6	30.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7645	0.0100	9.46	10.0	-5.4	30.0
sec-Butylbenzene	Ave	3.701	3.952	0.0100	10.7	10.0	6.8	30.0
1,3-Dichlorobenzene	Ave	1.734	1.823	0.6000	10.5	10.0	5.1	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50727D12.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	3.344	0.0100	10.8	10.0	8.5	30.0
1,4-Dichlorobenzene	Ave	1.780	1.855	0.5000	10.4	10.0	4.2	30.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7245	0.0100	9.63	10.0	-3.7	30.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.7622	0.0100	9.38	10.0	-6.2	30.0
n-Butylbenzene	Ave	2.514	2.754	0.0100	11.0	10.0	9.5	30.0
1,2-Dichlorobenzene	Ave	1.653	1.681	0.4000	10.2	10.0	1.7	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1926	0.0500	10.5	10.0	5.0	30.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.153	0.0100	33.0	30.0	10.0	30.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.253	0.0100	23.1	20.0	15.5	30.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.8934	0.2000	11.8	10.0	18.1	30.0
Hexachlorobutadiene	Ave	0.2767	0.3458	0.0100	12.5	10.0	25.0	30.0
Naphthalene	Ave	2.576	3.238	0.0100	12.6	10.0	25.7	30.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.8533	0.0100	12.4	10.0	23.5	30.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.4854	0.0100	14.8	10.0	47.8*	30.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.4727	0.0100	15.5	10.0	54.7*	30.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2305		9.58	10.0	-4.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2720		9.27	10.0	-7.3	30.0
Toluene-d8 (Surr)	Ave	3.979	4.006		10.1	10.0	0.7	30.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.483		10.3	10.0	3.2	30.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D12.D  
 Lims ID: ICV  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 27-Jul-2017 05:03:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-012  
 Misc. Info.: ICV  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist:  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 05:29:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.323	-0.013	0	309556	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	616746	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	146808	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.779	12.773	0.006	95	194967	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	92	142161	50.0	47.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	167744	50.0	46.3	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	588062	50.0	50.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	86	217745	50.0	51.6	
11 Dichlorodifluoromethane	85	1.658	1.646	0.012	98	173225	50.0	48.3	
12 Chloromethane	50	1.798	1.804	-0.006	99	186658	50.0	51.8	
13 Vinyl chloride	62	1.950	1.944	0.006	97	189015	50.0	51.7	
14 Butadiene	39	1.962	1.969	-0.006	95	174612	50.0	52.6	
15 Bromomethane	94	2.285	2.254	0.031	90	99140	50.0	57.3	
16 Chloroethane	64	2.437	2.419	0.018	98	112216	50.0	55.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	98	265813	50.0	52.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	98	220607	50.0	49.1	
20 Ethyl ether	59	3.075	3.076	-0.001	89	145366	50.0	49.7	
21 Acrolein	56	3.264	3.252	0.012	96	121056	150.0	164.3	
22 1,1-Dichloroethene	96	3.380	3.368	0.012	97	148564	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.459	3.441	0.018	93	160786	50.0	48.5	
24 Acetone	43	3.483	3.477	0.006	100	166171	100.0	103.0	
25 Iodomethane	142	3.574	3.562	0.012	96	239509	50.0	50.5	
26 Carbon disulfide	76	3.653	3.648	0.005	98	378238	50.0	57.1	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	92	98775	50.0	50.6	
30 Methyl acetate	43	3.970	3.976	-0.006	96	331711	100.0	103.9	
31 Methylene Chloride	84	4.170	4.165	0.005	87	188888	50.0	50.5	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	94	180509	500.0	493.1	
33 Acrylonitrile	53	4.554	4.554	0.000	99	834262	500.0	537.2	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	97	176224	50.0	51.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	475667	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	94	213877	50.0	48.4	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	297817	50.0	49.8	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	304875	50.0	50.1	
44 2,2-Dichloropropane	97	5.965	5.959	0.006	72	39126	50.0	51.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	198830	50.0	50.5	
46 2-Butanone (MEK)	43	5.977	5.978	-0.001	98	235673	100.0	102.7	
49 Chlorobromomethane	128	6.251	6.245	0.006	96	90022	50.0	51.5	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	134047	100.0	100.3	
52 Chloroform	83	6.391	6.391	0.000	92	293244	50.0	49.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	218969	50.0	48.4	
54 Cyclohexane	56	6.616	6.622	-0.006	90	285972	50.0	51.3	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	78	182071	50.0	48.4	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	97	245628	50.0	50.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	54	169537	1250.0	1381.5	
58 Benzene	78	6.951	6.951	0.000	97	768845	50.0	51.3	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	208088	50.0	47.6	
62 n-Heptane	43	7.316	7.316	0.000	87	179790	50.0	50.9	
64 Trichloroethene	130	7.687	7.687	0.000	98	192140	50.0	50.9	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	285824	50.0	50.1	
67 1,2-Dichloropropane	63	7.954	7.961	-0.007	94	171825	50.0	49.2	
68 Dibromomethane	93	8.046	8.046	0.000	97	105219	50.0	51.4	
70 1,4-Dioxane	88	8.046	8.052	-0.006	43	48464	1000.0	1364.9	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	198702	50.0	49.5	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	254051	100.0	101.1	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	97	248692	50.0	51.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	95	420246	100.0	111.6	
76 Toluene	91	9.019	9.019	0.000	99	778258	50.0	53.2	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	94	212503	50.0	53.4	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	259430	50.0	54.0	
79 1,1,2-Trichloroethane	97	9.463	9.457	0.006	90	158965	50.0	52.1	
80 Tetrachloroethene	164	9.530	9.530	0.000	98	141786	50.0	50.8	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	88	291510	50.0	51.7	
82 2-Hexanone	43	9.676	9.682	-0.006	95	319182	100.0	110.5	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	132419	50.0	51.4	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	162562	50.0	52.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	224643	50.0	44.5	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	498591	50.0	52.3	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	95	211115	50.0	45.3	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	93	153003	50.0	50.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	282349	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	341607	50.0	52.5	
92 o-Xylene	106	11.051	11.051	0.000	95	332342	50.0	53.7	
93 Styrene	104	11.075	11.069	0.006	94	563532	50.0	53.7	
94 Bromoform	173	11.258	11.252	0.006	96	80252	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	229108	50.0	47.5	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	826910	50.0	54.7	
100 Bromobenzene	156	11.738	11.739	-0.001	94	200399	50.0	53.0	
99 1,1,2,2-Tetrachloroethane	83	11.744	11.745	-0.001	93	241229	50.0	53.4	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	83	59701	50.0	52.3	
101 1,2,3-Trichloropropane	110	11.799	11.793	0.006	85	81373	50.0	52.1	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	222347	50.0	51.4	
104 2-Chlorotoluene	126	11.933	11.927	0.006	97	191963	50.0	51.4	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.000	11.994	0.006	96	200650	50.0	49.4	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	659799	50.0	53.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	204976	50.0	50.8	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	550715	50.0	53.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	670609	50.0	53.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	98	149049	50.0	47.3	
112 sec-Butylbenzene	105	12.578	12.572	0.006	94	770511	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.693	12.688	0.005	97	355343	50.0	52.6	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	651895	50.0	54.2	
115 1,4-Dichlorobenzene	146	12.803	12.797	0.006	96	361638	50.0	52.1	
116 2,4-Dichloro-1-(trifluorom	214	12.833	12.828	0.005	96	141250	50.0	48.1	
118 2,5-Dichlorobenzotrifluori	214	12.876	12.870	0.006	0	148594	50.0	46.9	
120 n-Butylbenzene	91	13.156	13.150	0.006	97	536973	50.0	54.8	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	96	327689	50.0	50.8	
122 1,2-Dibromo-3-Chloropropan	75	13.983	13.971	0.012	81	37554	50.0	52.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.129	14.117	0.012	0	674227	150.0	164.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.567	14.555	0.012	0	488395	100.0	115.5	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	95	174187	50.0	59.1	
127 Hexachlorobutadiene	225	15.011	14.993	0.018	98	67422	50.0	62.5	
128 Naphthalene	128	15.127	15.103	0.024	97	631232	50.0	62.8	
129 1,2,3-Trichlorobenzene	180	15.370	15.346	0.024	95	166357	50.0	61.8	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	94632	50.0	73.9	
130 2,3,6-Trichlorotoluene	159	16.343	16.307	0.036	96	92162	50.0	77.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	101.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	104.3	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWAcro2ndRe_00012	Amount Added: 6.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWee2ndRest_00014	Amount Added: 2.00	Units: uL	
voaW2cleve2nd_00013	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00255	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D12.D

Injection Date: 27-Jul-2017 05:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICV

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

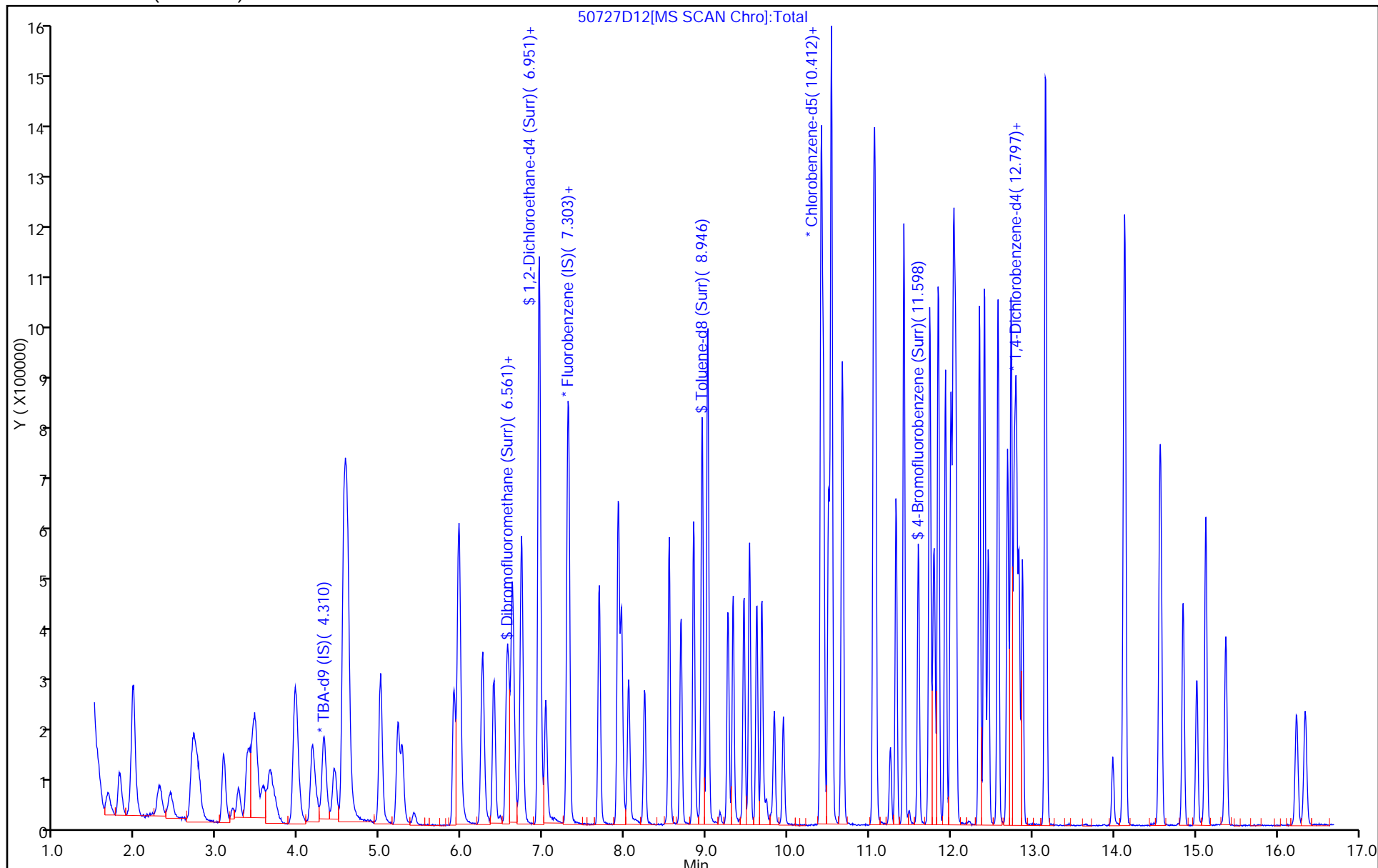
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219487/2 Calibration Date: 08/09/2017 01:50  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50809D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.2749	0.1000	9.45	10.0	-5.5	20.0
Chloromethane	Ave	0.2922	0.2867	0.1000	9.81	10.0	-1.9	20.0
Vinyl chloride	Ave	0.2965	0.2840	0.1000	9.58	10.0	-4.2	20.0
1,3-Butadiene	Ave	0.2694	0.2466	0.0100	9.15	10.0	-8.5	20.0
Bromomethane	Ave	0.1402	0.1444	0.0500	10.3	10.0	3.0	20.0
Chloroethane	Ave	0.1630	0.1675	0.0500	10.3	10.0	2.8	20.0
Trichlorofluoromethane	Ave	0.3643	0.3569	0.1000	9.80	10.0	-2.0	20.0
Ethyl ether	Ave	0.2370	0.2419	0.0100	10.2	10.0	2.1	20.0
Acrolein	Ave	0.0597	0.0344	0.0100	17.3	30.0	-42.5*	20.0
1,1-Dichloroethene	Ave	0.2448	0.2200	0.1000	8.99	10.0	-10.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2371	0.1000	8.83	10.0	-11.7	20.0
Acetone	Ave	0.1308	0.1126	0.0500	17.2	20.0	-13.9	20.0
Iodomethane	Ave	0.3845	0.3528	0.0100	9.18	10.0	-8.2	20.0
Carbon disulfide	Ave	0.5372	0.3600	0.1000	6.70	10.0	-33.0*	20.0
Allyl chloride	Ave	0.1582	0.1388	0.0100	8.78	10.0	-12.2	20.0
Methyl acetate	Ave	0.2589	0.2532	0.1000	19.6	20.0	-2.2	20.0
Methylene Chloride	Lin2		0.2957	0.1000	9.74	10.0	-2.6	20.0
tert-Butyl alcohol	Ave	1.183	1.250	0.0100	106	100	5.7	20.0
Acrylonitrile	Ave	0.1259	0.1233	0.0100	97.9	100	-2.1	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2660	0.1000	9.54	10.0	-4.6	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7188	0.1000	9.61	10.0	-3.9	20.0
Hexane	Ave	0.3580	0.2908	0.0100	8.12	10.0	-18.8	20.0
1,1-Dichloroethane	Ave	0.4850	0.4611	0.2000	9.51	10.0	-4.9	20.0
Vinyl acetate	Ave	0.4932	0.3809	0.0100	7.72	10.0	-22.8*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0586	0.0100	9.50	10.0	-5.0	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2964	0.1000	9.29	10.0	-7.1	20.0
2-Butanone (MEK)	Ave	0.1861	0.1585	0.0500	17.0	20.0	-14.9	20.0
Bromochloromethane	Ave	0.1418	0.1369	0.0100	9.66	10.0	-3.4	20.0
Tetrahydrofuran	Ave	0.1084	0.0994	0.0100	18.3	20.0	-8.3	20.0
Chloroform	Ave	0.4843	0.4661	0.2000	9.62	10.0	-3.8	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3355	0.1000	9.15	10.0	-8.5	20.0
Cyclohexane	Ave	0.4524	0.3857	0.1000	8.53	10.0	-14.7	20.0
Carbon tetrachloride	Ave	0.3051	0.2740	0.1000	8.98	10.0	-10.2	20.0
1,1-Dichloropropene	Ave	0.3961	0.3539	0.0100	8.94	10.0	-10.6	20.0
Isobutyl alcohol	Ave	0.0099	0.0097*	0.0100	243	250	-2.8	20.0
Benzene	Ave	1.216	1.146	0.5000	9.43	10.0	-5.7	20.0
1,2-Dichloroethane	Ave	0.3544	0.3494	0.1000	9.86	10.0	-1.4	20.0
n-Heptane	Ave	0.2863	0.2654	0.0100	9.27	10.0	-7.3	20.0
Trichloroethene	Ave	0.3059	0.2752	0.2000	8.99	10.0	-10.1	20.0
Methylcyclohexane	Ave	0.4626	0.3906	0.1000	8.44	10.0	-15.6	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219487/2 Calibration Date: 08/09/2017 01:50  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50809D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2722	0.1000	9.62	10.0	-3.8	20.0
1,4-Dioxane	Ave	0.0029	0.0023*	0.0100	163	200	-18.5	20.0
Dibromomethane	Ave	0.1659	0.1537	0.0100	9.27	10.0	-7.3	20.0
Bromodichloromethane	Ave	0.3256	0.2869	0.2000	8.81	10.0	-11.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1750	0.0100	17.2	20.0	-14.1	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3611	0.2000	9.13	10.0	-8.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.089	0.1000	17.0	20.0	-15.0	20.0
Toluene	Ave	4.986	4.985	0.4000	10.0	10.0	-0.0	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.287	0.1000	9.48	10.0	-5.2	20.0
Ethyl methacrylate	Ave	1.636	1.496	0.0100	9.14	10.0	-8.6	20.0
1,1,2-Trichloroethane	Ave	1.039	1.062	0.1000	10.2	10.0	2.3	20.0
Tetrachloroethene	Ave	0.9508	0.8792	0.2000	9.25	10.0	-7.5	20.0
1,3-Dichloropropane	Ave	1.920	1.902	0.0100	9.91	10.0	-0.9	20.0
2-Hexanone	Ave	0.9836	0.7999	0.1000	16.3	20.0	-18.7	20.0
Dibromochloromethane	Ave	0.8779	0.8086	0.1000	9.21	10.0	-7.9	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.031	0.1000	9.68	10.0	-3.2	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.886	0.0100	11.0	10.0	9.8	20.0
Chlorobenzene	Ave	3.246	3.182	0.5000	9.80	10.0	-2.0	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.747	0.0100	11.0	10.0	10.2	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.000	0.0100	9.68	10.0	-3.2	20.0
Ethylbenzene	Ave	1.812	1.701	0.1000	9.39	10.0	-6.1	20.0
m-Xylene & p-Xylene	Ave	2.214	2.088	0.1000	9.43	10.0	-5.7	20.0
o-Xylene	Ave	2.110	2.047	0.3000	9.70	10.0	-3.0	20.0
Styrene	Ave	3.571	3.514	0.3000	9.84	10.0	-1.6	20.0
Bromoform	Ave	0.5456	0.4715	0.1000	8.64	10.0	-13.6	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.805	0.0100	11.0	10.0	9.8	20.0
Isopropylbenzene	Ave	5.150	4.984	0.1000	9.68	10.0	-3.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.500	0.3000	9.75	10.0	-2.5	20.0
Bromobenzene	Ave	0.9704	0.8745	0.0100	9.01	10.0	-9.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2841	0.0100	9.71	10.0	-2.9	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3823	0.0100	9.55	10.0	-4.5	20.0
N-Propylbenzene	Ave	1.109	1.000	0.0100	9.02	10.0	-9.8	20.0
2-Chlorotoluene	Ave	0.9585	0.8861	0.0100	9.24	10.0	-7.6	20.0
3-Chlorotoluene	Ave	1.043	1.079	0.0100	10.3	10.0	3.5	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.024	0.0100	9.53	10.0	-4.7	20.0
4-Chlorotoluene	Ave	1.035	0.9541	0.0100	9.22	10.0	-7.8	20.0
tert-Butylbenzene	Ave	2.653	2.412	0.0100	9.09	10.0	-9.1	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.046	0.0100	9.44	10.0	-5.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.8490	0.0100	10.5	10.0	5.1	20.0
sec-Butylbenzene	Ave	3.701	3.487	0.0100	9.42	10.0	-5.8	20.0
1,3-Dichlorobenzene	Ave	1.734	1.607	0.6000	9.27	10.0	-7.3	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219487/2 Calibration Date: 08/09/2017 01:50  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50809D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	2.917	0.0100	9.46	10.0	-5.4	20.0
1,4-Dichlorobenzene	Ave	1.780	1.695	0.5000	9.52	10.0	-4.8	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7526	0.0100	10.0	10.0	0.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.8566	0.0100	10.5	10.0	5.4	20.0
n-Butylbenzene	Ave	2.514	2.333	0.0100	9.28	10.0	-7.2	20.0
1,2-Dichlorobenzene	Ave	1.653	1.530	0.4000	9.26	10.0	-7.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1673	0.0500	9.12	10.0	-8.8	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.144	0.0100	32.7	30.0	9.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.178	0.0100	21.7	20.0	8.6	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.7367	0.2000	9.74	10.0	-2.6	20.0
Hexachlorobutadiene	Ave	0.2767	0.2641	0.0100	9.54	10.0	-4.6	20.0
Naphthalene	Ave	2.576	2.343	0.0100	9.09	10.0	-9.1	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.6737	0.0100	9.75	10.0	-2.5	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.3483	0.0100	10.6	10.0	6.1	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.3555	0.0100	11.6	10.0	16.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2288		9.51	10.0	-4.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2846		9.70	10.0	-3.0	20.0
Toluene-d8 (Surr)	Ave	3.979	4.107		10.3	10.0	3.2	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.493		10.4	10.0	3.9	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D02.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 09-Aug-2017 01:50:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-002  
 Misc. Info.: CCVIS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub29  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 02:47:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.373	4.373	0.000	0	237912	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.336	0.000	97	533380	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.426	10.426	0.000	85	122960	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.768	0.000	94	168425	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.618	0.000	93	122044	50.0	47.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.983	0.000	0	151818	50.0	48.5	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.978	0.000	92	504942	50.0	51.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	86	183549	50.0	51.9	
11 Dichlorodifluoromethane	85	1.684	1.684	0.000	94	146602	50.0	47.3	
12 Chloromethane	50	1.830	1.830	0.000	99	152904	50.0	49.1	
13 Vinyl chloride	62	1.970	1.970	0.000	98	151459	50.0	47.9	
14 Butadiene	39	1.988	1.988	0.000	96	131534	50.0	45.8	
15 Bromomethane	94	2.292	2.292	0.000	89	76992	50.0	51.5	
16 Chloroethane	64	2.457	2.457	0.000	99	89356	50.0	51.4	
17 Dichlorofluoromethane	67	2.743	2.743	0.000	98	236629	50.0	53.8	
18 Trichlorofluoromethane	101	2.791	2.791	0.000	94	190365	50.0	49.0	M
20 Ethyl ether	59	3.120	3.120	0.000	89	129042	50.0	51.0	
21 Acrolein	56	3.302	3.302	0.000	99	54987	150.0	86.3	
22 1,1-Dichloroethene	96	3.424	3.424	0.000	97	117350	50.0	44.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.497	3.497	0.000	94	126461	50.0	44.1	
24 Acetone	43	3.533	3.533	0.000	99	120147	100.0	86.1	
25 Iodomethane	142	3.619	3.619	0.000	98	188159	50.0	45.9	
26 Carbon disulfide	76	3.698	3.698	0.000	98	192033	50.0	33.5	
28 3-Chloro-1-propene	76	4.002	4.002	0.000	91	74052	50.0	43.9	
30 Methyl acetate	43	4.026	4.026	0.000	96	270100	100.0	97.8	
31 Methylene Chloride	84	4.221	4.221	0.000	87	157715	50.0	48.7	
32 2-Methyl-2-propanol	59	4.507	4.507	0.000	92	148687	500.0	528.5	
33 Acrylonitrile	53	4.604	4.604	0.000	98	657623	500.0	489.7	
34 trans-1,2-Dichloroethene	96	4.635	4.635	0.000	99	141871	50.0	47.7	
35 Methyl tert-butyl ether	73	4.659	4.659	0.000	96	383365	50.0	48.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.048	5.048	0.000	95	155088	50.0	40.6	
37 1,1-Dichloroethane	63	5.267	5.267	0.000	96	245952	50.0	47.5	
38 Vinyl acetate	43	5.322	5.322	0.000	97	203140	50.0	38.6	
44 2,2-Dichloropropane	97	6.009	6.009	0.000	58	31278	50.0	47.5	
45 cis-1,2-Dichloroethene	96	6.009	6.009	0.000	81	158079	50.0	46.5	
46 2-Butanone (MEK)	43	6.022	6.022	0.000	99	169045	100.0	85.1	
49 Chlorobromomethane	128	6.289	6.289	0.000	95	73034	50.0	48.3	
51 Tetrahydrofuran	42	6.307	6.307	0.000	86	105989	100.0	91.7	
52 Chloroform	83	6.435	6.435	0.000	93	248614	50.0	48.1	
53 1,1,1-Trichloroethane	97	6.593	6.593	0.000	99	178970	50.0	45.8	
54 Cyclohexane	56	6.660	6.660	0.000	91	205698	50.0	42.6	
56 Carbon tetrachloride	117	6.758	6.758	0.000	96	146129	50.0	44.9	
55 1,1-Dichloropropene	75	6.776	6.776	0.000	96	188768	50.0	44.7	
57 Isobutyl alcohol	41	6.983	6.983	0.000	91	128940	1250.0	1214.9	
58 Benzene	78	6.995	6.995	0.000	97	611410	50.0	47.1	
59 1,2-Dichloroethane	62	7.068	7.068	0.000	98	186380	50.0	49.3	
62 n-Heptane	43	7.354	7.354	0.000	86	141566	50.0	46.4	
64 Trichloroethene	130	7.725	7.725	0.000	98	146765	50.0	45.0	
66 Methylcyclohexane	83	7.956	7.956	0.000	87	208314	50.0	42.2	
67 1,2-Dichloropropane	63	7.993	7.993	0.000	94	145206	50.0	48.1	
70 1,4-Dioxane	88	8.078	8.078	0.000	40	25013	1000.0	814.5	
68 Dibromomethane	93	8.084	8.084	0.000	95	81979	50.0	46.3	
71 Dichlorobromomethane	83	8.279	8.279	0.000	99	153013	50.0	44.1	
73 2-Chloroethyl vinyl ether	63	8.577	8.577	0.000	93	186723	100.0	85.9	
74 cis-1,3-Dichloropropene	75	8.717	8.717	0.000	96	192614	50.0	45.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.875	8.875	0.000	95	267925	100.0	85.0	
76 Toluene	91	9.045	9.045	0.000	99	612951	50.0	50.0	
77 trans-1,3-Dichloropropene	75	9.294	9.294	0.000	92	158188	50.0	47.4	
78 Ethyl methacrylate	69	9.355	9.355	0.000	88	183910	50.0	45.7	
79 1,1,2-Trichloroethane	97	9.489	9.489	0.000	91	130585	50.0	51.1	
80 Tetrachloroethene	164	9.556	9.556	0.000	97	108101	50.0	46.2	
81 1,3-Dichloropropane	76	9.647	9.647	0.000	89	233915	50.0	49.5	
82 2-Hexanone	43	9.702	9.702	0.000	96	196721	100.0	81.3	
84 Chlorodibromomethane	129	9.860	9.860	0.000	91	99424	50.0	46.1	
85 Ethylene Dibromide	107	9.970	9.970	0.000	99	126821	50.0	48.4	
86 3-Chlorobenzotrifluoride	180	10.432	10.432	0.000	89	231904	50.0	54.9	
87 Chlorobenzene	112	10.456	10.456	0.000	93	391269	50.0	49.0	
88 4-Chlorobenzotrifluoride	180	10.517	10.517	0.000	96	214811	50.0	55.1	
89 1,1,1,2-Tetrachloroethane	131	10.548	10.548	0.000	90	122901	50.0	48.4	
90 Ethylbenzene	106	10.560	10.560	0.000	98	209194	50.0	46.9	
91 m-Xylene & p-Xylene	106	10.688	10.688	0.000	0	256790	50.0	47.2	
92 o-Xylene	106	11.071	11.071	0.000	95	251750	50.0	48.5	
93 Styrene	104	11.089	11.089	0.000	94	432044	50.0	49.2	
94 Bromoform	173	11.272	11.272	0.000	95	57973	50.0	43.2	
96 2-Chlorobenzotrifluoride	180	11.339	11.339	0.000	97	221913	50.0	54.9	
97 Isopropylbenzene	105	11.436	11.436	0.000	96	612804	50.0	48.4	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.752	0.000	92	184430	50.0	48.8	
100 Bromobenzene	156	11.752	11.752	0.000	93	147295	50.0	45.1	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.789	0.000	75	47857	50.0	48.6	
101 1,2,3-Trichloropropane	110	11.807	11.807	0.000	85	64391	50.0	47.7	
103 N-Propylbenzene	120	11.856	11.856	0.000	98	168438	50.0	45.1	
104 2-Chlorotoluene	126	11.941	11.941	0.000	96	149233	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	96	181679	50.0	51.7	
106 1,3,5-Trimethylbenzene	105	12.038	12.038	0.000	95	509266	50.0	47.6	
107 4-Chlorotoluene	126	12.062	12.062	0.000	96	160687	50.0	46.1	
108 tert-Butylbenzene	119	12.348	12.348	0.000	93	406214	50.0	45.5	
110 1,2,4-Trimethylbenzene	105	12.409	12.409	0.000	97	513075	50.0	47.2	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	96	142992	50.0	52.5	
112 sec-Butylbenzene	105	12.573	12.573	0.000	94	587350	50.0	47.1	
113 1,3-Dichlorobenzene	146	12.695	12.695	0.000	96	270630	50.0	46.3	
114 4-Isopropyltoluene	119	12.732	12.732	0.000	97	491291	50.0	47.3	
115 1,4-Dichlorobenzene	146	12.792	12.792	0.000	95	285501	50.0	47.6	
116 2,4-Dichloro-1-(trifluorom	214	12.823	12.823	0.000	96	126763	50.0	50.0	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.865	0.000	0	144269	50.0	52.7	
120 n-Butylbenzene	91	13.139	13.139	0.000	98	392923	50.0	46.4	
121 1,2-Dichlorobenzene	146	13.151	13.151	0.000	96	257672	50.0	46.3	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.948	0.000	81	28179	50.0	45.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.082	0.000	0	578098	150.0	163.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.502	0.000	0	396724	100.0	108.6	
126 1,2,4-Trichlorobenzene	180	14.763	14.763	0.000	94	124075	50.0	48.7	
127 Hexachlorobutadiene	225	14.916	14.916	0.000	96	44479	50.0	47.7	
128 Naphthalene	128	15.031	15.031	0.000	97	394538	50.0	45.5	
129 1,2,3-Trichlorobenzene	180	15.262	15.262	0.000	95	113468	50.0	48.8	
131 2,4,5-Trichlorotoluene	159	16.029	16.029	0.000	0	58668	50.0	53.0	
130 2,3,6-Trichlorotoluene	159	16.120	16.120	0.000	95	59868	50.0	58.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	94.1	
S 133 Xylenes, Total	106				0		100.0	95.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	93.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00014	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D02.D

Injection Date: 09-Aug-2017 01:50:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

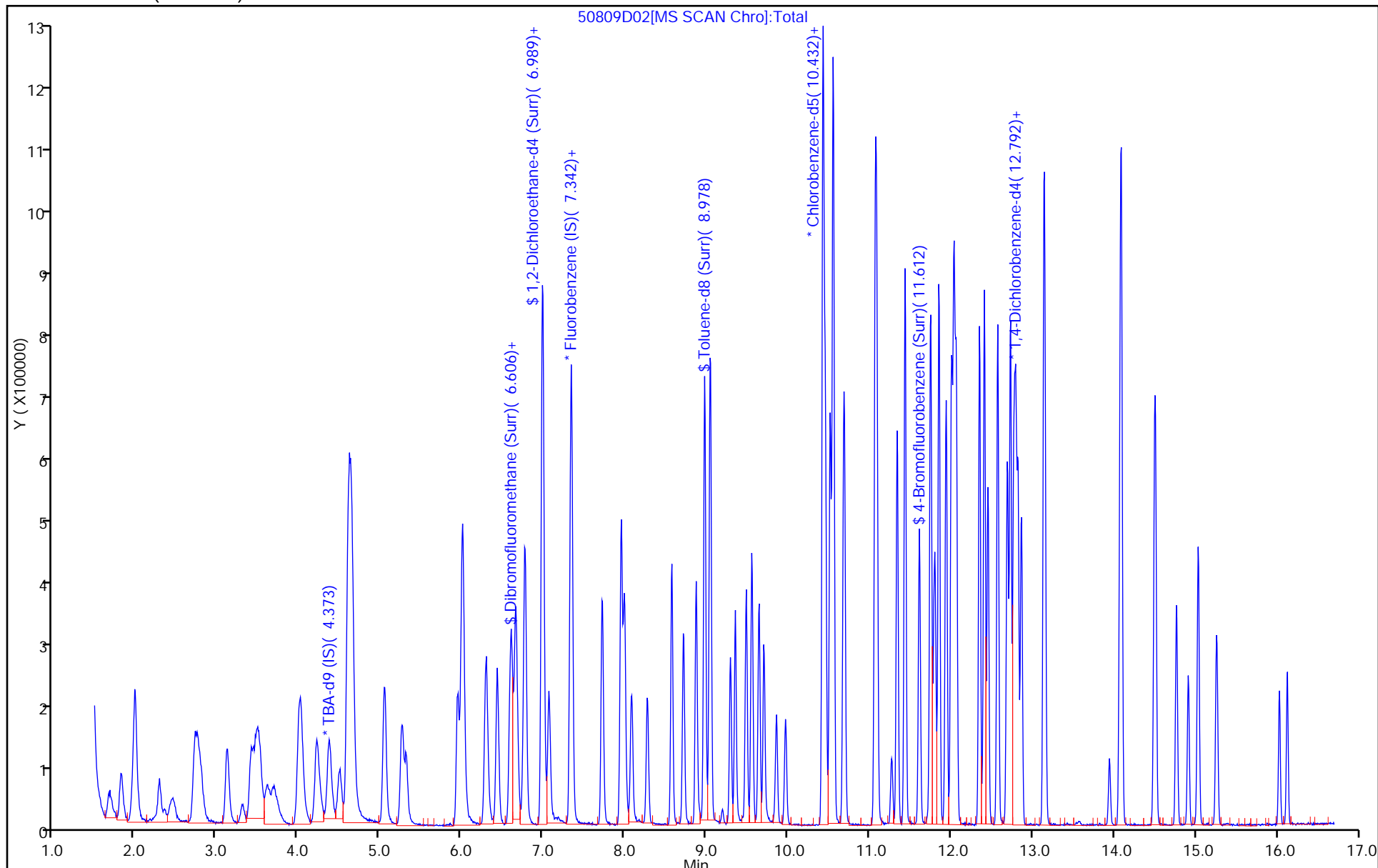
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

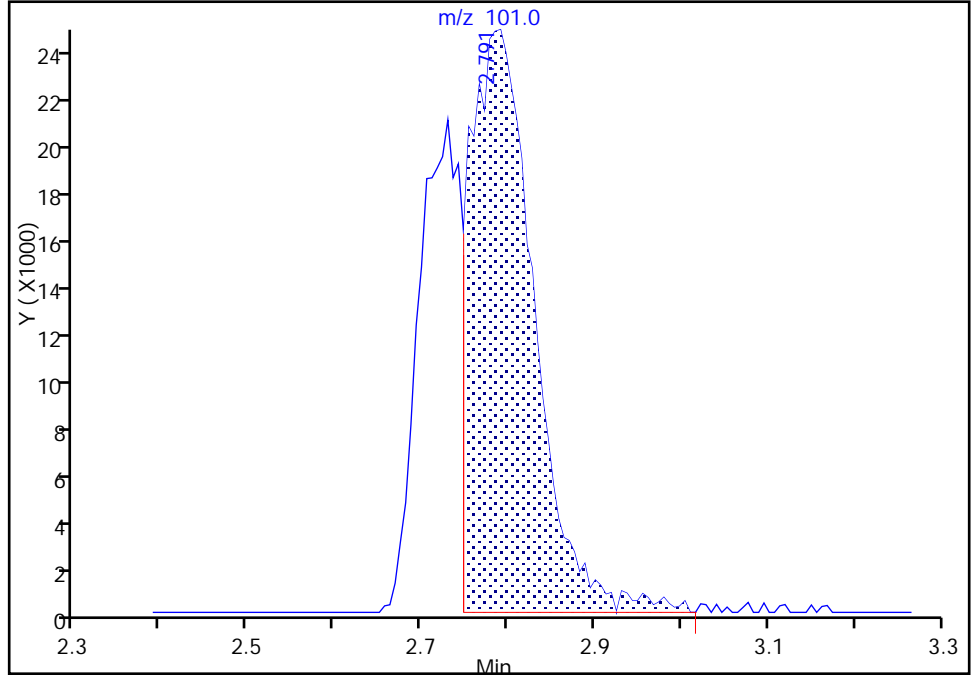
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D02.D  
Injection Date: 09-Aug-2017 01:50:30 Instrument ID: CHHP5  
Lims ID: CCVIS  
Client ID:  
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

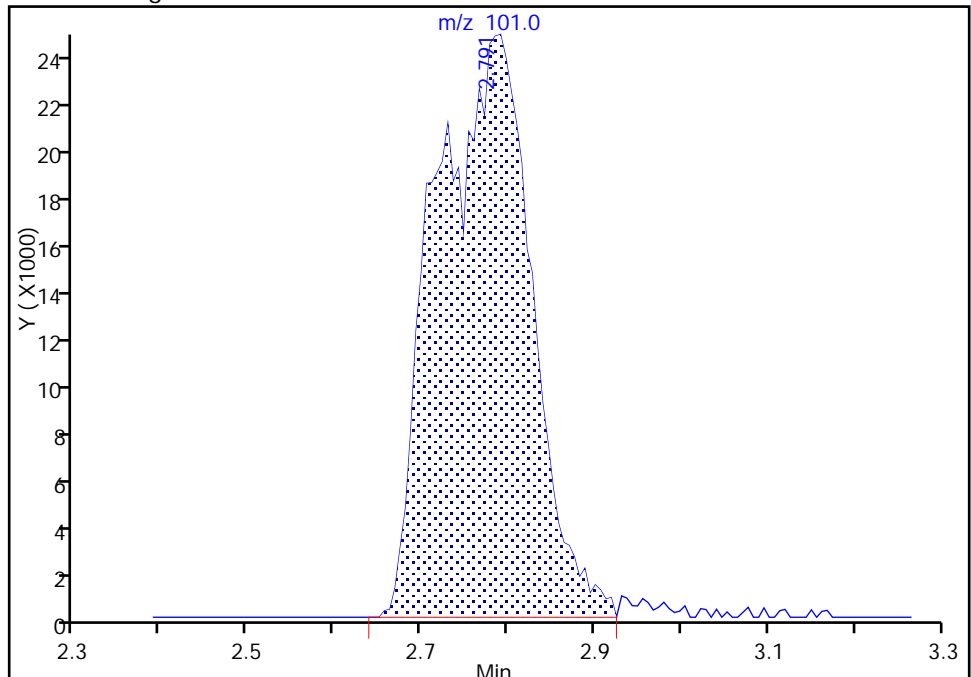
RT: 2.79  
Area: 128184  
Amount: 32.980190  
Amount Units: ng

Processing Integration Results



RT: 2.79  
Area: 190365  
Amount: 48.978608  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Aug-2017 03:31:05  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219617/2 Calibration Date: 08/10/2017 00:22  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50810D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.3036	0.1000	10.4	10.0	4.4	20.0
Chloromethane	Ave	0.2922	0.3078	0.1000	10.5	10.0	5.4	20.0
Vinyl chloride	Ave	0.2965	0.3076	0.1000	10.4	10.0	3.7	20.0
1,3-Butadiene	Ave	0.2694	0.2775	0.0100	10.3	10.0	3.0	20.0
Bromomethane	Ave	0.1402	0.1499	0.0500	10.7	10.0	6.9	20.0
Chloroethane	Ave	0.1630	0.1756	0.0500	10.8	10.0	7.7	20.0
Trichlorofluoromethane	Ave	0.3643	0.3956	0.1000	10.9	10.0	8.6	20.0
Ethyl ether	Ave	0.2370	0.2352	0.0100	9.92	10.0	-0.8	20.0
Acrolein	Ave	0.0597	0.0360	0.0100	18.1	30.0	-39.8*	20.0
1,1-Dichloroethene	Ave	0.2448	0.2386	0.1000	9.75	10.0	-2.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2659	0.1000	9.90	10.0	-1.0	20.0
Acetone	Ave	0.1308	0.1575	0.0500	24.1	20.0	20.4*	20.0
Iodomethane	Ave	0.3845	0.3638	0.0100	9.46	10.0	-5.4	20.0
Carbon disulfide	Ave	0.5372	0.3848	0.1000	7.16	10.0	-28.4*	20.0
Allyl chloride	Ave	0.1582	0.1372	0.0100	8.67	10.0	-13.3	20.0
Methyl acetate	Ave	0.2589	0.2647	0.1000	20.4	20.0	2.2	20.0
Methylene Chloride	Lin2		0.2924	0.1000	9.62	10.0	-3.8	20.0
tert-Butyl alcohol	Ave	1.183	1.115	0.0100	94.3	100	-5.7	20.0
Acrylonitrile	Ave	0.1259	0.1207	0.0100	95.8	100	-4.2	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2758	0.1000	9.89	10.0	-1.1	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6975	0.1000	9.33	10.0	-6.7	20.0
Hexane	Ave	0.3580	0.3140	0.0100	8.77	10.0	-12.3	20.0
1,1-Dichloroethane	Ave	0.4850	0.4613	0.2000	9.51	10.0	-4.9	20.0
Vinyl acetate	Ave	0.4932	0.3379	0.0100	6.85	10.0	-31.5*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0619	0.0100	10.0	10.0	0.3	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3021	0.1000	9.47	10.0	-5.3	20.0
2-Butanone (MEK)	Ave	0.1861	0.1868	0.0500	20.1	20.0	0.4	20.0
Bromochloromethane	Ave	0.1418	0.1324	0.0100	9.34	10.0	-6.6	20.0
Tetrahydrofuran	Ave	0.1084	0.0930	0.0100	17.2	20.0	-14.2	20.0
Chloroform	Ave	0.4843	0.4623	0.2000	9.55	10.0	-4.5	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3543	0.1000	9.67	10.0	-3.3	20.0
Cyclohexane	Ave	0.4524	0.4120	0.1000	9.11	10.0	-8.9	20.0
Carbon tetrachloride	Ave	0.3051	0.2893	0.1000	9.48	10.0	-5.2	20.0
1,1-Dichloropropene	Ave	0.3961	0.3768	0.0100	9.51	10.0	-4.9	20.0
Benzene	Ave	1.216	1.187	0.5000	9.77	10.0	-2.3	20.0
Isobutyl alcohol	Ave	0.0099	0.0081*	0.0100	204	250	-18.5	20.0
1,2-Dichloroethane	Ave	0.3544	0.3455	0.1000	9.75	10.0	-2.5	20.0
n-Heptane	Ave	0.2863	0.2914	0.0100	10.2	10.0	1.8	20.0
Trichloroethene	Ave	0.3059	0.2834	0.2000	9.26	10.0	-7.4	20.0
Methylcyclohexane	Ave	0.4626	0.4176	0.1000	9.03	10.0	-9.7	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219617/2 Calibration Date: 08/10/2017 00:22  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50810D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2658	0.1000	9.39	10.0	-6.1	20.0
1,4-Dioxane	Ave	0.0029	0.0027*	0.0100	187	200	-6.4	20.0
Dibromomethane	Ave	0.1659	0.1481	0.0100	8.93	10.0	-10.7	20.0
Bromodichloromethane	Ave	0.3256	0.2833	0.2000	8.70	10.0	-13.0	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1606	0.0100	15.8	20.0	-21.2*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3540	0.2000	8.95	10.0	-10.5	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.157	0.1000	18.0	20.0	-9.8	20.0
Toluene	Ave	4.986	5.141	0.4000	10.3	10.0	3.1	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.248	0.1000	9.20	10.0	-8.0	20.0
Ethyl methacrylate	Ave	1.636	1.511	0.0100	9.24	10.0	-7.6	20.0
1,1,2-Trichloroethane	Ave	1.039	1.035	0.1000	9.97	10.0	-0.3	20.0
Tetrachloroethene	Ave	0.9508	0.9691	0.2000	10.2	10.0	1.9	20.0
1,3-Dichloropropane	Ave	1.920	1.821	0.0100	9.48	10.0	-5.2	20.0
2-Hexanone	Ave	0.9836	0.9217	0.1000	18.7	20.0	-6.3	20.0
Dibromochloromethane	Ave	0.8779	0.8092	0.1000	9.22	10.0	-7.8	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.033	0.1000	9.69	10.0	-3.1	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.742	0.0100	10.1	10.0	1.4	20.0
Chlorobenzene	Ave	3.246	3.194	0.5000	9.84	10.0	-1.6	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.626	0.0100	10.3	10.0	2.5	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.009	0.0100	9.77	10.0	-2.3	20.0
Ethylbenzene	Ave	1.812	1.737	0.1000	9.58	10.0	-4.2	20.0
m-Xylene & p-Xylene	Ave	2.214	2.187	0.1000	9.88	10.0	-1.2	20.0
o-Xylene	Ave	2.110	2.081	0.3000	9.86	10.0	-1.4	20.0
Styrene	Ave	3.571	3.590	0.3000	10.1	10.0	0.5	20.0
Bromoform	Ave	0.5456	0.4655	0.1000	8.53	10.0	-14.7	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.637	0.0100	9.96	10.0	-0.4	20.0
Isopropylbenzene	Ave	5.150	5.334	0.1000	10.4	10.0	3.6	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.491	0.3000	9.70	10.0	-3.0	20.0
Bromobenzene	Ave	0.9704	0.9163	0.0100	9.44	10.0	-5.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2855	0.0100	9.76	10.0	-2.4	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3812	0.0100	9.52	10.0	-4.8	20.0
N-Propylbenzene	Ave	1.109	1.062	0.0100	9.57	10.0	-4.3	20.0
2-Chlorotoluene	Ave	0.9585	0.9273	0.0100	9.67	10.0	-3.3	20.0
3-Chlorotoluene	Ave	1.043	1.023	0.0100	9.81	10.0	-1.9	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.156	0.0100	9.95	10.0	-0.5	20.0
4-Chlorotoluene	Ave	1.035	0.995	0.0100	9.61	10.0	-3.9	20.0
tert-Butylbenzene	Ave	2.653	2.520	0.0100	9.50	10.0	-5.0	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.119	0.0100	9.67	10.0	-3.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7679	0.0100	9.50	10.0	-5.0	20.0
sec-Butylbenzene	Ave	3.701	3.745	0.0100	10.1	10.0	1.2	20.0
1,3-Dichlorobenzene	Ave	1.734	1.647	0.6000	9.50	10.0	-5.0	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219617/2 Calibration Date: 08/10/2017 00:22  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50810D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	3.098	0.0100	10.1	10.0	0.5	20.0
1,4-Dichlorobenzene	Ave	1.780	1.688	0.5000	9.48	10.0	-5.2	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7217	0.0100	9.59	10.0	-4.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.7888	0.0100	9.71	10.0	-2.9	20.0
n-Butylbenzene	Ave	2.514	2.472	0.0100	9.83	10.0	-1.7	20.0
1,2-Dichlorobenzene	Ave	1.653	1.577	0.4000	9.54	10.0	-4.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1668	0.0500	9.09	10.0	-9.1	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.067	0.0100	30.5	30.0	1.8	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.088	0.0100	20.1	20.0	0.4	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.6956	0.2000	9.20	10.0	-8.0	20.0
Hexachlorobutadiene	Ave	0.2767	0.2876	0.0100	10.4	10.0	3.9	20.0
Naphthalene	Ave	2.576	2.306	0.0100	8.95	10.0	-10.5	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.6663	0.0100	9.64	10.0	-3.6	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.3164	0.0100	9.63	10.0	-3.7	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.3287	0.0100	10.8	10.0	7.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2293		9.53	10.0	-4.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2818		9.60	10.0	-4.0	20.0
Toluene-d8 (Surr)	Ave	3.979	4.064		10.2	10.0	2.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.472		10.2	10.0	2.4	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D02.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 10-Aug-2017 00:22:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-002  
 Misc. Info.: CCVIS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub29  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 01:15:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.376	4.376	0.000	0	227089	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.333	0.000	97	537277	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.423	10.423	0.000	85	121737	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	93	168013	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	93	123197	50.0	47.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	151378	50.0	48.0	
\$ 7 Toluene-d8 (Surr)	98	8.975	8.975	0.000	92	494762	50.0	51.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.609	0.000	85	179147	50.0	51.2	
11 Dichlorodifluoromethane	85	1.681	1.681	0.000	99	163130	50.0	52.2	
12 Chloromethane	50	1.827	1.827	0.000	99	165394	50.0	52.7	
13 Vinyl chloride	62	1.967	1.967	0.000	98	165278	50.0	51.9	
14 Butadiene	39	1.991	1.991	0.000	95	149074	50.0	51.5	
15 Bromomethane	94	2.283	2.283	0.000	91	80526	50.0	53.5	
16 Chloroethane	64	2.448	2.448	0.000	99	94346	50.0	53.9	
17 Dichlorofluoromethane	67	2.734	2.734	0.000	97	255490	50.0	57.7	
18 Trichlorofluoromethane	101	2.788	2.788	0.000	96	212546	50.0	54.3	
20 Ethyl ether	59	3.111	3.111	0.000	89	126347	50.0	49.6	
21 Acrolein	56	3.299	3.299	0.000	98	57967	150.0	90.3	
22 1,1-Dichloroethene	96	3.409	3.409	0.000	98	128189	50.0	48.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.494	3.494	0.000	92	142878	50.0	49.5	
24 Acetone	43	3.524	3.524	0.000	100	169219	100.0	120.4	
25 Iodomethane	142	3.622	3.622	0.000	96	195468	50.0	47.3	
26 Carbon disulfide	76	3.713	3.713	0.000	99	206729	50.0	35.8	
28 3-Chloro-1-propene	76	4.005	4.005	0.000	91	73706	50.0	43.4	
30 Methyl acetate	43	4.029	4.029	0.000	97	284479	100.0	102.2	
31 Methylene Chloride	84	4.218	4.218	0.000	84	157121	50.0	48.1	
32 2-Methyl-2-propanol	59	4.504	4.504	0.000	91	126562	500.0	471.3	
33 Acrylonitrile	53	4.607	4.607	0.000	99	648317	500.0	479.2	
34 trans-1,2-Dichloroethene	96	4.632	4.632	0.000	98	148201	50.0	49.4	
35 Methyl tert-butyl ether	73	4.650	4.650	0.000	96	374737	50.0	46.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.051	5.051	0.000	95	168697	50.0	43.9	
37 1,1-Dichloroethane	63	5.258	5.258	0.000	96	247821	50.0	47.6	
38 Vinyl acetate	43	5.319	5.319	0.000	98	181562	50.0	34.3	
44 2,2-Dichloropropane	97	6.000	6.000	0.000	57	33265	50.0	50.1	
45 cis-1,2-Dichloroethene	96	6.000	6.000	0.000	81	162330	50.0	47.4	
46 2-Butanone (MEK)	43	6.025	6.025	0.000	98	200771	100.0	100.4	
49 Chlorobromomethane	128	6.286	6.286	0.000	95	71138	50.0	46.7	
51 Tetrahydrofuran	42	6.305	6.305	0.000	83	99881	100.0	85.8	
52 Chloroform	83	6.432	6.432	0.000	93	248380	50.0	47.7	
53 1,1,1-Trichloroethane	97	6.591	6.591	0.000	98	190375	50.0	48.3	
54 Cyclohexane	56	6.657	6.657	0.000	87	221376	50.0	45.5	
56 Carbon tetrachloride	117	6.761	6.761	0.000	97	155427	50.0	47.4	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	96	202438	50.0	47.6	
58 Benzene	78	6.992	6.992	0.000	97	637992	50.0	48.8	
57 Isobutyl alcohol	41	6.992	6.992	0.000	72	108926	1250.0	1018.9	
59 1,2-Dichloroethane	62	7.071	7.071	0.000	98	185639	50.0	48.7	
62 n-Heptane	43	7.351	7.351	0.000	87	156546	50.0	50.9	
64 Trichloroethene	130	7.722	7.722	0.000	98	152262	50.0	46.3	
66 Methylcyclohexane	83	7.953	7.953	0.000	86	224341	50.0	45.1	
67 1,2-Dichloropropane	63	7.990	7.990	0.000	92	142802	50.0	46.9	
70 1,4-Dioxane	88	8.075	8.075	0.000	40	28963	1000.0	936.3	
68 Dibromomethane	93	8.081	8.081	0.000	95	79582	50.0	44.6	
71 Dichlorobromomethane	83	8.276	8.276	0.000	99	152229	50.0	43.5	
73 2-Chloroethyl vinyl ether	63	8.574	8.574	0.000	94	172557	100.0	78.8	
74 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	95	190174	50.0	44.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.872	8.872	0.000	96	281636	100.0	90.2	
76 Toluene	91	9.048	9.048	0.000	99	625875	50.0	51.6	
77 trans-1,3-Dichloropropene	75	9.292	9.292	0.000	92	151978	50.0	46.0	
78 Ethyl methacrylate	69	9.352	9.352	0.000	87	184002	50.0	46.2	
79 1,1,2-Trichloroethane	97	9.486	9.486	0.000	91	126048	50.0	49.8	
80 Tetrachloroethene	164	9.559	9.559	0.000	96	117973	50.0	51.0	
81 1,3-Dichloropropane	76	9.644	9.644	0.000	90	221663	50.0	47.4	
82 2-Hexanone	43	9.705	9.705	0.000	94	224402	100.0	93.7	
84 Chlorodibromomethane	129	9.857	9.857	0.000	89	98509	50.0	46.1	
85 Ethylene Dibromide	107	9.973	9.973	0.000	97	125698	50.0	48.5	
86 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	86	212053	50.0	50.7	
87 Chlorobenzene	112	10.460	10.460	0.000	94	388827	50.0	49.2	
88 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	96	197883	50.0	51.3	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.551	0.000	91	122796	50.0	48.9	
90 Ethylbenzene	106	10.557	10.557	0.000	98	211416	50.0	47.9	
91 m-Xylene & p-Xylene	106	10.691	10.691	0.000	0	266187	50.0	49.4	
92 o-Xylene	106	11.068	11.068	0.000	96	253306	50.0	49.3	
93 Styrene	104	11.092	11.092	0.000	95	437071	50.0	50.3	
94 Bromoform	173	11.275	11.275	0.000	95	56671	50.0	42.7	
96 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	96	199261	50.0	49.8	
97 Isopropylbenzene	105	11.439	11.439	0.000	96	649367	50.0	51.8	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.749	0.000	83	181490	50.0	48.5	
100 Bromobenzene	156	11.749	11.749	0.000	93	153949	50.0	47.2	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.786	0.000	81	47959	50.0	48.8	
101 1,2,3-Trichloropropane	110	11.810	11.810	0.000	84	64043	50.0	47.6	
103 N-Propylbenzene	120	11.853	11.853	0.000	98	178347	50.0	47.9	
104 2-Chlorotoluene	126	11.938	11.938	0.000	97	155802	50.0	48.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.005	12.005	0.000	96	171799	50.0	49.0	
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	95	530331	50.0	49.7	
107 4-Chlorotoluene	126	12.066	12.066	0.000	96	167207	50.0	48.1	
108 tert-Butylbenzene	119	12.352	12.352	0.000	93	423342	50.0	47.5	
110 1,2,4-Trimethylbenzene	105	12.406	12.406	0.000	97	524019	50.0	48.3	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	96	129017	50.0	47.5	
112 sec-Butylbenzene	105	12.577	12.577	0.000	94	629158	50.0	50.6	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	97	276786	50.0	47.5	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	96	520584	50.0	50.3	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	95	283602	50.0	47.4	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.826	0.000	95	121253	50.0	48.0	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.869	0.000	0	132524	50.0	48.5	
120 n-Butylbenzene	91	13.136	13.136	0.000	98	415389	50.0	49.2	
121 1,2-Dichlorobenzene	146	13.149	13.149	0.000	96	265036	50.0	47.7	
122 1,2-Dibromo-3-Chloropropan	75	13.939	13.939	0.000	78	28018	50.0	45.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.085	0.000	0	537773	150.0	152.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.505	14.505	0.000	0	365645	100.0	100.4	
126 1,2,4-Trichlorobenzene	180	14.767	14.767	0.000	94	116869	50.0	46.0	
127 Hexachlorobutadiene	225	14.913	14.913	0.000	98	48316	50.0	52.0	
128 Naphthalene	128	15.034	15.034	0.000	97	387521	50.0	44.8	
129 1,2,3-Trichlorobenzene	180	15.259	15.259	0.000	96	111949	50.0	48.2	
131 2,4,5-Trichlorotoluene	159	16.026	16.026	0.000	0	53156	50.0	48.2	
130 2,3,6-Trichlorotoluene	159	16.123	16.123	0.000	97	55231	50.0	53.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.8	
S 133 Xylenes, Total	106				0		100.0	98.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D02.D

Injection Date: 10-Aug-2017 00:22:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

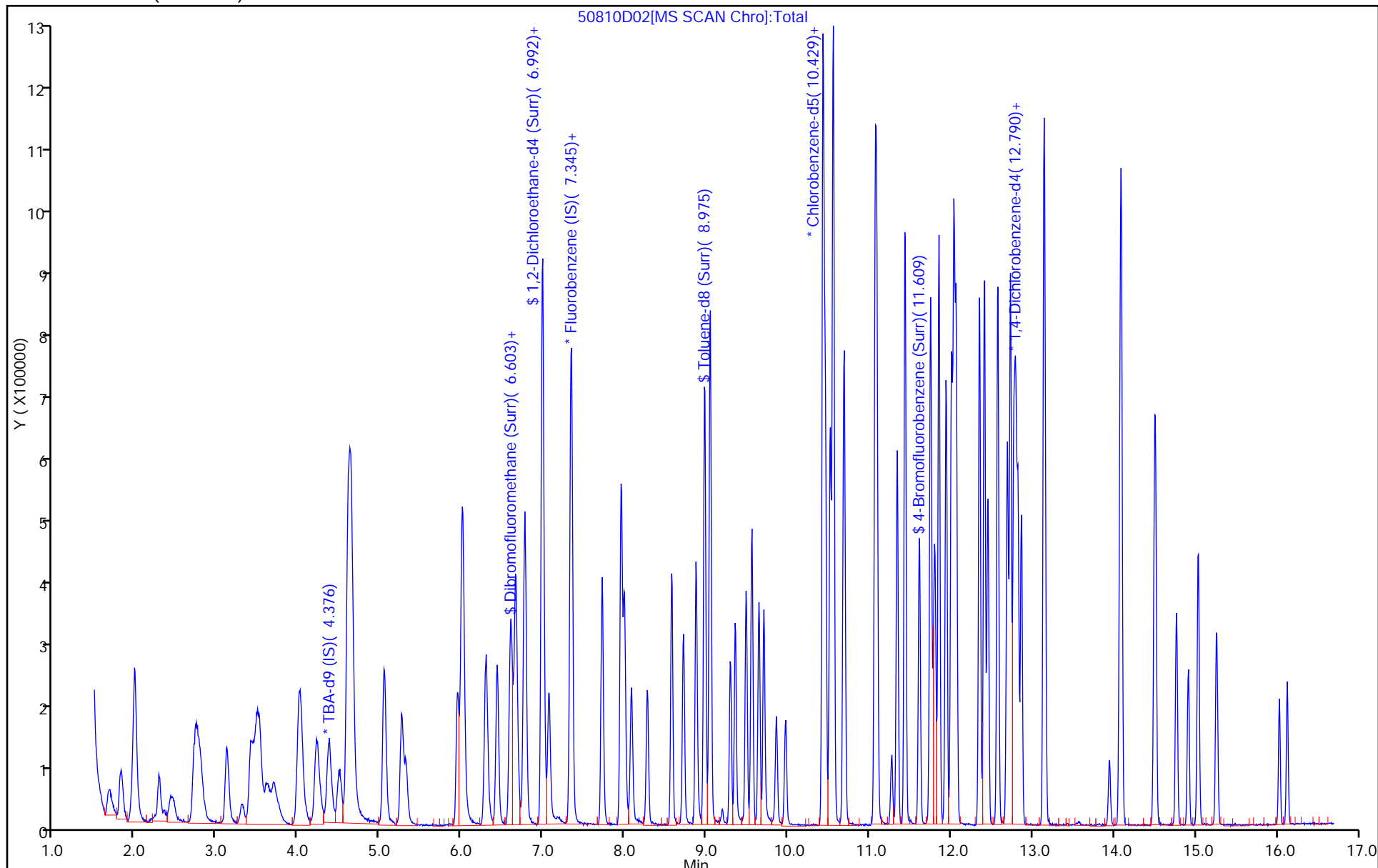
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219759/2 Calibration Date: 08/11/2017 01:51  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50811D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.3353	0.1000	11.5	10.0	15.3	20.0
Chloromethane	Ave	0.2922	0.3168	0.1000	10.8	10.0	8.4	20.0
Vinyl chloride	Ave	0.2965	0.3362	0.1000	11.3	10.0	13.4	20.0
1,3-Butadiene	Ave	0.2694	0.3064	0.0100	11.4	10.0	13.8	20.0
Bromomethane	Ave	0.1402	0.1748	0.0500	12.5	10.0	24.7*	20.0
Chloroethane	Ave	0.1630	0.1867	0.0500	11.5	10.0	14.5	20.0
Trichlorofluoromethane	Ave	0.3643	0.4317	0.1000	11.8	10.0	18.5	20.0
Ethyl ether	Ave	0.2370	0.2430	0.0100	10.3	10.0	2.5	20.0
Acrolein	Ave	0.0597	0.0558	0.0100	28.0	30.0	-6.6	20.0
1,1-Dichloroethene	Ave	0.2448	0.2590	0.1000	10.6	10.0	5.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2865	0.1000	10.7	10.0	6.7	20.0
Acetone	Ave	0.1308	0.1033	0.0500	15.8	20.0	-21.0*	20.0
Iodomethane	Ave	0.3845	0.3878	0.0100	10.1	10.0	0.9	20.0
Carbon disulfide	Ave	0.5372	0.4373	0.1000	8.14	10.0	-18.6	20.0
Allyl chloride	Ave	0.1582	0.1487	0.0100	9.40	10.0	-6.0	20.0
Methyl acetate	Ave	0.2589	0.2798	0.1000	21.6	20.0	8.1	20.0
Methylene Chloride	Lin2		0.3046	0.1000	10.0	10.0	0.5	20.0
tert-Butyl alcohol	Ave	1.183	1.029	0.0100	87.0	100	-13.0	20.0
Acrylonitrile	Ave	0.1259	0.1259	0.0100	100	100	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.3024	0.1000	10.8	10.0	8.4	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7398	0.1000	9.89	10.0	-1.1	20.0
Hexane	Ave	0.3580	0.3647	0.0100	10.2	10.0	1.9	20.0
1,1-Dichloroethane	Ave	0.4850	0.5015	0.2000	10.3	10.0	3.4	20.0
Vinyl acetate	Ave	0.4932	0.3795	0.0100	7.70	10.0	-23.0*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0634	0.0100	10.3	10.0	2.8	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3208	0.1000	10.1	10.0	0.5	20.0
2-Butanone (MEK)	Ave	0.1861	0.1508	0.0500	16.2	20.0	-19.0	20.0
Bromochloromethane	Ave	0.1418	0.1405	0.0100	9.91	10.0	-0.9	20.0
Tetrahydrofuran	Ave	0.1084	0.1011	0.0100	18.7	20.0	-6.7	20.0
Chloroform	Ave	0.4843	0.5033	0.2000	10.4	10.0	3.9	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.4012	0.1000	10.9	10.0	9.5	20.0
Cyclohexane	Ave	0.4524	0.4714	0.1000	10.4	10.0	4.2	20.0
Carbon tetrachloride	Ave	0.3051	0.3251	0.1000	10.7	10.0	6.6	20.0
1,1-Dichloropropene	Ave	0.3961	0.4210	0.0100	10.6	10.0	6.3	20.0
Isobutyl alcohol	Ave	0.0099	0.0088*	0.0100	221	250	-11.5	20.0
Benzene	Ave	1.216	1.265	0.5000	10.4	10.0	4.0	20.0
1,2-Dichloroethane	Ave	0.3544	0.3552	0.1000	10.0	10.0	0.2	20.0
n-Heptane	Ave	0.2863	0.3051	0.0100	10.7	10.0	6.6	20.0
Trichloroethene	Ave	0.3059	0.3150	0.2000	10.3	10.0	3.0	20.0
Methylcyclohexane	Ave	0.4626	0.4842	0.1000	10.5	10.0	4.7	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219759/2 Calibration Date: 08/11/2017 01:51  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50811D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2835	0.1000	10.0	10.0	0.1	20.0
1,4-Dioxane	Ave	0.0029	0.0028*	0.0100	196	200	-2.0	20.0
Dibromomethane	Ave	0.1659	0.1517	0.0100	9.14	10.0	-8.6	20.0
Bromodichloromethane	Ave	0.3256	0.2971	0.2000	9.13	10.0	-8.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1760	0.0100	17.3	20.0	-13.6	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3772	0.2000	9.54	10.0	-4.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.095	0.1000	17.1	20.0	-14.6	20.0
Toluene	Ave	4.986	5.371	0.4000	10.8	10.0	7.7	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.278	0.1000	9.42	10.0	-5.8	20.0
Ethyl methacrylate	Ave	1.636	1.539	0.0100	9.41	10.0	-5.9	20.0
1,1,2-Trichloroethane	Ave	1.039	1.052	0.1000	10.1	10.0	1.2	20.0
Tetrachloroethene	Ave	0.9508	1.005	0.2000	10.6	10.0	5.7	20.0
1,3-Dichloropropane	Ave	1.920	1.893	0.0100	9.86	10.0	-1.4	20.0
2-Hexanone	Ave	0.9836	0.8527	0.1000	17.3	20.0	-13.3	20.0
Dibromochloromethane	Ave	0.8779	0.8020	0.1000	9.13	10.0	-8.7	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.036	0.1000	9.72	10.0	-2.8	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.973	0.0100	11.5	10.0	14.8	20.0
Chlorobenzene	Ave	3.246	3.322	0.5000	10.2	10.0	2.4	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.895	0.0100	11.9	10.0	19.5	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.037	0.0100	10.1	10.0	0.5	20.0
Ethylbenzene	Ave	1.812	1.865	0.1000	10.3	10.0	2.9	20.0
m-Xylene & p-Xylene	Ave	2.214	2.320	0.1000	10.5	10.0	4.8	20.0
o-Xylene	Ave	2.110	2.223	0.3000	10.5	10.0	5.4	20.0
Styrene	Ave	3.571	3.643	0.3000	10.2	10.0	2.0	20.0
Bromoform	Ave	0.5456	0.4737	0.1000	8.68	10.0	-13.2	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.976	0.0100	12.0	10.0	20.2*	20.0
Isopropylbenzene	Ave	5.150	5.642	0.1000	11.0	10.0	9.5	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.539	0.3000	10.0	10.0	0.1	20.0
Bromobenzene	Ave	0.9704	0.9032	0.0100	9.31	10.0	-6.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2485	0.0100	8.49	10.0	-15.1	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3771	0.0100	9.41	10.0	-5.9	20.0
N-Propylbenzene	Ave	1.109	1.108	0.0100	9.99	10.0	-0.0	20.0
2-Chlorotoluene	Ave	0.9585	0.9301	0.0100	9.70	10.0	-3.0	20.0
3-Chlorotoluene	Ave	1.043	1.137	0.0100	10.9	10.0	9.0	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.273	0.0100	10.3	10.0	3.1	20.0
4-Chlorotoluene	Ave	1.035	1.007	0.0100	9.73	10.0	-2.7	20.0
tert-Butylbenzene	Ave	2.653	2.664	0.0100	10.0	10.0	0.4	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.224	0.0100	10.0	10.0	-0.0	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.8999	0.0100	11.1	10.0	11.4	20.0
sec-Butylbenzene	Ave	3.701	3.878	0.0100	10.5	10.0	4.8	20.0
1,3-Dichlorobenzene	Ave	1.734	1.660	0.6000	9.57	10.0	-4.3	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-219759/2 Calibration Date: 08/11/2017 01:51  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50811D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	3.218	0.0100	10.4	10.0	4.4	20.0
1,4-Dichlorobenzene	Ave	1.780	1.689	0.5000	9.49	10.0	-5.1	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7667	0.0100	10.2	10.0	1.9	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.9249	0.0100	11.4	10.0	13.8	20.0
n-Butylbenzene	Ave	2.514	2.599	0.0100	10.3	10.0	3.4	20.0
1,2-Dichlorobenzene	Ave	1.653	1.558	0.4000	9.43	10.0	-5.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1598	0.0500	8.71	10.0	-12.9	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.186	0.0100	33.9	30.0	13.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.187	0.0100	21.9	20.0	9.5	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.7300	0.2000	9.65	10.0	-3.5	20.0
Hexachlorobutadiene	Ave	0.2767	0.2896	0.0100	10.5	10.0	4.7	20.0
Naphthalene	Ave	2.576	2.410	0.0100	9.36	10.0	-6.4	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.6825	0.0100	9.88	10.0	-1.2	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.3842	0.0100	11.7	10.0	17.0	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.3661	0.0100	12.0	10.0	19.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2338		9.72	10.0	-2.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2859		9.74	10.0	-2.6	20.0
Toluene-d8 (Surr)	Ave	3.979	4.196		10.5	10.0	5.4	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.487		10.3	10.0	3.5	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D02.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 11-Aug-2017 01:51:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-002  
 Misc. Info.: CCVIS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub29  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:20 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf

Date: 11-Aug-2017 02:34:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.365	0.000	0	248428	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.334	0.000	97	527374	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	85	124765	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.766	0.000	93	172549	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.616	0.000	94	123282	50.0	48.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.987	0.000	0	150788	50.0	48.7	
\$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	523451	50.0	52.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	85	185572	50.0	51.7	
11 Dichlorodifluoromethane	85	1.676	1.676	0.000	98	176823	50.0	57.7	
12 Chloromethane	50	1.822	1.822	0.000	100	167094	50.0	54.2	
13 Vinyl chloride	62	1.968	1.968	0.000	97	177301	50.0	56.7	
14 Butadiene	39	1.992	1.992	0.000	94	161603	50.0	56.9	
15 Bromomethane	94	2.327	2.327	0.000	92	92205	50.0	62.4	
16 Chloroethane	64	2.449	2.449	0.000	99	98433	50.0	57.3	
17 Dichlorofluoromethane	67	2.741	2.741	0.000	97	262260	50.0	60.3	
18 Trichlorofluoromethane	101	2.795	2.795	0.000	94	227677	50.0	59.2	
20 Ethyl ether	59	3.124	3.124	0.000	89	128135	50.0	51.3	
21 Acrolein	56	3.313	3.313	0.000	98	88222	150.0	140.1	
22 1,1-Dichloroethene	96	3.410	3.410	0.000	96	136605	50.0	52.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.495	3.495	0.000	92	151094	50.0	53.3	
24 Acetone	43	3.532	3.532	0.000	100	108975	100.0	79.0	
25 Iodomethane	142	3.617	3.617	0.000	94	204504	50.0	50.4	
26 Carbon disulfide	76	3.708	3.708	0.000	98	230617	50.0	40.7	
28 3-Chloro-1-propene	76	4.000	4.000	0.000	93	78426	50.0	47.0	
30 Methyl acetate	43	4.024	4.024	0.000	97	295151	100.0	108.1	
31 Methylene Chloride	84	4.219	4.219	0.000	90	160616	50.0	50.2	
32 2-Methyl-2-propanol	59	4.493	4.493	0.000	92	127822	500.0	435.1	
33 Acrylonitrile	53	4.602	4.602	0.000	98	664119	500.0	500.1	
34 trans-1,2-Dichloroethene	96	4.633	4.633	0.000	98	159490	50.0	54.2	
35 Methyl tert-butyl ether	73	4.645	4.645	0.000	96	390171	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.046	5.046	0.000	94	192343	50.0	50.9	
37 1,1-Dichloroethane	63	5.265	5.265	0.000	96	264478	50.0	51.7	
38 Vinyl acetate	43	5.320	5.320	0.000	97	200148	50.0	38.5	
44 2,2-Dichloropropane	97	6.001	6.001	0.000	60	33459	50.0	51.4	
45 cis-1,2-Dichloroethene	96	6.008	6.008	0.000	79	169158	50.0	50.3	
46 2-Butanone (MEK)	43	6.020	6.020	0.000	98	159033	100.0	81.0	
49 Chlorobromomethane	128	6.293	6.293	0.000	92	74110	50.0	49.6	
51 Tetrahydrofuran	42	6.306	6.306	0.000	88	106607	100.0	93.3	
52 Chloroform	83	6.433	6.433	0.000	92	265413	50.0	52.0	
53 1,1,1-Trichloroethane	97	6.598	6.598	0.000	98	211587	50.0	54.7	
54 Cyclohexane	56	6.665	6.665	0.000	87	248623	50.0	52.1	
56 Carbon tetrachloride	117	6.762	6.762	0.000	95	171451	50.0	53.3	
55 1,1-Dichloropropene	75	6.774	6.774	0.000	97	222012	50.0	53.1	
57 Isobutyl alcohol	41	6.981	6.981	0.000	81	116148	1250.0	1106.8	
58 Benzene	78	6.993	6.993	0.000	97	666993	50.0	52.0	
59 1,2-Dichloroethane	62	7.066	7.066	0.000	97	187312	50.0	50.1	
62 n-Heptane	43	7.352	7.352	0.000	84	160883	50.0	53.3	
64 Trichloroethene	130	7.723	7.723	0.000	97	166116	50.0	51.5	
66 Methylcyclohexane	83	7.954	7.954	0.000	87	255346	50.0	52.3	
67 1,2-Dichloropropane	63	7.997	7.997	0.000	94	149490	50.0	50.1	
70 1,4-Dioxane	88	8.070	8.070	0.000	40	29742	1000.0	979.5	
68 Dibromomethane	93	8.082	8.082	0.000	94	79985	50.0	45.7	
71 Dichlorobromomethane	83	8.277	8.277	0.000	100	156697	50.0	45.6	
73 2-Chloroethyl vinyl ether	63	8.575	8.575	0.000	93	185616	100.0	86.4	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	95	198927	50.0	47.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.873	8.873	0.000	95	273206	100.0	85.4	
76 Toluene	91	9.049	9.049	0.000	99	670053	50.0	53.9	
77 trans-1,3-Dichloropropene	75	9.293	9.293	0.000	94	159455	50.0	47.1	
78 Ethyl methacrylate	69	9.353	9.353	0.000	88	192060	50.0	47.0	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	91	131199	50.0	50.6	
80 Tetrachloroethene	164	9.560	9.560	0.000	97	125376	50.0	52.8	
81 1,3-Dichloropropane	76	9.645	9.645	0.000	89	236145	50.0	49.3	
82 2-Hexanone	43	9.706	9.706	0.000	96	212770	100.0	86.7	
84 Chlorodibromomethane	129	9.858	9.858	0.000	88	100060	50.0	45.7	
85 Ethylene Dibromide	107	9.974	9.974	0.000	95	129197	50.0	48.6	
86 3-Chlorobenzotrifluoride	180	10.430	10.430	0.000	90	246128	50.0	57.4	
87 Chlorobenzene	112	10.461	10.461	0.000	94	414495	50.0	51.2	
88 4-Chlorobenzotrifluoride	180	10.521	10.521	0.000	96	236379	50.0	59.7	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.552	0.000	91	129419	50.0	50.3	
90 Ethylbenzene	106	10.558	10.558	0.000	98	232708	50.0	51.5	
91 m-Xylene & p-Xylene	106	10.686	10.686	0.000	0	289474	50.0	52.4	
92 o-Xylene	106	11.069	11.069	0.000	96	277338	50.0	52.7	
93 Styrene	104	11.087	11.087	0.000	94	454518	50.0	51.0	
94 Bromoform	173	11.270	11.270	0.000	96	59096	50.0	43.4	
96 2-Chlorobenzotrifluoride	180	11.337	11.337	0.000	97	246492	50.0	60.1	
97 Isopropylbenzene	105	11.434	11.434	0.000	96	703866	50.0	54.8	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.750	0.000	83	192058	50.0	50.1	
100 Bromobenzene	156	11.750	11.750	0.000	94	155847	50.0	46.5	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.787	0.000	76	42873	50.0	42.5	
101 1,2,3-Trichloropropane	110	11.805	11.805	0.000	84	65061	50.0	47.1	
103 N-Propylbenzene	120	11.854	11.854	0.000	99	191197	50.0	50.0	
104 2-Chlorotoluene	126	11.939	11.939	0.000	96	160490	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.006	12.006	0.000	97	196130	50.0	54.5	
106 1,3,5-Trimethylbenzene	105	12.036	12.036	0.000	95	564737	50.0	51.6	
107 4-Chlorotoluene	126	12.061	12.061	0.000	96	173829	50.0	48.7	
108 tert-Butylbenzene	119	12.353	12.353	0.000	93	459653	50.0	50.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	556299	50.0	50.0	
111 1,2-dichloro-4-(trifluorom	214	12.450	12.450	0.000	96	155279	50.0	55.7	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	669216	50.0	52.4	
113 1,3-Dichlorobenzene	146	12.693	12.693	0.000	97	286418	50.0	47.9	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	97	555315	50.0	52.2	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	291493	50.0	47.4	
116 2,4-Dichloro-1-(trifluorom	214	12.821	12.821	0.000	95	132295	50.0	51.0	
118 2,5-Dichlorobenzotrifluori	214	12.864	12.864	0.000	0	159589	50.0	56.9	
120 n-Butylbenzene	91	13.137	13.137	0.000	98	448532	50.0	51.7	
121 1,2-Dichlorobenzene	146	13.150	13.150	0.000	96	268807	50.0	47.1	
122 1,2-Dibromo-3-Chloropropan	75	13.940	13.940	0.000	82	27571	50.0	43.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.086	14.086	0.000	0	614022	150.0	169.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.500	14.500	0.000	0	409796	100.0	109.5	
126 1,2,4-Trichlorobenzene	180	14.762	14.762	0.000	94	125960	50.0	48.3	
127 Hexachlorobutadiene	225	14.914	14.914	0.000	97	49970	50.0	52.3	
128 Naphthalene	128	15.029	15.029	0.000	97	415835	50.0	46.8	
129 1,2,3-Trichlorobenzene	180	15.260	15.260	0.000	96	117767	50.0	49.4	
131 2,4,5-Trichlorotoluene	159	16.027	16.027	0.000	0	66297	50.0	58.5	
130 2,3,6-Trichlorotoluene	159	16.124	16.124	0.000	96	63177	50.0	59.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	104.5	
S 133 Xylenes, Total	106				0		100.0	105.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	94.8	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00258	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D02.D

Injection Date: 11-Aug-2017 01:51:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

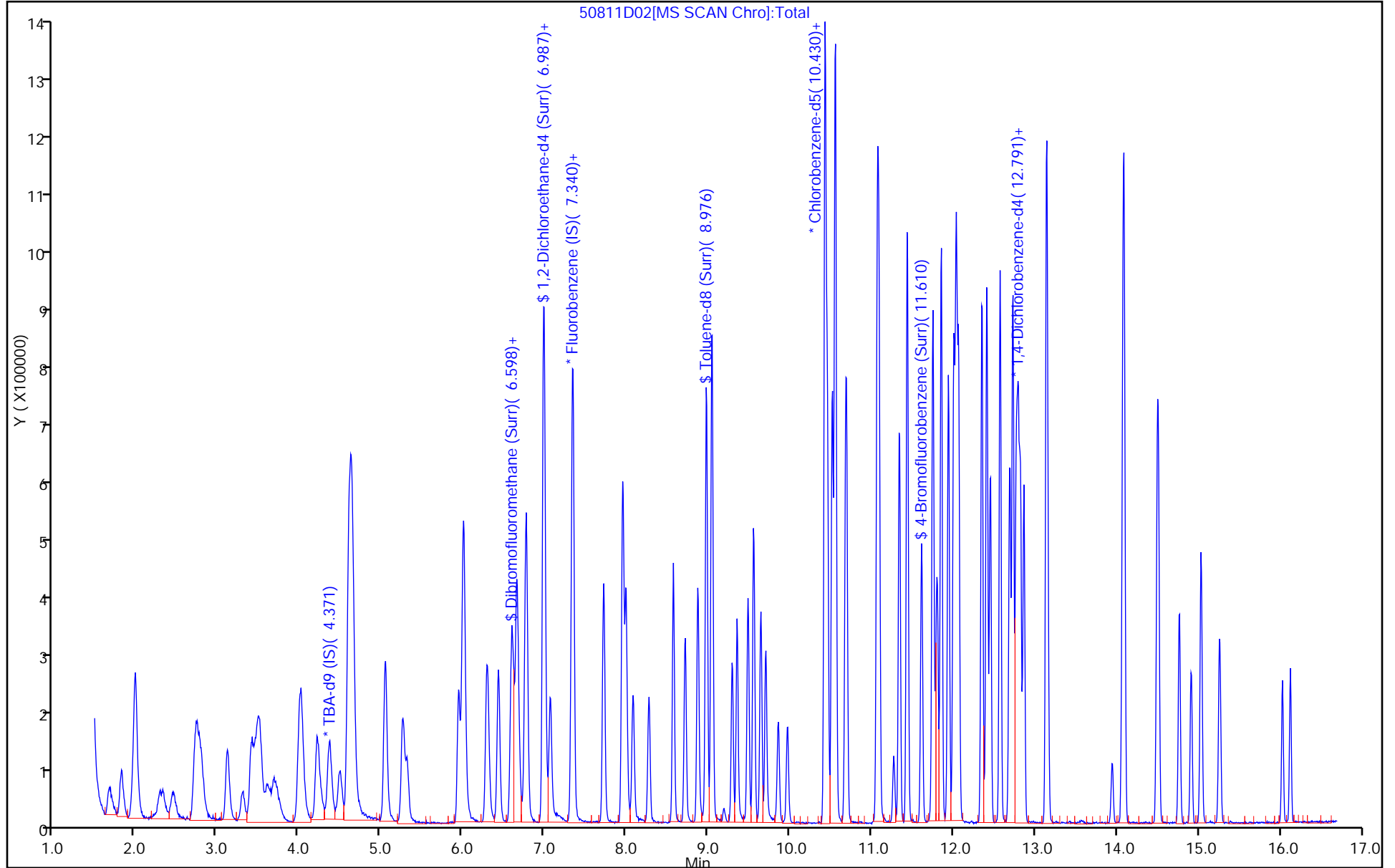
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-220320/2 Calibration Date: 08/16/2017 23:53  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50816D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.2987	0.1000	10.3	10.0	2.8	20.0
Chloromethane	Ave	0.2922	0.2719	0.1000	9.30	10.0	-7.0	20.0
Vinyl chloride	Ave	0.2965	0.3004	0.1000	10.1	10.0	1.3	20.0
1,3-Butadiene	Ave	0.2694	0.2437	0.0100	9.05	10.0	-9.5	20.0
Bromomethane	Ave	0.1402	0.1553	0.0500	11.1	10.0	10.8	20.0
Chloroethane	Ave	0.1630	0.1618	0.0500	9.92	10.0	-0.8	20.0
Trichlorofluoromethane	Ave	0.3643	0.3797	0.1000	10.4	10.0	4.2	20.0
Ethyl ether	Ave	0.2370	0.2349	0.0100	9.91	10.0	-0.9	20.0
Acrolein	Ave	0.0597	0.0491	0.0100	24.7	30.0	-17.8	20.0
1,1-Dichloroethene	Ave	0.2448	0.2403	0.1000	9.82	10.0	-1.8	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2586	0.1000	9.63	10.0	-3.7	20.0
Acetone	Ave	0.1308	0.1010	0.0500	15.4	20.0	-22.8*	20.0
Iodomethane	Ave	0.3845	0.3598	0.0100	9.36	10.0	-6.4	20.0
Carbon disulfide	Ave	0.5372	0.4784	0.1000	8.90	10.0	-11.0	20.0
Allyl chloride	Ave	0.1582	0.1455	0.0100	9.20	10.0	-8.0	20.0
Methyl acetate	Ave	0.2589	0.2543	0.1000	19.6	20.0	-1.8	20.0
Methylene Chloride	Lin2		0.2902	0.1000	9.54	10.0	-4.6	20.0
tert-Butyl alcohol	Ave	1.183	1.050	0.0100	88.8	100	-11.2	20.0
Acrylonitrile	Ave	0.1259	0.1122	0.0100	89.1	100	-10.9	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2735	0.1000	9.80	10.0	-2.0	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6982	0.1000	9.34	10.0	-6.6	20.0
Hexane	Ave	0.3580	0.3213	0.0100	8.97	10.0	-10.3	20.0
1,1-Dichloroethane	Ave	0.4850	0.4552	0.2000	9.39	10.0	-6.1	20.0
Vinyl acetate	Ave	0.4932	0.2999	0.0100	6.08	10.0	-39.2*	20.0
2,2-Dichloropropane	Ave	0.0617	0.0561	0.0100	9.09	10.0	-9.1	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2940	0.1000	9.21	10.0	-7.9	20.0
2-Butanone (MEK)	Ave	0.1861	0.1365	0.0500	14.7	20.0	-26.7*	20.0
Bromochloromethane	Ave	0.1418	0.1253	0.0100	8.84	10.0	-11.6	20.0
Tetrahydrofuran	Ave	0.1084	0.0889	0.0100	16.4	20.0	-18.0	20.0
Chloroform	Ave	0.4843	0.4606	0.2000	9.51	10.0	-4.9	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3574	0.1000	9.75	10.0	-2.5	20.0
Cyclohexane	Ave	0.4524	0.4117	0.1000	9.10	10.0	-9.0	20.0
Carbon tetrachloride	Ave	0.3051	0.2946	0.1000	9.66	10.0	-3.4	20.0
1,1-Dichloropropene	Ave	0.3961	0.3716	0.0100	9.38	10.0	-6.2	20.0
Isobutyl alcohol	Ave	0.0099	0.0078*	0.0100	196	250	-21.7*	20.0
Benzene	Ave	1.216	1.157	0.5000	9.51	10.0	-4.9	20.0
1,2-Dichloroethane	Ave	0.3544	0.3331	0.1000	9.40	10.0	-6.0	20.0
n-Heptane	Ave	0.2863	0.2685	0.0100	9.38	10.0	-6.2	20.0
Trichloroethene	Ave	0.3059	0.2720	0.2000	8.89	10.0	-11.1	20.0
Methylcyclohexane	Ave	0.4626	0.4128	0.1000	8.92	10.0	-10.8	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-220320/2 Calibration Date: 08/16/2017 23:53  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50816D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2537	0.1000	8.96	10.0	-10.4	20.0
1,4-Dioxane	Ave	0.0029	0.0025*	0.0100	174	200	-12.9	20.0
Dibromomethane	Ave	0.1659	0.1442	0.0100	8.70	10.0	-13.0	20.0
Bromodichloromethane	Ave	0.3256	0.2911	0.2000	8.94	10.0	-10.6	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1514	0.0100	14.9	20.0	-25.7*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3504	0.2000	8.86	10.0	-11.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	0.9930	0.1000	15.5	20.0	-22.6*	20.0
Toluene	Ave	4.986	5.058	0.4000	10.1	10.0	1.4	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.286	0.1000	9.48	10.0	-5.2	20.0
Ethyl methacrylate	Ave	1.636	1.367	0.0100	8.36	10.0	-16.4	20.0
1,1,2-Trichloroethane	Ave	1.039	0.9899	0.1000	9.53	10.0	-4.7	20.0
Tetrachloroethene	Ave	0.9508	0.9670	0.2000	10.2	10.0	1.7	20.0
1,3-Dichloropropane	Ave	1.920	1.724	0.0100	8.98	10.0	-10.2	20.0
2-Hexanone	Ave	0.9836	0.6869	0.1000	14.0	20.0	-30.2*	20.0
Dibromochloromethane	Ave	0.8779	0.8091	0.1000	9.22	10.0	-7.8	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9661	0.1000	9.07	10.0	-9.3	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.757	0.0100	10.2	10.0	2.2	20.0
Chlorobenzene	Ave	3.246	3.136	0.5000	9.66	10.0	-3.4	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.612	0.0100	10.2	10.0	1.7	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.021	0.0100	9.90	10.0	-1.0	20.0
Ethylbenzene	Ave	1.812	1.782	0.1000	9.84	10.0	-1.6	20.0
m-Xylene & p-Xylene	Ave	2.214	2.109	0.1000	9.53	10.0	-4.7	20.0
o-Xylene	Ave	2.110	2.020	0.3000	9.57	10.0	-4.3	20.0
Styrene	Ave	3.571	3.357	0.3000	9.40	10.0	-6.0	20.0
Bromoform	Ave	0.5456	0.4790	0.1000	8.78	10.0	-12.2	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.660	0.0100	10.1	10.0	0.9	20.0
Isopropylbenzene	Ave	5.150	5.147	0.1000	10.0	10.0	-0.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.375	0.3000	8.94	10.0	-10.6	20.0
Bromobenzene	Ave	0.9704	0.8328	0.0100	8.58	10.0	-14.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.2462	0.0100	8.41	10.0	-15.9	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3574	0.0100	8.92	10.0	-10.8	20.0
N-Propylbenzene	Ave	1.109	1.048	0.0100	9.45	10.0	-5.5	20.0
2-Chlorotoluene	Ave	0.9585	0.8693	0.0100	9.07	10.0	-9.3	20.0
3-Chlorotoluene	Ave	1.043	0.9921	0.0100	9.51	10.0	-4.9	20.0
1,3,5-Trimethylbenzene	Ave	3.173	3.039	0.0100	9.58	10.0	-4.2	20.0
4-Chlorotoluene	Ave	1.035	0.9333	0.0100	9.02	10.0	-9.8	20.0
tert-Butylbenzene	Ave	2.653	2.455	0.0100	9.25	10.0	-7.5	20.0
1,2,4-Trimethylbenzene	Ave	3.226	3.042	0.0100	9.43	10.0	-5.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7771	0.0100	9.62	10.0	-3.8	20.0
sec-Butylbenzene	Ave	3.701	3.588	0.0100	9.70	10.0	-3.0	20.0
1,3-Dichlorobenzene	Ave	1.734	1.552	0.6000	8.95	10.0	-10.5	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-220320/2 Calibration Date: 08/16/2017 23:53  
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24  
 Lab File ID: 50816D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	2.948	0.0100	9.56	10.0	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.780	1.657	0.5000	9.31	10.0	-6.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7446	0.0100	9.90	10.0	-1.0	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.7796	0.0100	9.59	10.0	-4.1	20.0
n-Butylbenzene	Ave	2.514	2.422	0.0100	9.63	10.0	-3.7	20.0
1,2-Dichlorobenzene	Ave	1.653	1.505	0.4000	9.10	10.0	-9.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1712	0.0500	9.33	10.0	-6.7	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.047	0.0100	30.0	30.0	-0.1	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.074	0.0100	19.8	20.0	-0.9	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.6856	0.2000	9.07	10.0	-9.3	20.0
Hexachlorobutadiene	Ave	0.2767	0.2783	0.0100	10.1	10.0	0.6	20.0
Naphthalene	Ave	2.576	2.259	0.0100	8.77	10.0	-12.3	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.6451	0.0100	9.34	10.0	-6.6	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.3100	0.0100	9.44	10.0	-5.6	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.3139	0.0100	10.3	10.0	2.7	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2249		9.35	10.0	-6.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2827		9.64	10.0	-3.6	20.0
Toluene-d8 (Surr)	Ave	3.979	4.059		10.2	10.0	2.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.418		9.87	10.0	-1.3	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D02.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 16-Aug-2017 23:53:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-002  
 Misc. Info.: CCVIS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Sublist: chrom-MSVOA\_LL\_CHHP5\*sub29  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:35 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf

Date: 17-Aug-2017 02:00:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.370	4.370	0.000	0	241247	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.332	0.000	97	631708	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.429	0.000	85	142648	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	93	195674	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	94	142079	50.0	46.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	178601	50.0	48.2	
\$ 7 Toluene-d8 (Surr)	98	8.975	8.975	0.000	92	578969	50.0	51.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.609	0.000	86	202297	50.0	49.3	
11 Dichlorodifluoromethane	85	1.675	1.675	0.000	99	188719	50.0	51.4	
12 Chloromethane	50	1.821	1.821	0.000	100	171730	50.0	46.5	
13 Vinyl chloride	62	1.967	1.967	0.000	98	189759	50.0	50.6	
14 Butadiene	39	1.997	1.997	0.000	96	153956	50.0	45.2	
15 Bromomethane	94	2.326	2.326	0.000	91	98123	50.0	55.4	
16 Chloroethane	64	2.460	2.460	0.000	99	102184	50.0	49.6	
17 Dichlorofluoromethane	67	2.733	2.733	0.000	97	283934	50.0	54.5	
18 Trichlorofluoromethane	101	2.794	2.794	0.000	97	239885	50.0	52.1	
20 Ethyl ether	59	3.123	3.123	0.000	88	148364	50.0	49.5	
21 Acrolein	56	3.299	3.299	0.000	99	93012	150.0	123.3	
22 1,1-Dichloroethene	96	3.415	3.415	0.000	96	151784	50.0	49.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.494	3.494	0.000	93	163344	50.0	48.1	
24 Acetone	43	3.524	3.524	0.000	100	127602	100.0	77.2	
25 Iodomethane	142	3.609	3.609	0.000	98	227265	50.0	46.8	
26 Carbon disulfide	76	3.701	3.701	0.000	98	302192	50.0	44.5	
28 3-Chloro-1-propene	76	4.005	4.005	0.000	92	91924	50.0	46.0	
30 Methyl acetate	43	4.035	4.035	0.000	97	321260	100.0	98.2	
31 Methylene Chloride	84	4.218	4.218	0.000	87	183288	50.0	47.7	
32 2-Methyl-2-propanol	59	4.504	4.504	0.000	93	126692	500.0	444.1	
33 Acrylonitrile	53	4.607	4.607	0.000	98	708598	500.0	445.5	
34 trans-1,2-Dichloroethene	96	4.631	4.631	0.000	99	172743	50.0	49.0	
35 Methyl tert-butyl ether	73	4.656	4.656	0.000	96	441040	50.0	46.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.051	5.051	0.000	92	202967	50.0	44.9	
37 1,1-Dichloroethane	63	5.264	5.264	0.000	97	287557	50.0	46.9	
38 Vinyl acetate	43	5.319	5.319	0.000	97	189466	50.0	30.4	
44 2,2-Dichloropropane	97	6.000	6.000	0.000	59	35456	50.0	45.5	
45 cis-1,2-Dichloroethene	96	6.006	6.006	0.000	79	185693	50.0	46.1	
46 2-Butanone (MEK)	43	6.018	6.018	0.000	87	172420	100.0	73.3	
49 Chlorobromomethane	128	6.292	6.292	0.000	91	79152	50.0	44.2	
51 Tetrahydrofuran	42	6.304	6.304	0.000	88	112343	100.0	82.0	
52 Chloroform	83	6.432	6.432	0.000	93	290932	50.0	47.5	
53 1,1,1-Trichloroethane	97	6.590	6.590	0.000	98	225752	50.0	48.7	
54 Cyclohexane	56	6.663	6.663	0.000	88	260060	50.0	45.5	
56 Carbon tetrachloride	117	6.761	6.761	0.000	97	186117	50.0	48.3	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	97	234746	50.0	46.9	
57 Isobutyl alcohol	41	6.980	6.980	0.000	68	123071	1250.0	979.1	
58 Benzene	78	6.992	6.992	0.000	97	730604	50.0	47.6	
59 1,2-Dichloroethane	62	7.065	7.065	0.000	98	210407	50.0	47.0	
62 n-Heptane	43	7.351	7.351	0.000	84	169630	50.0	46.9	
64 Trichloroethene	130	7.722	7.722	0.000	99	171808	50.0	44.4	
66 Methylcyclohexane	83	7.953	7.953	0.000	89	260759	50.0	44.6	
67 1,2-Dichloropropane	63	7.989	7.989	0.000	94	160249	50.0	44.8	
68 Dibromomethane	93	8.081	8.081	0.000	96	91118	50.0	43.5	
70 1,4-Dioxane	88	8.081	8.081	0.000	38	31691	1000.0	871.4	
71 Dichlorobromomethane	83	8.275	8.275	0.000	99	183884	50.0	44.7	
73 2-Chloroethyl vinyl ether	63	8.573	8.573	0.000	94	191282	100.0	74.3	
74 cis-1,3-Dichloropropene	75	8.719	8.719	0.000	96	221373	50.0	44.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.872	8.872	0.000	96	283307	100.0	77.4	
76 Toluene	91	9.048	9.048	0.000	98	721464	50.0	50.7	
77 trans-1,3-Dichloropropene	75	9.291	9.291	0.000	93	183442	50.0	47.4	
78 Ethyl methacrylate	69	9.352	9.352	0.000	89	195055	50.0	41.8	
79 1,1,2-Trichloroethane	97	9.486	9.486	0.000	90	141209	50.0	47.7	
80 Tetrachloroethene	164	9.553	9.553	0.000	94	137938	50.0	50.9	
81 1,3-Dichloropropane	76	9.644	9.644	0.000	89	245963	50.0	44.9	
82 2-Hexanone	43	9.705	9.705	0.000	95	195957	100.0	69.8	
84 Chlorodibromomethane	129	9.857	9.857	0.000	90	115421	50.0	46.1	
85 Ethylene Dibromide	107	9.973	9.973	0.000	99	137810	50.0	45.3	
86 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	87	250589	50.0	51.1	
87 Chlorobenzene	112	10.453	10.453	0.000	95	447311	50.0	48.3	
88 4-Chlorobenzotrifluoride	180	10.520	10.520	0.000	96	229932	50.0	50.8	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.551	0.000	91	145676	50.0	49.5	
90 Ethylbenzene	106	10.557	10.557	0.000	98	254196	50.0	49.2	
91 m-Xylene & p-Xylene	106	10.684	10.684	0.000	0	300839	50.0	47.6	
92 o-Xylene	106	11.068	11.068	0.000	96	288130	50.0	47.9	
93 Styrene	104	11.086	11.086	0.000	93	478818	50.0	47.0	
94 Bromoform	173	11.268	11.268	0.000	95	68330	50.0	43.9	
96 2-Chlorobenzotrifluoride	180	11.341	11.341	0.000	97	236760	50.0	50.5	
97 Isopropylbenzene	105	11.433	11.433	0.000	96	734274	50.0	50.0	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.749	0.000	83	196155	50.0	44.7	
100 Bromobenzene	156	11.749	11.749	0.000	94	162955	50.0	42.9	
102 trans-1,4-Dichloro-2-buten	53	11.792	11.792	0.000	64	48167	50.0	42.1	
101 1,2,3-Trichloropropane	110	11.804	11.804	0.000	83	69942	50.0	44.6	
103 N-Propylbenzene	120	11.852	11.852	0.000	99	205099	50.0	47.3	
104 2-Chlorotoluene	126	11.944	11.944	0.000	96	170093	50.0	45.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.004	12.004	0.000	97	194123	50.0	47.6	
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	94	594744	50.0	47.9	
107 4-Chlorotoluene	126	12.065	12.065	0.000	96	182622	50.0	45.1	
108 tert-Butylbenzene	119	12.351	12.351	0.000	93	480338	50.0	46.3	
110 1,2,4-Trimethylbenzene	105	12.406	12.406	0.000	97	595283	50.0	47.2	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	95	152059	50.0	48.1	
112 sec-Butylbenzene	105	12.570	12.570	0.000	94	702171	50.0	48.5	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	97	303589	50.0	44.7	
114 4-Isopropyltoluene	119	12.728	12.728	0.000	96	576874	50.0	47.8	
115 1,4-Dichlorobenzene	146	12.795	12.795	0.000	95	324304	50.0	46.5	
116 2,4-Dichloro-1-(trifluorom	214	12.820	12.820	0.000	94	145701	50.0	49.5	
118 2,5-Dichlorobenzotrifluori	214	12.862	12.862	0.000	0	152542	50.0	48.0	
120 n-Butylbenzene	91	13.136	13.136	0.000	97	473980	50.0	48.2	
121 1,2-Dichlorobenzene	146	13.148	13.148	0.000	96	294433	50.0	45.5	
122 1,2-Dibromo-3-Chloropropan	75	13.939	13.939	0.000	80	33504	50.0	46.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.085	0.000	0	614764	150.0	149.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.505	14.505	0.000	0	420491	100.0	99.1	
126 1,2,4-Trichlorobenzene	180	14.760	14.760	0.000	94	134158	50.0	45.3	
127 Hexachlorobutadiene	225	14.912	14.912	0.000	96	54454	50.0	50.3	
128 Naphthalene	128	15.028	15.028	0.000	97	442040	50.0	43.8	
129 1,2,3-Trichlorobenzene	180	15.253	15.253	0.000	96	126227	50.0	46.7	
131 2,4,5-Trichlorotoluene	159	16.026	16.026	0.000	0	60667	50.0	47.2	
130 2,3,6-Trichlorotoluene	159	16.123	16.123	0.000	97	61414	50.0	51.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	95.5	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	91.7	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00258	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D02.D

Injection Date: 16-Aug-2017 23:53:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

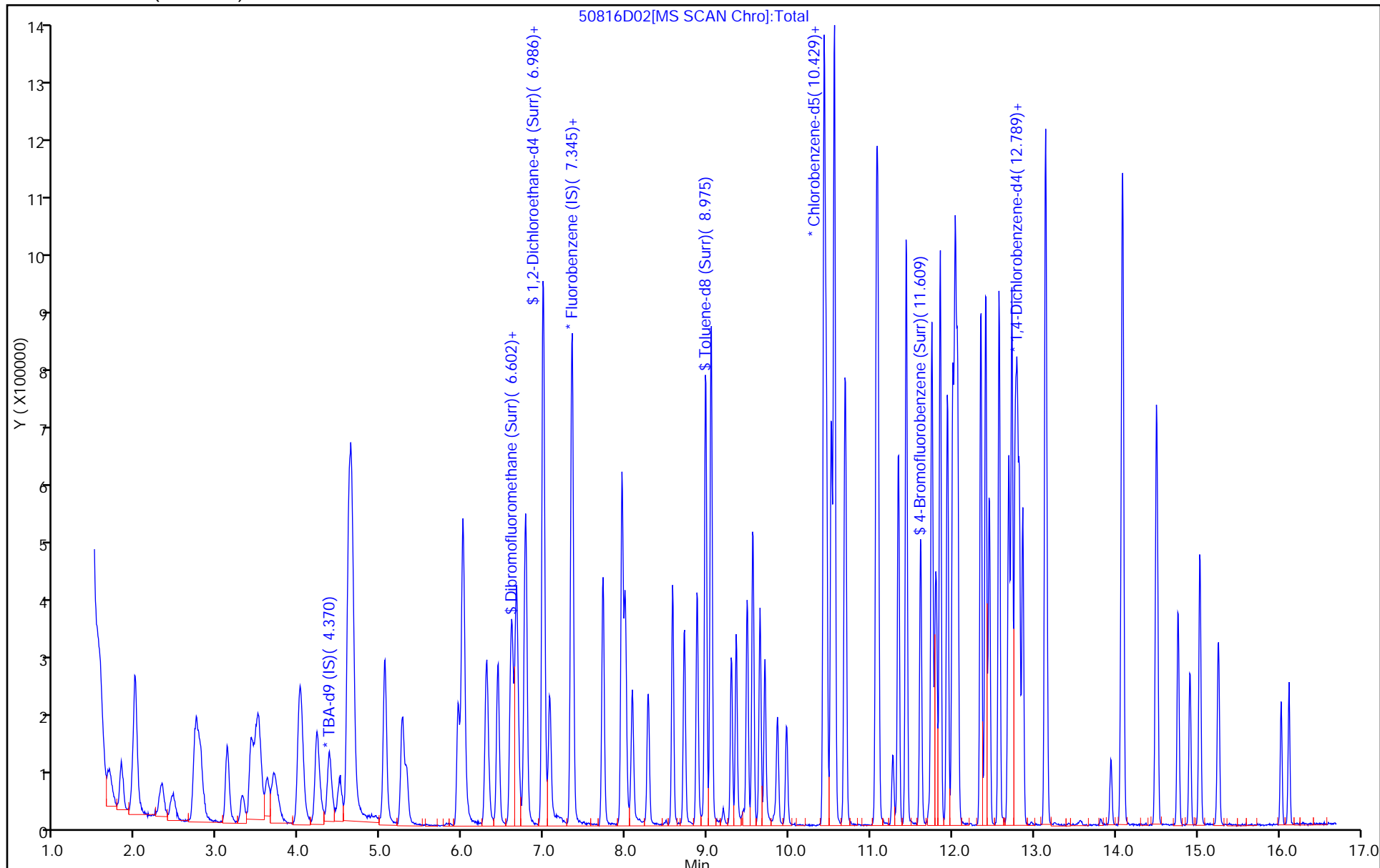
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 08-Jun-2017 05:32:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017092-001  
 Misc. Info.: BFB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Jun-2017 03:51:53 Calib Date: 08-Jun-2017 12:55:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 06:34:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.403	8.403	0.000	0	57707	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

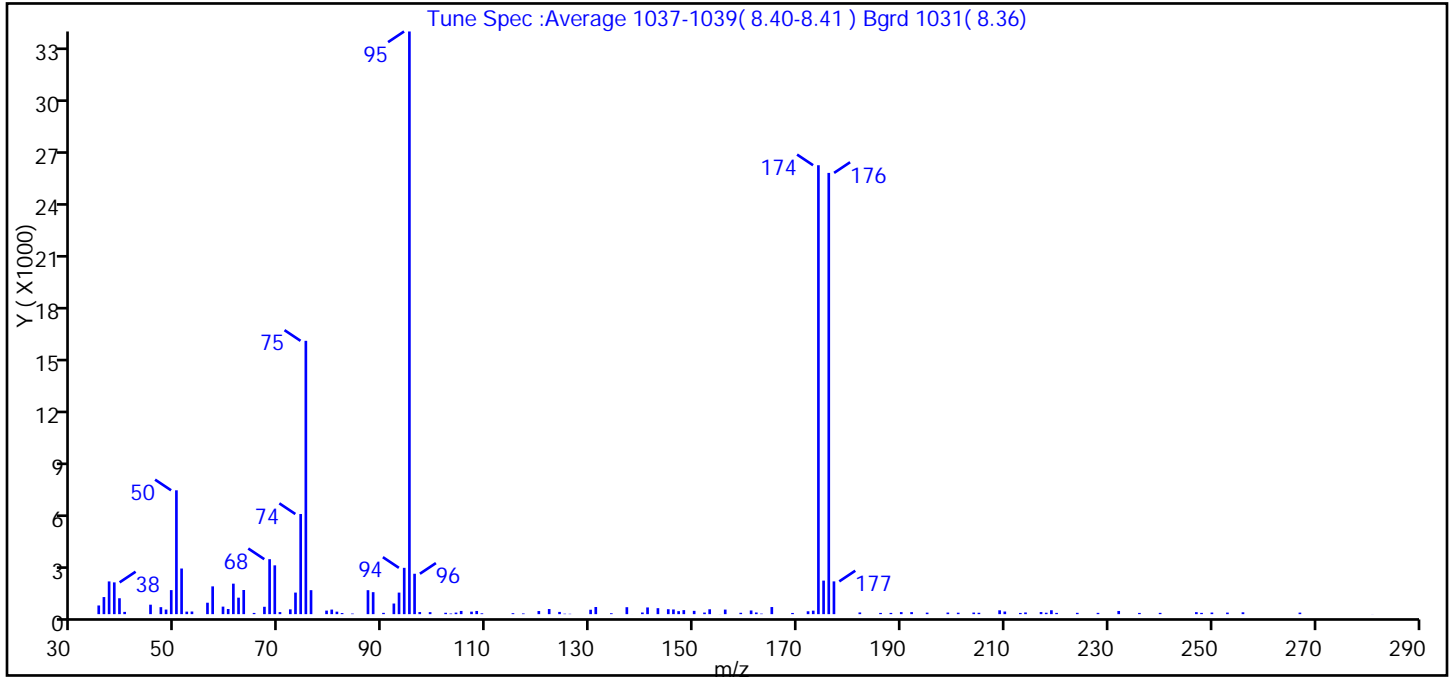
VOABFB25\_00088 Amount Added: 1.00 Units: uL



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D  
 Injection Date: 08-Jun-2017 05:32:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.3
75	30 to 60% of m/z 95	46.9
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	77.0
175	5 to 9% of m/z 174	5.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	75.7 (98.3)
177	5 to 9% of m/z 176	5.6 (7.4)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D\MSVOA\_LL\_CHHP5.rsl\spec  
 Injection Date: 08-Jun-2017 05:32:30  
 Spectrum: Tune Spec :Average 1037-1039( 8.40-8.41 ) Bgrd 1031( 8.36)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 120

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	498	76.00	1377	126.00	20	182.00	97
36.00	981	79.00	203	130.00	253	186.00	71
37.00	1879	80.00	262	131.00	410	188.00	72
38.00	1824	81.00	143	134.00	52	190.00	116
39.00	913	82.00	63	137.00	399	192.00	116
40.00	130	84.00	33	138.00	1	195.00	87
45.00	543	87.00	1376	140.00	94	199.00	91
47.00	401	88.00	1262	141.00	385	201.00	83
48.00	263	90.00	75	143.00	343	204.00	91
49.00	1380	92.00	610	145.00	283	205.00	79
50.00	7111	93.00	1237	146.00	269	209.00	220
51.00	2620	94.00	2659	147.00	172	210.00	150
52.00	145	95.00	33456	148.00	231	213.00	69
53.00	151	96.00	2319	150.00	190	214.00	97
56.00	656	97.00	121	152.00	91	217.00	120
57.00	1595	99.00	115	153.00	279	218.00	82
59.00	432	102.00	79	155.00	4	219.00	224
60.00	295	103.00	36	156.00	262	220.00	72
61.00	1751	104.00	89	159.00	78	224.00	76
62.00	946	105.00	184	161.00	211	228.00	74
63.00	1386	107.00	143	162.00	96	232.00	182
65.00	70	108.00	182	163.00	30	236.00	70
67.00	423	109.00	48	165.00	408	240.00	74
68.00	3156	115.00	55	169.00	68	247.00	115
69.00	2802	116.00	1	172.00	165	248.00	74
70.00	118	117.00	40	173.00	200	250.00	92
72.00	275	120.00	179	174.00	25776	253.00	90
73.00	1238	122.00	293	175.00	1926	256.00	106
74.00	5749	124.00	128	176.00	25336	267.00	88
75.00	15694	125.00	25	177.00	1881	281.00	4

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D

Injection Date: 08-Jun-2017 05:32:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

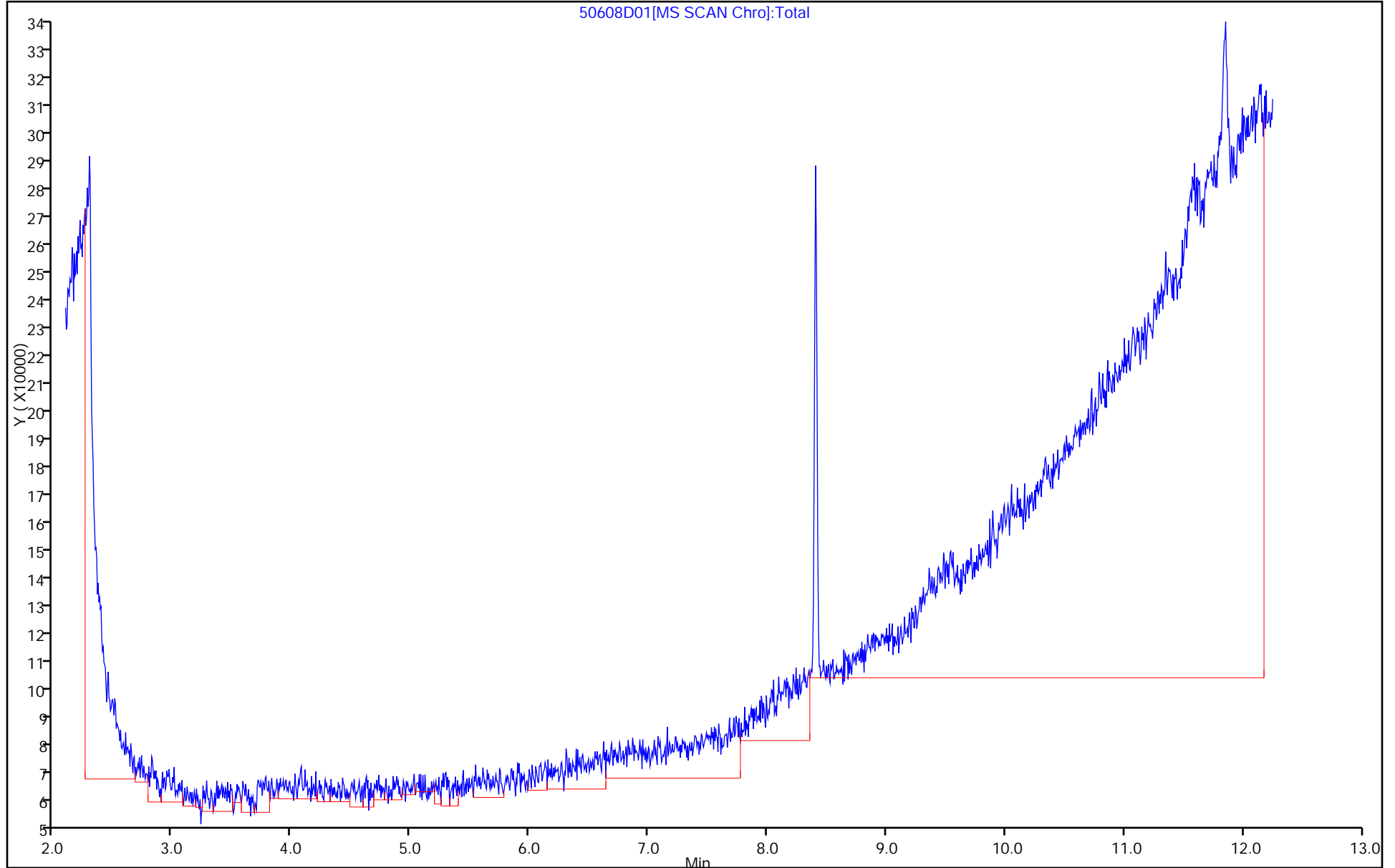
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 27-Jul-2017 00:22:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017756-001  
 Misc. Info.: BFB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Jul-2017 01:04:43 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 05:09:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.334	8.334	0.000	0	79656	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

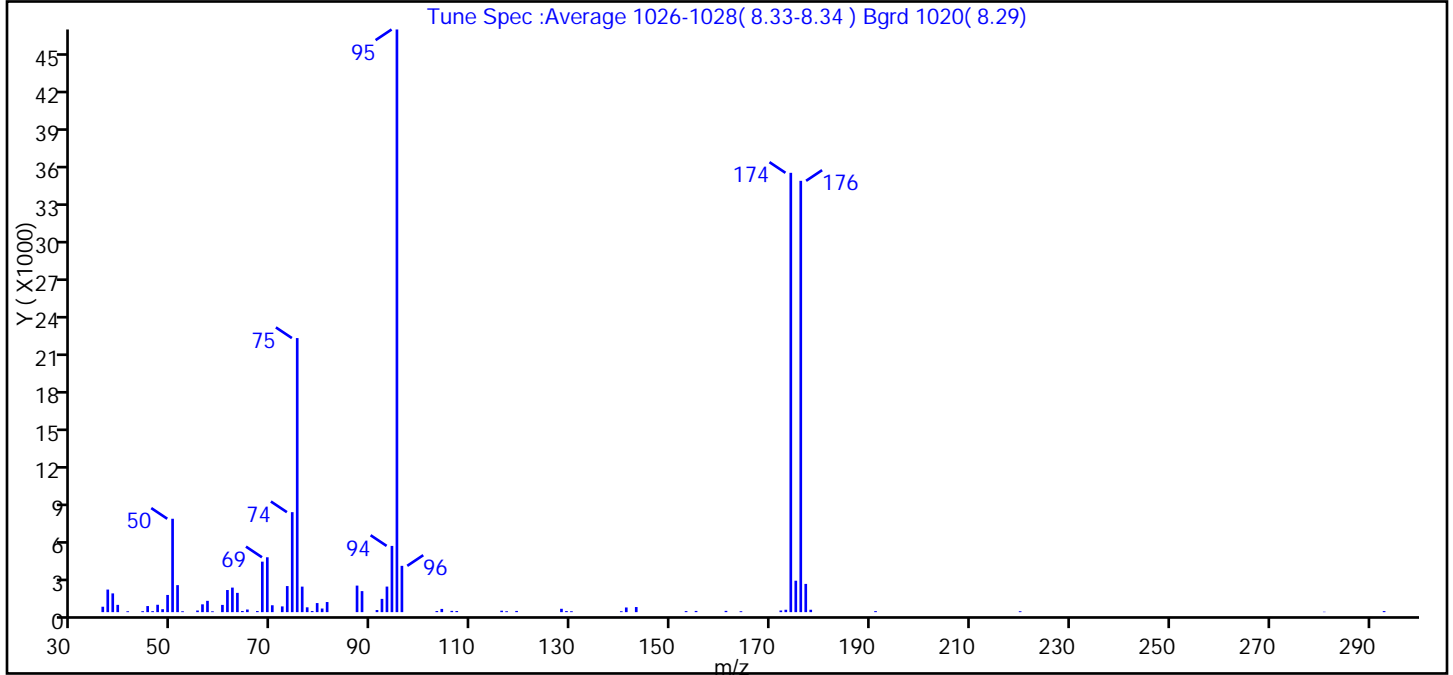
**Reagents:**

VOABFB25\_00090 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D  
 Injection Date: 27-Jul-2017 00:22:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.0
75	30 to 60% of m/z 95	47.0
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	75.4
175	5 to 9% of m/z 174	5.4 (7.2)
176	Greater than 95% but less than 101% of m/z 174	74.0 (98.2)
177	5 to 9% of m/z 176	4.8 (6.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D\MSVOA\_LL\_CHHP5.rsl\spec  
 Injection Date: 27-Jul-2017 00:22:30  
 Spectrum: Tune Spec :Average 1026-1028( 8.33-8.34 ) Bgrd 1020( 8.29)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	433	61.00	1769	87.00	2123	141.00	374
37.00	1806	62.00	1963	88.00	1682	143.00	408
38.00	1500	63.00	1542	91.00	169	153.00	84
39.00	582	64.00	92	92.00	1061	155.00	97
41.00	70	65.00	209	93.00	2045	161.00	102
44.00	76	67.00	88	94.00	5297	164.00	73
45.00	487	68.00	4038	95.00	46600	172.00	132
46.00	79	69.00	4388	96.00	3703	173.00	191
47.00	590	70.00	551	103.00	90	174.00	35136
48.00	235	72.00	459	104.00	258	175.00	2515
49.00	1375	73.00	2085	106.00	102	176.00	34496
50.00	7469	74.00	7996	107.00	90	177.00	2259
51.00	2160	75.00	21920	116.00	116	178.00	192
52.00	70	76.00	2042	117.00	73	191.00	80
55.00	130	77.00	386	119.00	97	220.00	71
56.00	624	78.00	89	128.00	269	281.00	30
57.00	904	79.00	726	129.00	86	293.00	87
58.00	67	80.00	290	130.00	72		
60.00	579	81.00	809	140.00	72		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D

Injection Date: 27-Jul-2017 00:22:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

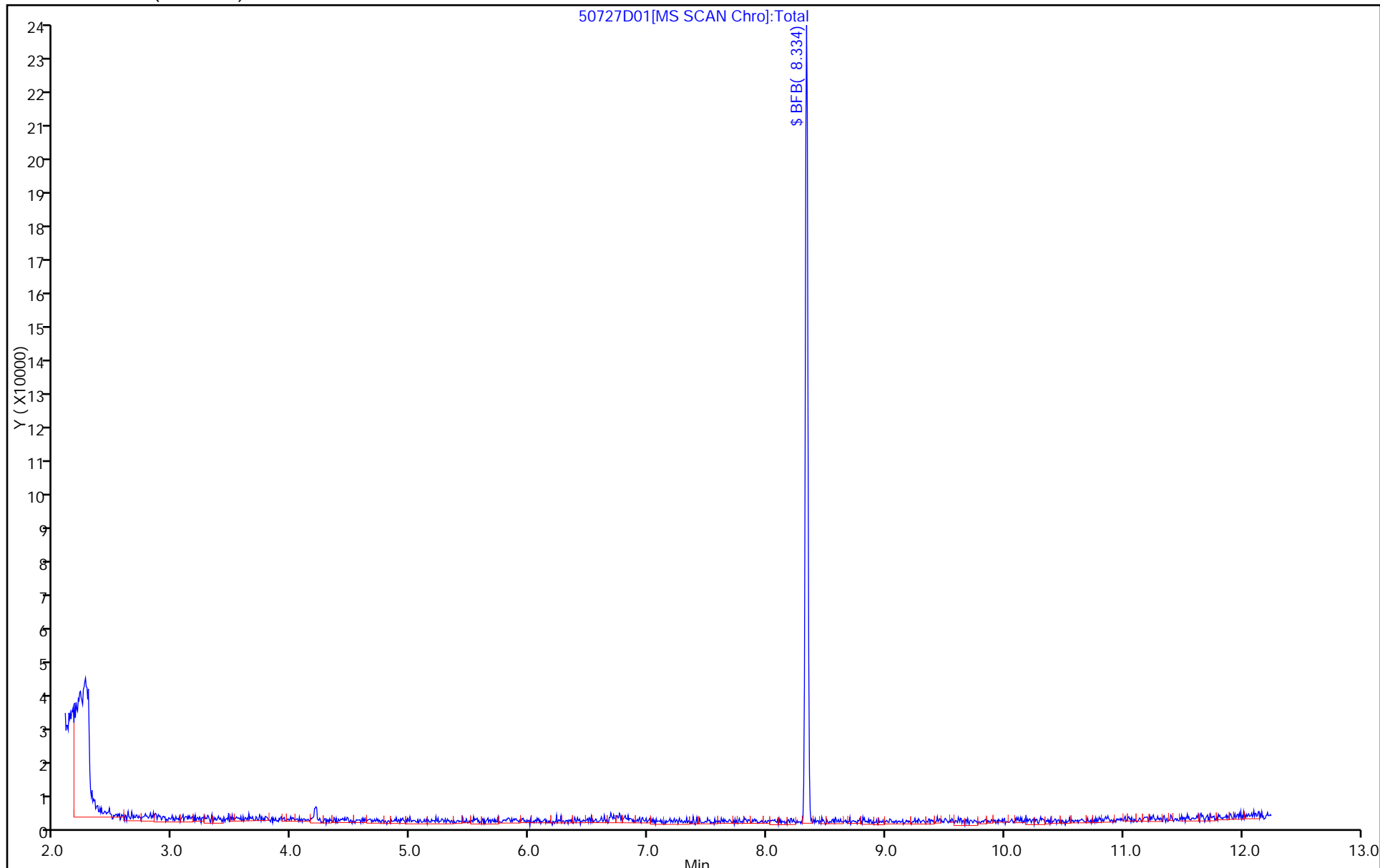
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 09-Aug-2017 01:19:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-001  
 Misc. Info.: BFB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:01 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.336	8.336	0.000	0	95289	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

**Reagents:**

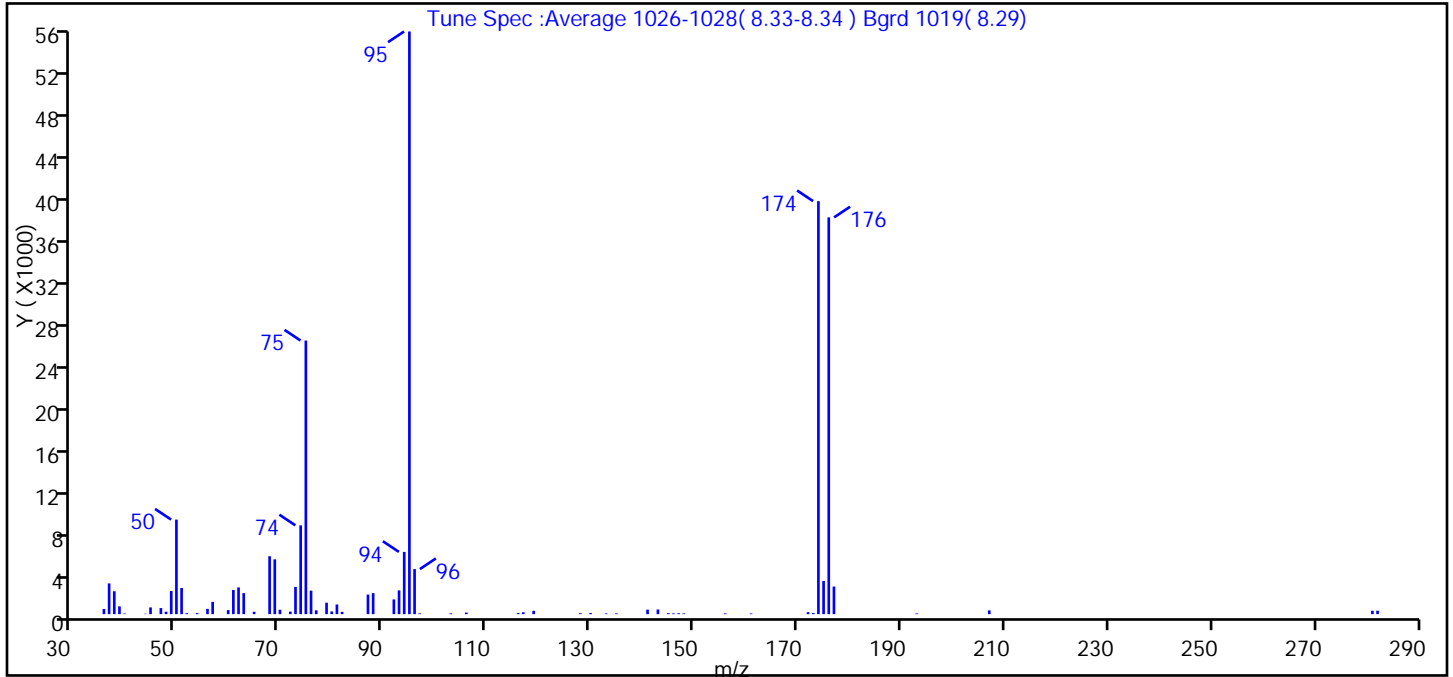
VOABFB25\_00090 Amount Added: 1.00 Units: uL



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D01.D  
 Injection Date: 09-Aug-2017 01:19:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.2
75	30 to 60% of m/z 95	47.0
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	70.9
175	5 to 9% of m/z 174	5.7 (8.0)
176	Greater than 95% but less than 101% of m/z 174	68.1 (96.1)
177	5 to 9% of m/z 176	4.7 (7.0)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D01.D\MSVOA\_LL\_CHHP5.rsl\spec  
 Injection Date: 09-Aug-2017 01:19:30  
 Spectrum: Tune Spec :Average 1026-1028( 8.33-8.34 ) Bgrd 1019( 8.29)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	492	62.00	2537	92.00	1398	146.00	73
37.00	2917	63.00	1993	93.00	2255	147.00	85
38.00	2175	65.00	222	94.00	5910	148.00	70
39.00	740	68.00	5499	95.00	55336	156.00	73
40.00	56	69.00	5205	96.00	4279	161.00	68
44.00	37	70.00	418	97.00	72	172.00	188
45.00	641	72.00	238	103.00	77	173.00	110
47.00	577	73.00	2587	106.00	150	174.00	39224
48.00	232	74.00	8434	116.00	107	175.00	3153
49.00	2199	75.00	25984	117.00	177	176.00	37680
50.00	8980	76.00	2233	119.00	315	177.00	2622
51.00	2484	77.00	364	128.00	87	193.00	69
52.00	91	79.00	1087	130.00	108	207.00	357
54.00	99	80.00	255	133.00	68	281.00	322
56.00	502	81.00	919	135.00	72	282.00	327
57.00	1164	82.00	219	141.00	426		
60.00	385	87.00	1859	143.00	441		
61.00	2298	88.00	1997	145.00	95		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D01.D

Injection Date: 09-Aug-2017 01:19:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 09-Aug-2017 23:50:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-001  
 Misc. Info.: BFB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:40 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.341	8.341	0.000	0	64795	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

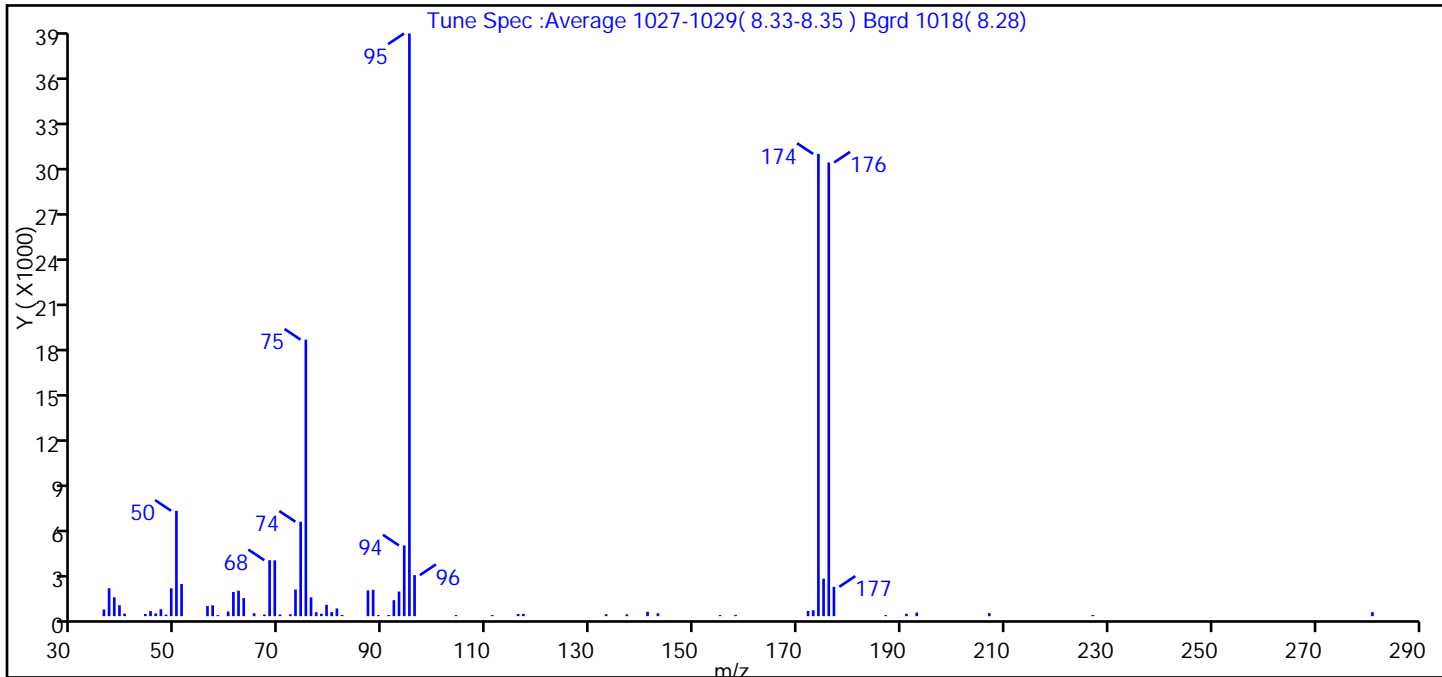
**Reagents:**

VOABFB25\_00090 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D01.D  
 Injection Date: 09-Aug-2017 23:50:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.1
75	30 to 60% of m/z 95	47.5
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	1.0 (1.3)
174	50 to 120% of m/z 95	79.3
175	5 to 9% of m/z 174	6.4 (8.1)
176	Greater than 95% but less than 101% of m/z 174	77.9 (98.1)
177	5 to 9% of m/z 176	5.0 (6.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D01.D\MSVOA\_LL\_CHHP5.rsl\spec  
 Injection Date: 09-Aug-2017 23:50:30  
 Spectrum: Tune Spec :Average 1027-1029( 8.33-8.35 ) Bgrd 1018( 8.28)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	432	61.00	1577	81.00	502	141.00	286
37.00	1824	62.00	1658	82.00	78	143.00	188
38.00	1227	63.00	1179	87.00	1681	155.00	73
39.00	714	65.00	189	88.00	1718	158.00	83
40.00	166	67.00	103	89.00	69	172.00	338
44.00	136	68.00	3653	91.00	76	173.00	390
45.00	333	69.00	3645	92.00	1042	174.00	30184
46.00	176	70.00	108	93.00	1608	175.00	2444
47.00	453	72.00	121	94.00	4618	176.00	29624
48.00	98	73.00	1738	95.00	38048	177.00	1917
49.00	1820	74.00	6167	96.00	2681	187.00	69
50.00	6881	75.00	18056	104.00	73	191.00	160
51.00	2103	76.00	1225	111.00	70	193.00	237
56.00	656	77.00	257	116.00	137	207.00	197
57.00	706	78.00	158	117.00	149	227.00	77
58.00	71	79.00	739	133.00	123	281.00	263
60.00	302	80.00	266	137.00	118		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D01.D

Injection Date: 09-Aug-2017 23:50:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

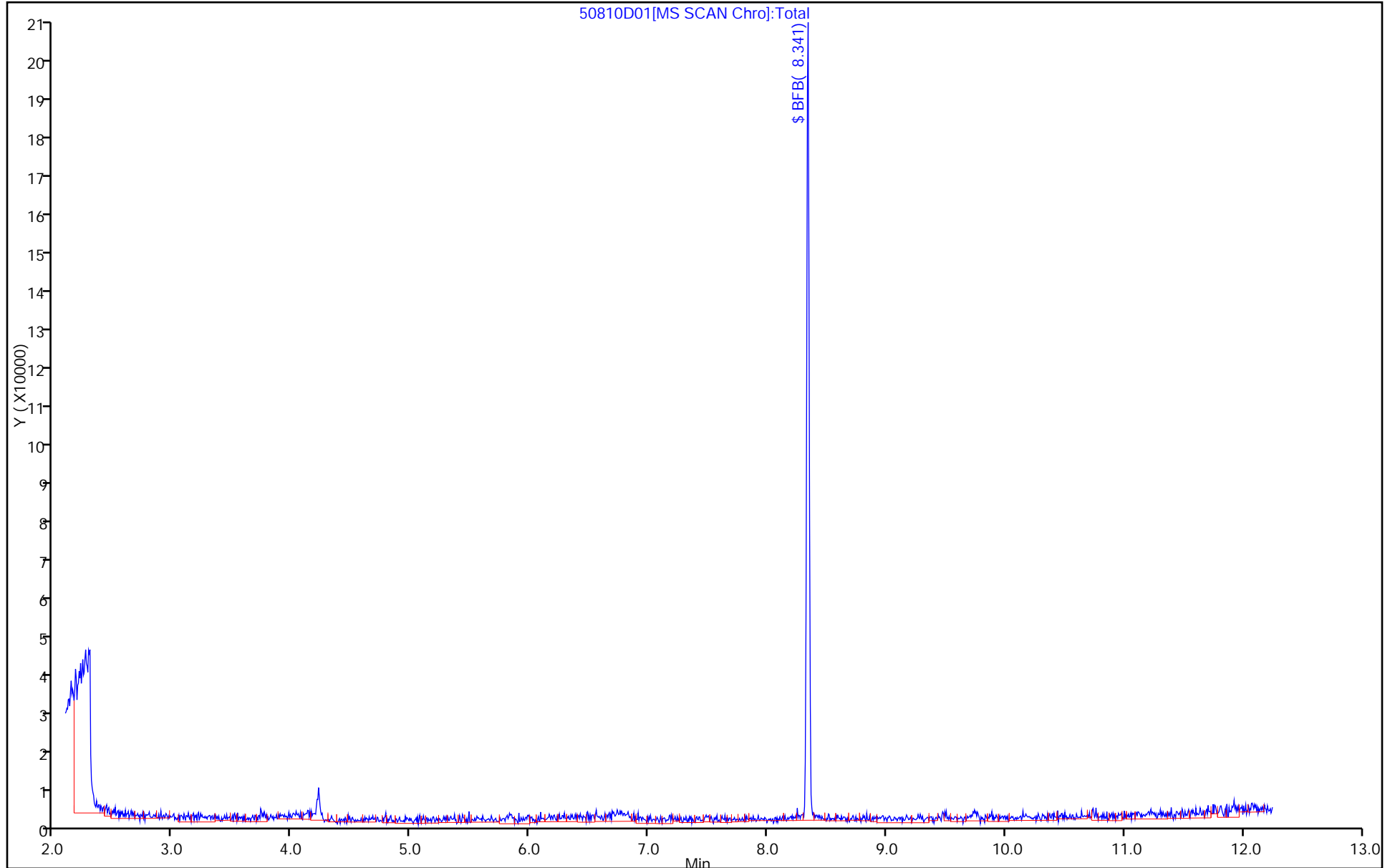
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 11-Aug-2017 00:48:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-001  
 Misc. Info.: BFB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 01:12:53 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.337	8.337	0.000	0	112753	NR	NR	

**QC Flag Legend**

Processing Flags  
 NR - Missing Quant Standard

**Reagents:**

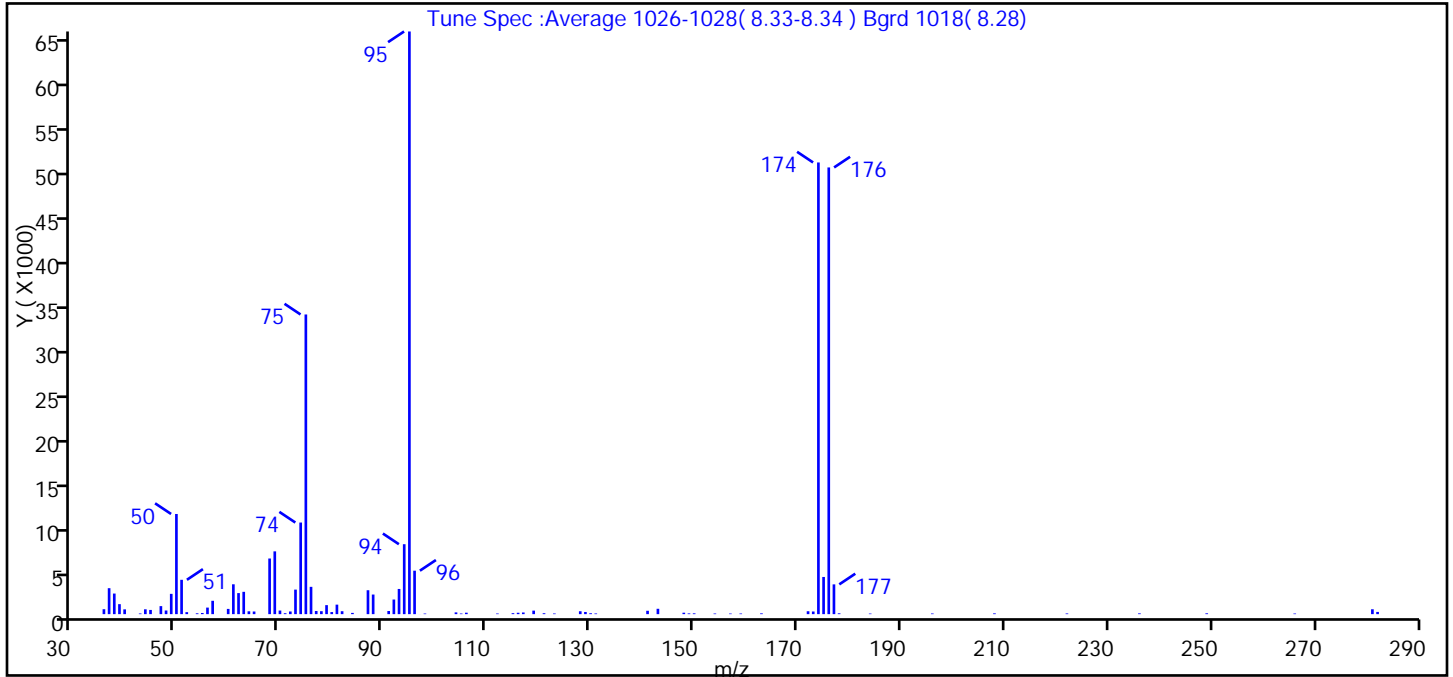
VOABFB25\_00091 Amount Added: 1.00 Units: uL



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D01.D  
 Injection Date: 11-Aug-2017 00:48:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.2
75	30 to 60% of m/z 95	51.4
96	5 to 9% of m/z 95	7.5
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	77.5
175	5 to 9% of m/z 174	6.4 (8.2)
176	Greater than 95% but less than 101% of m/z 174	76.7 (98.9)
177	5 to 9% of m/z 176	5.1 (6.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D01.D\MSVOA\_LL\_CHHP5.rsl\spec  
 Injection Date: 11-Aug-2017 00:48:30  
 Spectrum: Tune Spec :Average 1026-1028( 8.33-8.34 ) Bgrd 1018( 8.28)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	554	65.00	297	95.00	65376	154.00	72
37.00	2912	68.00	6243	96.00	4875	157.00	68
38.00	2310	69.00	7044	97.00	4	159.00	72
39.00	1121	70.00	404	98.00	67	163.00	89
40.00	537	71.00	105	104.00	197	172.00	326
43.00	75	72.00	299	105.00	72	173.00	297
44.00	543	73.00	2753	106.00	162	174.00	50680
45.00	472	74.00	10278	112.00	72	175.00	4172
47.00	900	75.00	33624	115.00	110	176.00	50120
48.00	408	76.00	3063	116.00	156	177.00	3341
49.00	2276	77.00	352	117.00	186	178.00	93
50.00	11238	78.00	331	119.00	395	184.00	66
51.00	3853	79.00	1011	121.00	104	196.00	73
52.00	223	80.00	233	123.00	74	208.00	88
54.00	94	81.00	1066	128.00	324	222.00	78
55.00	130	82.00	329	129.00	244	236.00	88
56.00	735	84.00	140	130.00	102	249.00	93
57.00	1497	87.00	2683	131.00	77	266.00	70
60.00	587	88.00	2200	141.00	377	281.00	548
61.00	3350	91.00	351	143.00	601	282.00	249
62.00	2362	92.00	1641	148.00	161		
63.00	2504	93.00	2826	149.00	83		
64.00	319	94.00	7847	150.00	91		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D01.D

Injection Date: 11-Aug-2017 00:48:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

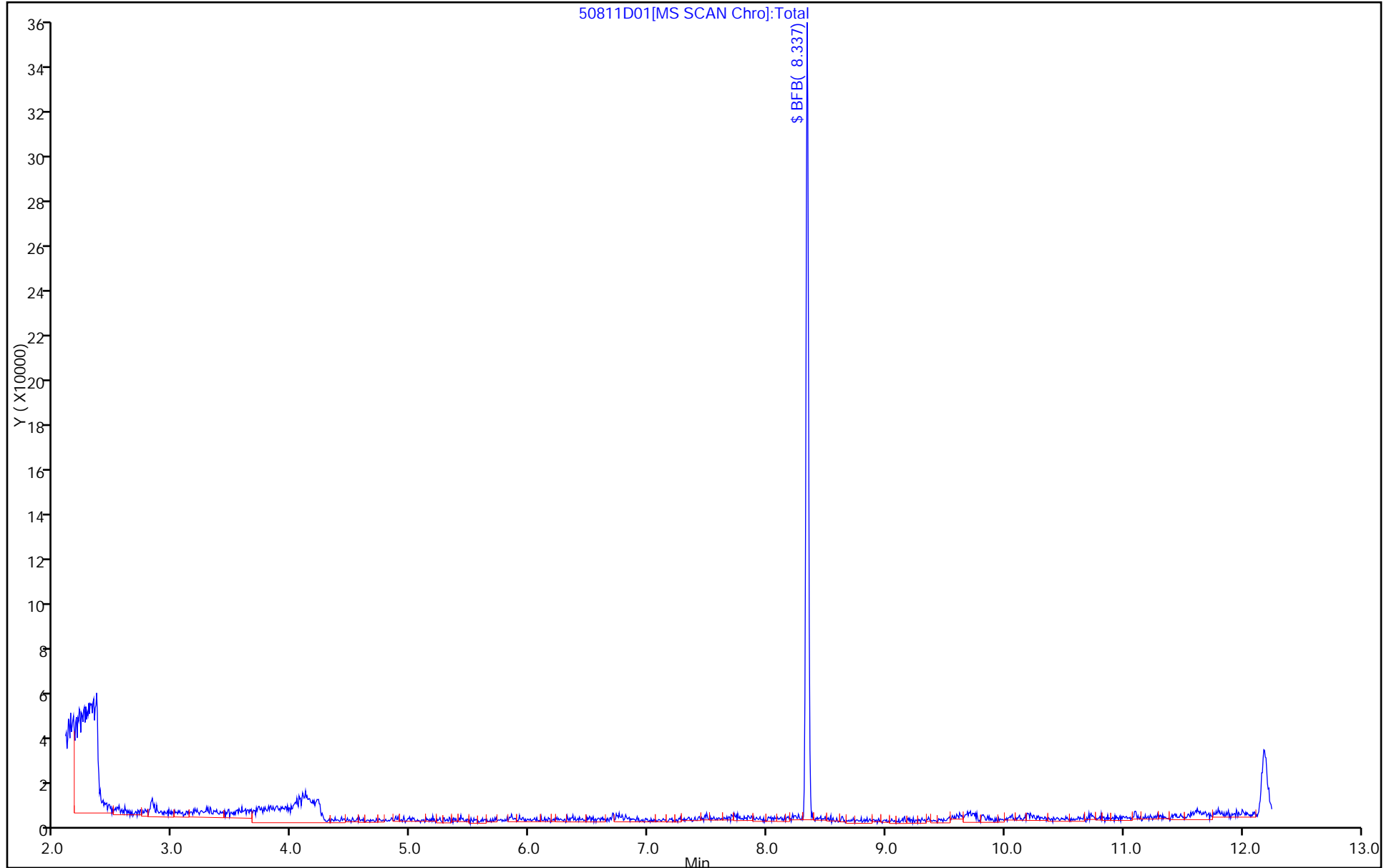
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 16-Aug-2017 23:20:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-001  
 Misc. Info.: BFB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:32 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf Date: 16-Aug-2017 23:41:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.337	8.337	0.000	0	146125	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

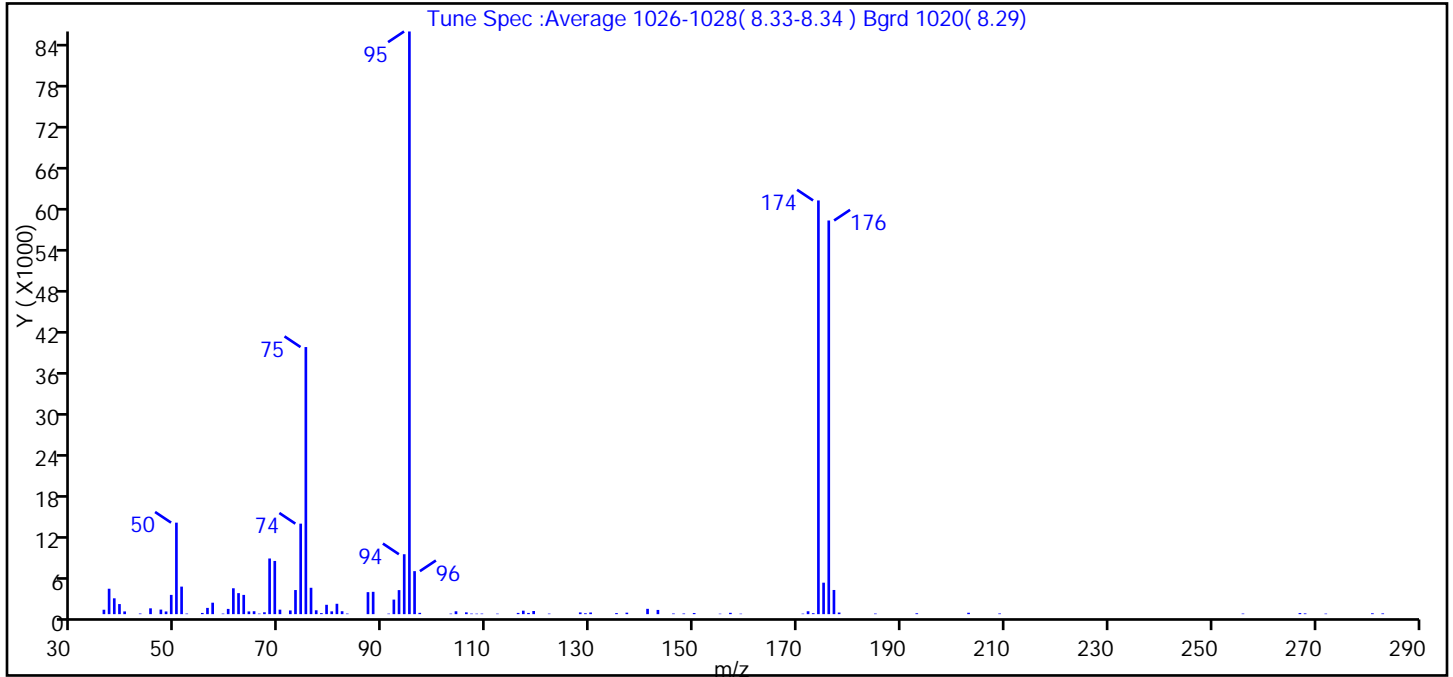
**Reagents:**

VOABFB25\_00091 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D01.D  
 Injection Date: 16-Aug-2017 23:20:30 Instrument ID: CHHP5  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.7
75	30 to 60% of m/z 95	45.8
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	71.0
175	5 to 9% of m/z 174	5.4 (7.6)
176	Greater than 95% but less than 101% of m/z 174	67.6 (95.2)
177	5 to 9% of m/z 176	4.1 (6.1)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D01.D\MSVOA\_LL\_CHHP5.rsl\spec  
 Injection Date: 16-Aug-2017 23:20:30  
 Spectrum: Tune Spec :Average 1026-1028( 8.33-8.34 ) Bgrd 1020( 8.29)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 92

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	645	66.00	77	95.00	85080	148.00	93
37.00	3711	67.00	271	96.00	6278	150.00	162
38.00	2312	68.00	8126	97.00	192	155.00	66
39.00	1472	69.00	7767	103.00	76	157.00	192
40.00	397	70.00	654	104.00	418	159.00	68
43.00	91	72.00	541	106.00	263	171.00	73
45.00	850	73.00	3519	107.00	84	172.00	422
47.00	665	74.00	13213	108.00	70	173.00	136
48.00	393	75.00	39000	109.00	80	174.00	60408
49.00	2811	76.00	3851	112.00	72	175.00	4594
50.00	13360	77.00	564	116.00	179	176.00	57480
51.00	4020	78.00	149	117.00	505	177.00	3530
52.00	81	79.00	1365	118.00	177	178.00	235
55.00	175	80.00	409	119.00	459	185.00	85
56.00	912	81.00	1514	122.00	79	193.00	128
57.00	1671	82.00	427	128.00	250	203.00	203
59.00	82	83.00	84	129.00	130	209.00	100
60.00	765	87.00	3212	130.00	240	256.00	85
61.00	3778	88.00	3260	135.00	151	267.00	159
62.00	3069	91.00	77	137.00	215	268.00	110
63.00	2810	92.00	2124	141.00	776	272.00	77
64.00	397	93.00	3509	143.00	615	281.00	126
65.00	425	94.00	8747	146.00	94	283.00	108

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D01.D

Injection Date: 16-Aug-2017 23:20:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

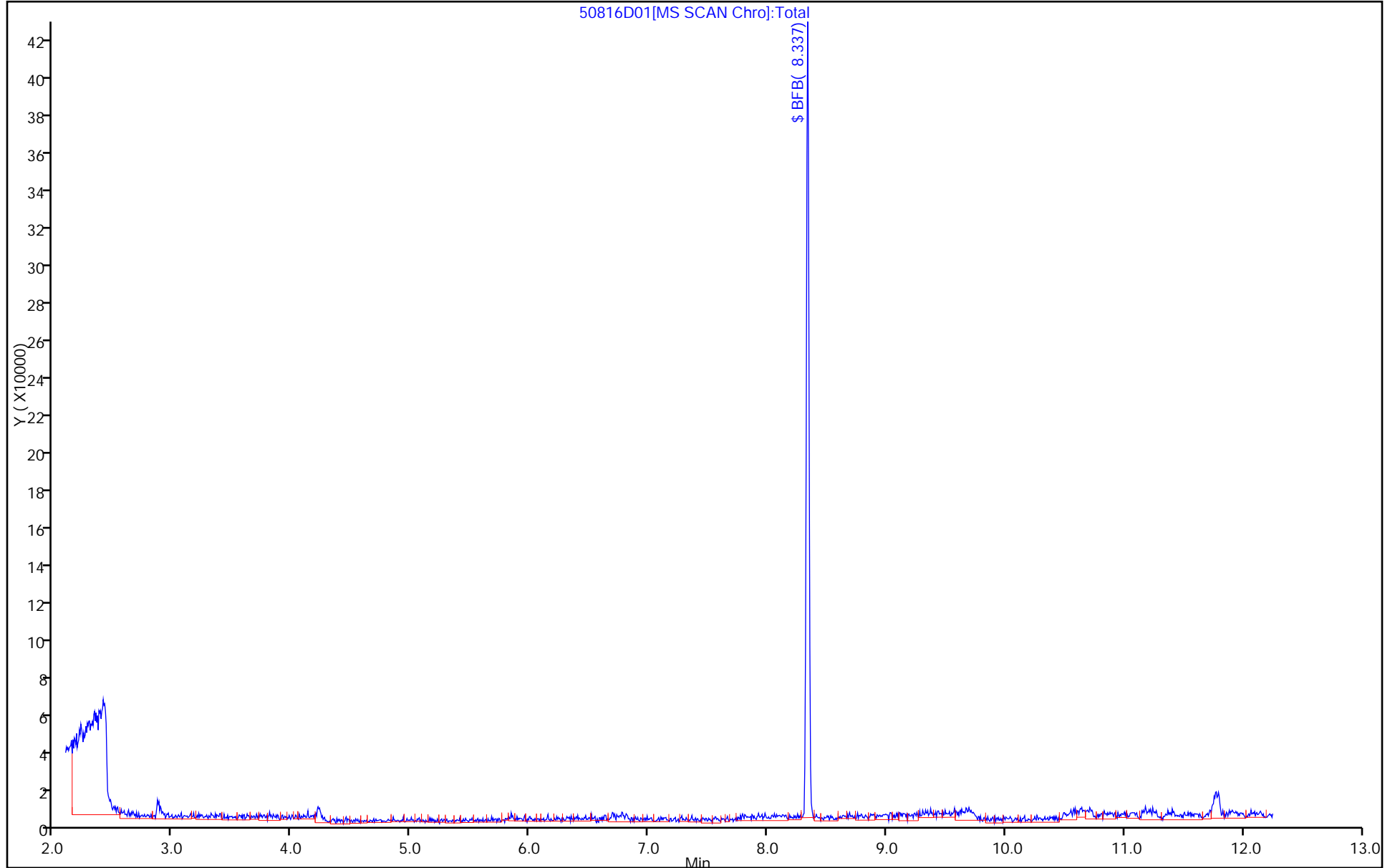
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-219487/5  
 Matrix: Water Lab File ID: 50809D05.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 03:30  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-219487/5  
 Matrix: Water Lab File ID: 50809D05.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 03:30  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D05.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 09-Aug-2017 03:30:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-005  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 04:58:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.373	-0.019	0	316310	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.336	0.005	98	539618	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.426	10.426	0.000	85	154521	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.768	0.006	96	240338	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.618	6.618	0.000	94	128702	50.0	49.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.989	6.983	0.006	0	156965	50.0	49.6	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.978	0.000	93	519787	50.0	42.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	91	229112	50.0	51.6	
11 Dichlorodifluoromethane	85		1.684					ND	
12 Chloromethane	50		1.830					ND	
13 Vinyl chloride	62		1.970					ND	
14 Butadiene	39		1.988					ND	
15 Bromomethane	94		2.292					ND	
16 Chloroethane	64		2.457					ND	
17 Dichlorofluoromethane	67		2.743					ND	
18 Trichlorofluoromethane	101		2.791					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.120					ND	
21 Acrolein	56		3.302					ND	
22 1,1-Dichloroethene	96		3.424					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.497					ND	
24 Acetone	43	3.539	3.533	0.006	81	8196		5.81	
25 Iodomethane	142		3.619					ND	
26 Carbon disulfide	76		3.698					ND	
27 Isopropyl alcohol	45		3.752					ND	
29 Acetonitrile	41		3.904					ND	
28 3-Chloro-1-propene	76		4.002					ND	
30 Methyl acetate	43		4.026					ND	
31 Methylene Chloride	84		4.221					ND	
32 2-Methyl-2-propanol	59		4.507					ND	
33 Acrylonitrile	53		4.604					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.635					ND	
35 Methyl tert-butyl ether	73		4.659					ND	
36 Hexane	57		5.048					ND	
37 1,1-Dichloroethane	63		5.267					ND	
39 2-Chloro-1,3-butadiene	53		5.309					ND	
41 Isopropyl ether	45		5.316					ND	
38 Vinyl acetate	43		5.322					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.790					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.009					ND	
45 cis-1,2-Dichloroethene	96		6.009					ND	
46 2-Butanone (MEK)	43		6.022					ND	
47 Propionitrile	54		6.052					ND	
48 Ethyl acetate	43		6.052					ND	
50 Methacrylonitrile	41		6.222					ND	
49 Chlorobromomethane	128		6.289					ND	
51 Tetrahydrofuran	42	6.313	6.307	0.006	66	2768		2.37	
52 Chloroform	83		6.435					ND	
53 1,1,1-Trichloroethane	97		6.593					ND	
54 Cyclohexane	56		6.660					ND	
56 Carbon tetrachloride	117		6.758					ND	
55 1,1-Dichloropropene	75		6.776					ND	
57 Isobutyl alcohol	41		6.983					ND	
58 Benzene	78		6.995					ND	
59 1,2-Dichloroethane	62		7.068					ND	
151 Isooctane	57		7.104					ND	
61 Tert-amyl methyl ether	73		7.128					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.354					ND	
63 n-Butanol	56		7.646					ND	
64 Trichloroethene	130		7.725					ND	
65 Ethyl acrylate	55		7.810					ND	
66 Methylcyclohexane	83		7.956					ND	
67 1,2-Dichloropropane	63		7.993					ND	
69 Methyl methacrylate	69		8.047					ND	
70 1,4-Dioxane	88		8.078					ND	
68 Dibromomethane	93		8.084					ND	
71 Dichlorobromomethane	83		8.279					ND	
73 2-Chloroethyl vinyl ether	63		8.577					ND	
74 cis-1,3-Dichloropropene	75		8.717					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.875					ND	
76 Toluene	91		9.045					ND	
77 trans-1,3-Dichloropropene	75		9.294					ND	
78 Ethyl methacrylate	69		9.355					ND	
79 1,1,2-Trichloroethane	97		9.489					ND	
80 Tetrachloroethene	164		9.556					ND	
81 1,3-Dichloropropane	76		9.647					ND	
82 2-Hexanone	43		9.702					ND	
83 n-Butyl acetate	43		9.805					ND	
84 Chlorodibromomethane	129		9.860					ND	
85 Ethylene Dibromide	107		9.970					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.432					ND	
87 Chlorobenzene	112		10.456					ND	
88 4-Chlorobenzotrifluoride	180		10.517					ND	
89 1,1,1,2-Tetrachloroethane	131		10.548					ND	
90 Ethylbenzene	106		10.560					ND	
91 m-Xylene & p-Xylene	106		10.688					ND	
92 o-Xylene	106		11.071					ND	
93 Styrene	104	11.083	11.089	-0.006	1	479		0.0434	
95 Cyclohexanol	57		11.189					ND	
94 Bromoform	173		11.272					ND	
96 2-Chlorobenzotrifluoride	180		11.339					ND	
97 Isopropylbenzene	105		11.436					ND	
98 Cyclohexanone	55		11.515					ND	
99 1,1,2,2-Tetrachloroethane	83		11.752					ND	
100 Bromobenzene	156		11.752					ND	
102 trans-1,4-Dichloro-2-buten	53		11.789					ND	
101 1,2,3-Trichloropropane	110		11.807					ND	
103 N-Propylbenzene	120		11.856					ND	
104 2-Chlorotoluene	126		11.941					ND	
105 3-Chlorotoluene	126		12.008					ND	
106 1,3,5-Trimethylbenzene	105		12.038					ND	
107 4-Chlorotoluene	126		12.062					ND	
108 tert-Butylbenzene	119		12.348					ND	
110 1,2,4-Trimethylbenzene	105		12.409					ND	
111 1,2-dichloro-4-(trifluorom	214		12.458					ND	
112 sec-Butylbenzene	105		12.573					ND	
113 1,3-Dichlorobenzene	146	12.689	12.695	-0.006	1	827		0.0992	
114 4-Isopropyltoluene	119		12.732					ND	
115 1,4-Dichlorobenzene	146		12.792					ND	
116 2,4-Dichloro-1-(triflourom	214		12.823					ND	
117 1,2,3-Trimethylbenzene	105		12.835					ND	
118 2,5-Dichlorobenzotrifluori	214		12.865					ND	
119 Benzyl chloride	91		12.926					ND	
120 n-Butylbenzene	91		13.139					ND	
121 1,2-Dichlorobenzene	146		13.151					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.948					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.076	14.082	-0.006	0	849		0.1685	
124 1,3,5-Trichlorobenzene	180		14.179					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.502					ND	
126 1,2,4-Trichlorobenzene	180		14.763					ND	
127 Hexachlorobutadiene	225		14.916					ND	
128 Naphthalene	128		15.031					ND	
129 1,2,3-Trichlorobenzene	180		15.262					ND	
131 2,4,5-Trichlorotoluene	159		16.029					ND	
130 2,3,6-Trichlorotoluene	159		16.120					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42	6.301	6.253	0.048	35	774		0	

**Reagents:**

VOA8260INT\_00072                      Amount Added: 2.00                      Units: uL                      Run Reagent  
 VOA8260SURR\_00071                      Amount Added: 2.00                      Units: uL                      Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D05.D

Injection Date: 09-Aug-2017 03:30:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

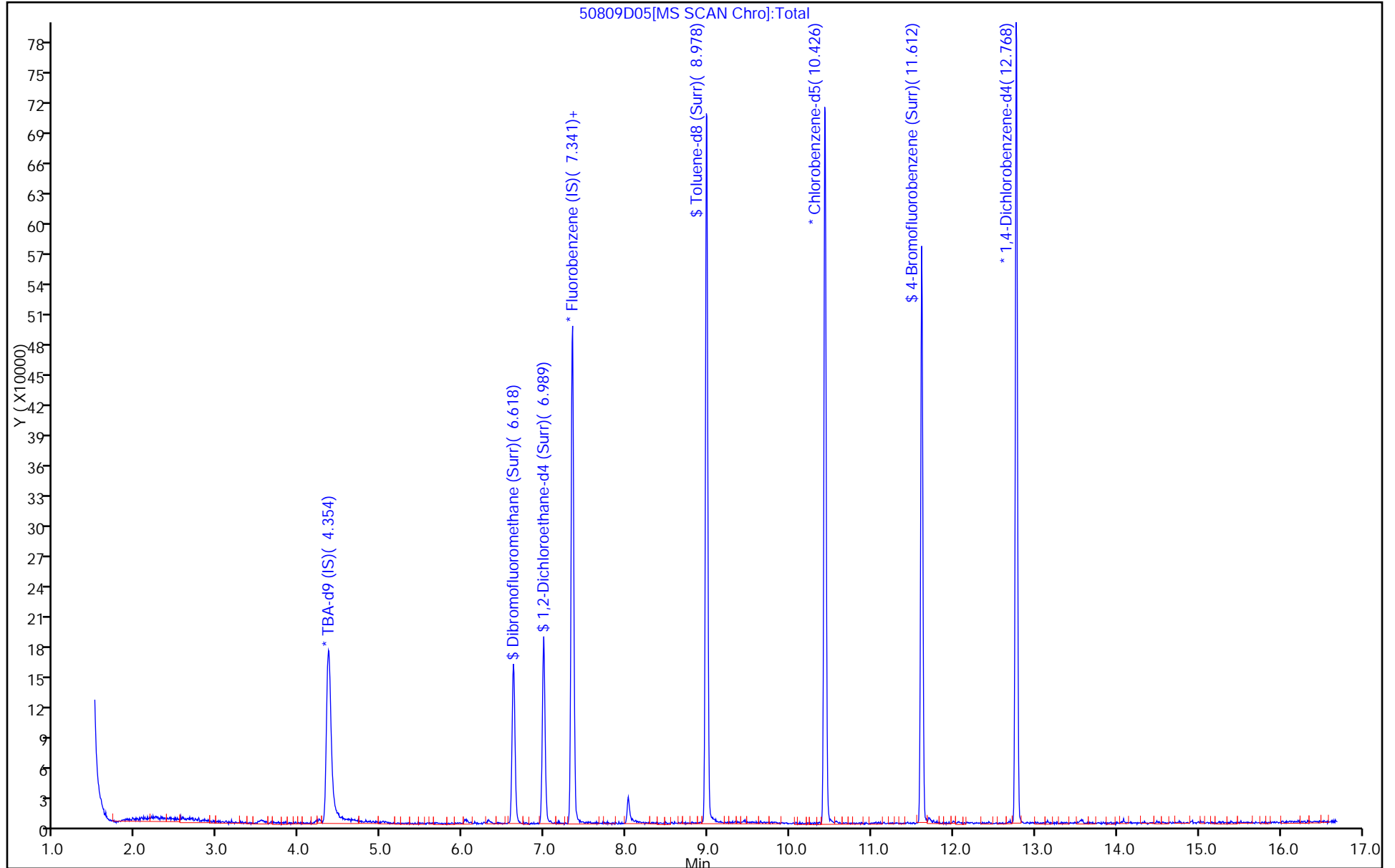
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D05.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 09-Aug-2017 03:30:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-005  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 04:58:04

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.6	99.14
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.6	99.14
\$ 7 Toluene-d8 (Surr)	50.0	42.3	84.53
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.6	103.17

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-219617/5  
 Matrix: Water Lab File ID: 50810D05.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 01:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-219617/5  
 Matrix: Water Lab File ID: 50810D05.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 01:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		65-121
2037-26-5	Toluene-d8 (Surr)	86		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D05.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 10-Aug-2017 01:53:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-005  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 02:43:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.376	-0.023	0	312270	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.333	0.007	98	539206	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.423	0.008	85	151330	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.771	0.002	96	238882	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.615	0.001	92	129333	50.0	49.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.986	-0.005	0	155398	50.0	49.1	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.975	0.008	92	519637	50.0	43.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.609	0.002	87	224680	50.0	51.7	
11 Dichlorodifluoromethane	85		1.681					ND	
12 Chloromethane	50		1.827					ND	
13 Vinyl chloride	62		1.967					ND	
14 Butadiene	39		1.991					ND	
15 Bromomethane	94		2.283					ND	
16 Chloroethane	64		2.448					ND	
17 Dichlorofluoromethane	67		2.734					ND	
18 Trichlorofluoromethane	101		2.788					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.111					ND	
21 Acrolein	56		3.299					ND	
22 1,1-Dichloroethene	96		3.409					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.494					ND	
24 Acetone	43	3.544	3.524	0.020	68	5649		4.01	
25 Iodomethane	142		3.622					ND	
26 Carbon disulfide	76		3.713					ND	
27 Isopropyl alcohol	45		3.752					ND	
29 Acetonitrile	41		3.904					ND	
28 3-Chloro-1-propene	76		4.005					ND	
30 Methyl acetate	43		4.029					ND	
31 Methylene Chloride	84	4.220	4.218	0.002	18	3051		-2.36	
32 2-Methyl-2-propanol	59		4.504					ND	
33 Acrylonitrile	53		4.607					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.632					ND	
35 Methyl tert-butyl ether	73		4.650					ND	
36 Hexane	57		5.051					ND	
37 1,1-Dichloroethane	63		5.258					ND	
39 2-Chloro-1,3-butadiene	53		5.309					ND	
41 Isopropyl ether	45		5.316					ND	
38 Vinyl acetate	43		5.319					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.790					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.000					ND	
45 cis-1,2-Dichloroethene	96		6.000					ND	
46 2-Butanone (MEK)	43		6.025					ND	
47 Propionitrile	54		6.052					ND	
48 Ethyl acetate	43	6.051	6.052	-0.001	1	587		0.1122	
50 Methacrylonitrile	41		6.222					ND	
49 Chlorobromomethane	128		6.286					ND	
51 Tetrahydrofuran	42		6.305					ND	
52 Chloroform	83		6.432					ND	
53 1,1,1-Trichloroethane	97		6.591					ND	
54 Cyclohexane	56		6.657					ND	
56 Carbon tetrachloride	117		6.761					ND	
55 1,1-Dichloropropene	75		6.779					ND	
58 Benzene	78		6.992					ND	
57 Isobutyl alcohol	41		6.992					ND	
59 1,2-Dichloroethane	62		7.071					ND	
151 Isooctane	57		7.104					ND	
61 Tert-amyl methyl ether	73		7.128					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43	7.359	7.351	0.008	1	178		0.0577	
63 n-Butanol	56		7.646					ND	
64 Trichloroethene	130		7.722					ND	
65 Ethyl acrylate	55	7.778	7.810	-0.032	1	159		0.0208	
66 Methylcyclohexane	83		7.953					ND	
67 1,2-Dichloropropane	63		7.990					ND	
69 Methyl methacrylate	69		8.047					ND	
70 1,4-Dioxane	88		8.075					ND	
68 Dibromomethane	93		8.081					ND	
71 Dichlorobromomethane	83		8.276					ND	
73 2-Chloroethyl vinyl ether	63		8.574					ND	
74 cis-1,3-Dichloropropene	75		8.720					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872					ND	
76 Toluene	91		9.048					ND	
77 trans-1,3-Dichloropropene	75		9.292					ND	
78 Ethyl methacrylate	69		9.352					ND	
79 1,1,2-Trichloroethane	97		9.486					ND	
80 Tetrachloroethene	164		9.559					ND	
81 1,3-Dichloropropane	76		9.644					ND	
82 2-Hexanone	43		9.705					ND	
83 n-Butyl acetate	43		9.805					ND	
84 Chlorodibromomethane	129		9.857					ND	
85 Ethylene Dibromide	107		9.973					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.429					ND	
87 Chlorobenzene	112		10.460					ND	
88 4-Chlorobenzotrifluoride	180		10.520					ND	
89 1,1,1,2-Tetrachloroethane	131		10.551					ND	
90 Ethylbenzene	106		10.557					ND	
91 m-Xylene & p-Xylene	106		10.691					ND	
92 o-Xylene	106		11.068					ND	
93 Styrene	104		11.092					ND	
95 Cyclohexanol	57		11.189					ND	
94 Bromoform	173		11.275					ND	
96 2-Chlorobenzotrifluoride	180		11.342					ND	
97 Isopropylbenzene	105		11.439					ND	
98 Cyclohexanone	55		11.515					ND	
99 1,1,2,2-Tetrachloroethane	83		11.749					ND	
100 Bromobenzene	156		11.749					ND	
102 trans-1,4-Dichloro-2-buten	53		11.786					ND	
101 1,2,3-Trichloropropane	110		11.810					ND	
103 N-Propylbenzene	120		11.853					ND	
104 2-Chlorotoluene	126		11.938					ND	
105 3-Chlorotoluene	126		12.005					ND	
106 1,3,5-Trimethylbenzene	105		12.035					ND	
107 4-Chlorotoluene	126		12.066					ND	
108 tert-Butylbenzene	119		12.352					ND	
110 1,2,4-Trimethylbenzene	105		12.406					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.577					ND	
113 1,3-Dichlorobenzene	146		12.692					ND	
114 4-Isopropyltoluene	119		12.729					ND	
115 1,4-Dichlorobenzene	146		12.796					ND	
116 2,4-Dichloro-1-(triflourom	214		12.826					ND	
117 1,2,3-Trimethylbenzene	105		12.835					ND	
118 2,5-Dichlorobenzotrifluori	214		12.869					ND	
119 Benzyl chloride	91		12.926					ND	
120 n-Butylbenzene	91		13.136					ND	
121 1,2-Dichlorobenzene	146		13.149					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.939					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180		14.179					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.505					ND	
126 1,2,4-Trichlorobenzene	180		14.767					ND	
127 Hexachlorobutadiene	225		14.913					ND	
128 Naphthalene	128	15.030	15.034	-0.004	1	1633		0.1327	
129 1,2,3-Trichlorobenzene	180		15.259					ND	
131 2,4,5-Trichlorotoluene	159		16.026					ND	
130 2,3,6-Trichlorotoluene	159		16.123					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42	6.331	6.253	0.078	1	889		0	

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D05.D

Injection Date: 10-Aug-2017 01:53:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

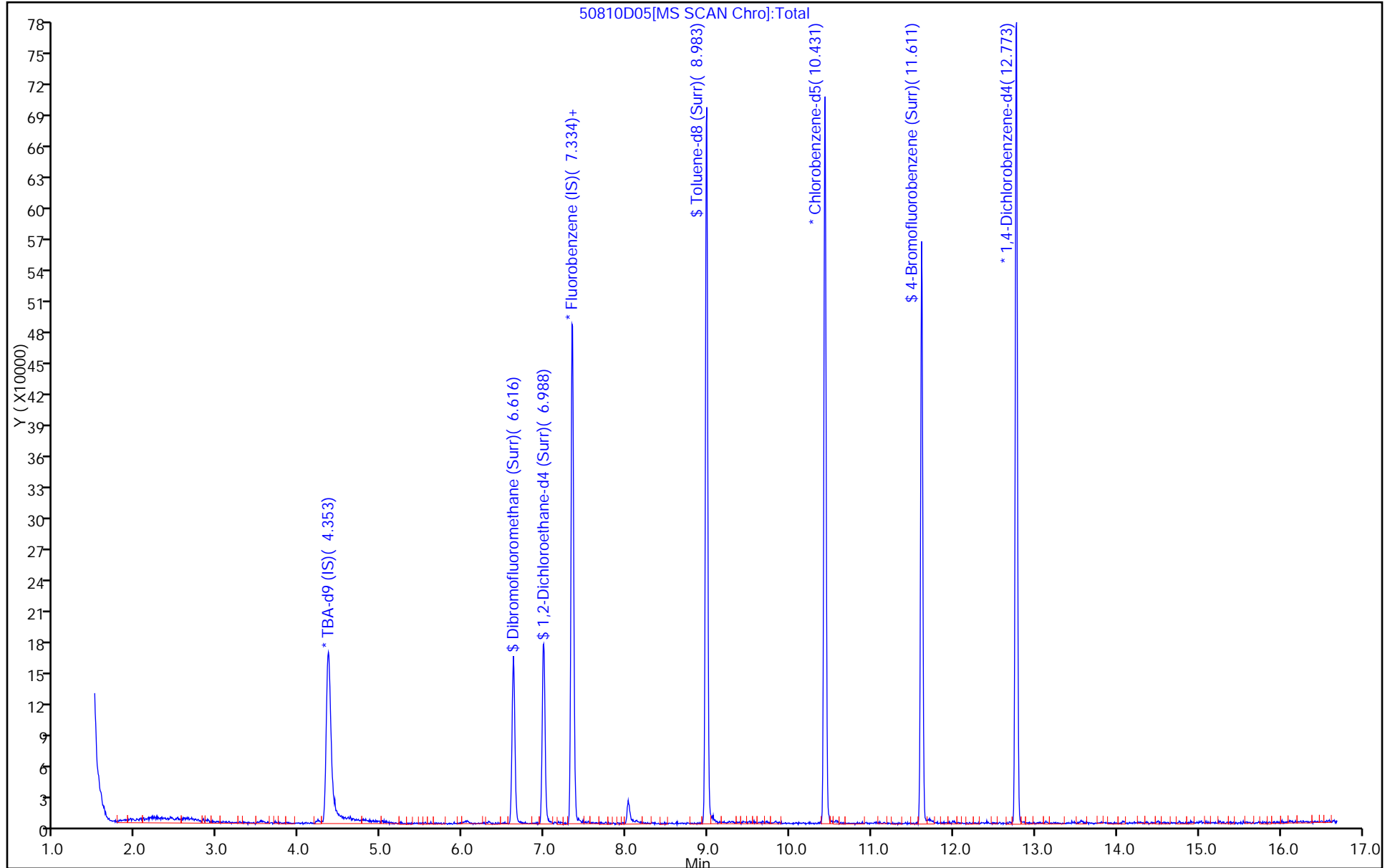
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D05.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 10-Aug-2017 01:53:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-005  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 02:43:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.9	99.70
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.1	98.22
\$ 7 Toluene-d8 (Surr)	50.0	43.1	86.29
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.7	103.31

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-219759/7  
 Matrix: Water Lab File ID: 50811D07.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 04:11  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-219759/7  
 Matrix: Water Lab File ID: 50811D07.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 04:11  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		65-121
2037-26-5	Toluene-d8 (Surr)	84		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D07.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 11-Aug-2017 04:11:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-007  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 11-Aug-2017 04:44:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.353	4.355	-0.002	0	319015	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.336	0.004	98	545601	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.427	0.003	85	158664	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.769	0.003	96	250614	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.616	0.000	93	127994	50.0	48.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.987	0.000	0	161971	50.0	50.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.976	0.006	93	531850	50.0	42.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.610	0.000	90	234964	50.0	51.5	
11 Dichlorodifluoromethane	85		1.676					ND	
12 Chloromethane	50		1.822					ND	
13 Vinyl chloride	62		1.968					ND	
14 Butadiene	39		1.992					ND	
15 Bromomethane	94		2.327					ND	
16 Chloroethane	64		2.449					ND	
17 Dichlorofluoromethane	67		2.741					ND	
18 Trichlorofluoromethane	101		2.795					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.124					ND	
21 Acrolein	56		3.313					ND	
22 1,1-Dichloroethene	96		3.410					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.495					ND	
24 Acetone	43	3.519	3.532	-0.013	1	3805		2.67	M
25 Iodomethane	142		3.617					ND	
26 Carbon disulfide	76		3.708					ND	
27 Isopropyl alcohol	45		3.808					ND	
29 Acetonitrile	41		3.966					ND	
28 3-Chloro-1-propene	76		4.000					ND	
30 Methyl acetate	43		4.024					ND	
31 Methylene Chloride	84		4.219					ND	
32 2-Methyl-2-propanol	59		4.493					ND	
33 Acrylonitrile	53		4.602					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.633					ND	
35 Methyl tert-butyl ether	73		4.645					ND	
36 Hexane	57		5.046					ND	
37 1,1-Dichloroethane	63		5.265					ND	
38 Vinyl acetate	43		5.320					ND	
39 2-Chloro-1,3-butadiene	53		5.365					ND	
41 Isopropyl ether	45		5.365					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.834					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.001					ND	
45 cis-1,2-Dichloroethene	96		6.008					ND	
46 2-Butanone (MEK)	43		6.020					ND	
48 Ethyl acetate	43		6.095					ND	
47 Propionitrile	54		6.101					ND	
50 Methacrylonitrile	41	6.269	6.272	-0.003	8	601		0.1926	
49 Chlorobromomethane	128		6.293					ND	
51 Tetrahydrofuran	42		6.306					ND	
52 Chloroform	83	6.445	6.433	0.012	1	523		0.0990	
53 1,1,1-Trichloroethane	97		6.598					ND	
54 Cyclohexane	56		6.665					ND	
56 Carbon tetrachloride	117		6.762					ND	
55 1,1-Dichloropropene	75		6.774					ND	
57 Isobutyl alcohol	41		6.981					ND	
58 Benzene	78		6.993					ND	
59 1,2-Dichloroethane	62		7.066					ND	
151 Isooctane	57		7.148					ND	
61 Tert-amyl methyl ether	73		7.172					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.352					ND	
63 n-Butanol	56		7.689					ND	
64 Trichloroethene	130		7.723					ND	
65 Ethyl acrylate	55		7.847					ND	
66 Methylcyclohexane	83		7.954					ND	
67 1,2-Dichloropropane	63		7.997					ND	
70 1,4-Dioxane	88		8.070					ND	
69 Methyl methacrylate	69		8.078					ND	
68 Dibromomethane	93		8.082					ND	
71 Dichlorobromomethane	83		8.277					ND	
73 2-Chloroethyl vinyl ether	63		8.575					ND	
74 cis-1,3-Dichloropropene	75		8.721					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.873					ND	
76 Toluene	91		9.049					ND	
77 trans-1,3-Dichloropropene	75		9.293					ND	
78 Ethyl methacrylate	69		9.353					ND	
79 1,1,2-Trichloroethane	97		9.487					ND	
80 Tetrachloroethene	164		9.560					ND	
81 1,3-Dichloropropane	76		9.645					ND	
82 2-Hexanone	43		9.706					ND	
83 n-Butyl acetate	43		9.824					ND	
84 Chlorodibromomethane	129		9.858					ND	
85 Ethylene Dibromide	107		9.974					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.430					ND	
87 Chlorobenzene	112		10.461					ND	
88 4-Chlorobenzotrifluoride	180		10.521					ND	
89 1,1,1,2-Tetrachloroethane	131		10.552					ND	
90 Ethylbenzene	106		10.558					ND	
91 m-Xylene & p-Xylene	106		10.686					ND	
92 o-Xylene	106		11.069					ND	
93 Styrene	104		11.087					ND	
95 Cyclohexanol	57		11.189					ND	
94 Bromoform	173		11.270					ND	
96 2-Chlorobenzotrifluoride	180		11.337					ND	
97 Isopropylbenzene	105		11.434					ND	
98 Cyclohexanone	55		11.528					ND	
99 1,1,2,2-Tetrachloroethane	83		11.750					ND	
100 Bromobenzene	156		11.750					ND	
102 trans-1,4-Dichloro-2-buten	53		11.787					ND	
101 1,2,3-Trichloropropane	110		11.805					ND	
103 N-Propylbenzene	120		11.854					ND	
104 2-Chlorotoluene	126		11.939					ND	
105 3-Chlorotoluene	126		12.006					ND	
106 1,3,5-Trimethylbenzene	105		12.036					ND	
107 4-Chlorotoluene	126		12.061					ND	
108 tert-Butylbenzene	119		12.353					ND	
110 1,2,4-Trimethylbenzene	105		12.407					ND	
111 1,2-dichloro-4-(trifluorom	214		12.450					ND	
112 sec-Butylbenzene	105		12.572					ND	
113 1,3-Dichlorobenzene	146	12.693	12.693	0.000	1	464		0.0534	
114 4-Isopropyltoluene	119		12.730					ND	
115 1,4-Dichlorobenzene	146	12.803	12.797	0.006	1	264		0.0296	
117 1,2,3-Trimethylbenzene	105		12.818					ND	
116 2,4-Dichloro-1-(triflourom	214		12.821					ND	
118 2,5-Dichlorobenzotrifluori	214		12.864					ND	
119 Benzyl chloride	91		12.909					ND	
120 n-Butylbenzene	91		13.137					ND	
121 1,2-Dichlorobenzene	146		13.150					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.940					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.086					ND	
124 1,3,5-Trichlorobenzene	180	14.123	14.132	-0.009	1	1747		0.3368	
125 2,3- & 3,4- Dichlorotoluen	125		14.500					ND	
126 1,2,4-Trichlorobenzene	180		14.762					ND	
127 Hexachlorobutadiene	225		14.914					ND	
128 Naphthalene	128		15.029					ND	
129 1,2,3-Trichlorobenzene	180		15.260					ND	
131 2,4,5-Trichlorotoluene	159		16.027					ND	
130 2,3,6-Trichlorotoluene	159		16.124					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000					ND	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	
T 137 Tetrahydrofuran TIC	42	6.336	6.253	0.083	1	228		0	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D07.D

Injection Date: 11-Aug-2017 04:11:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

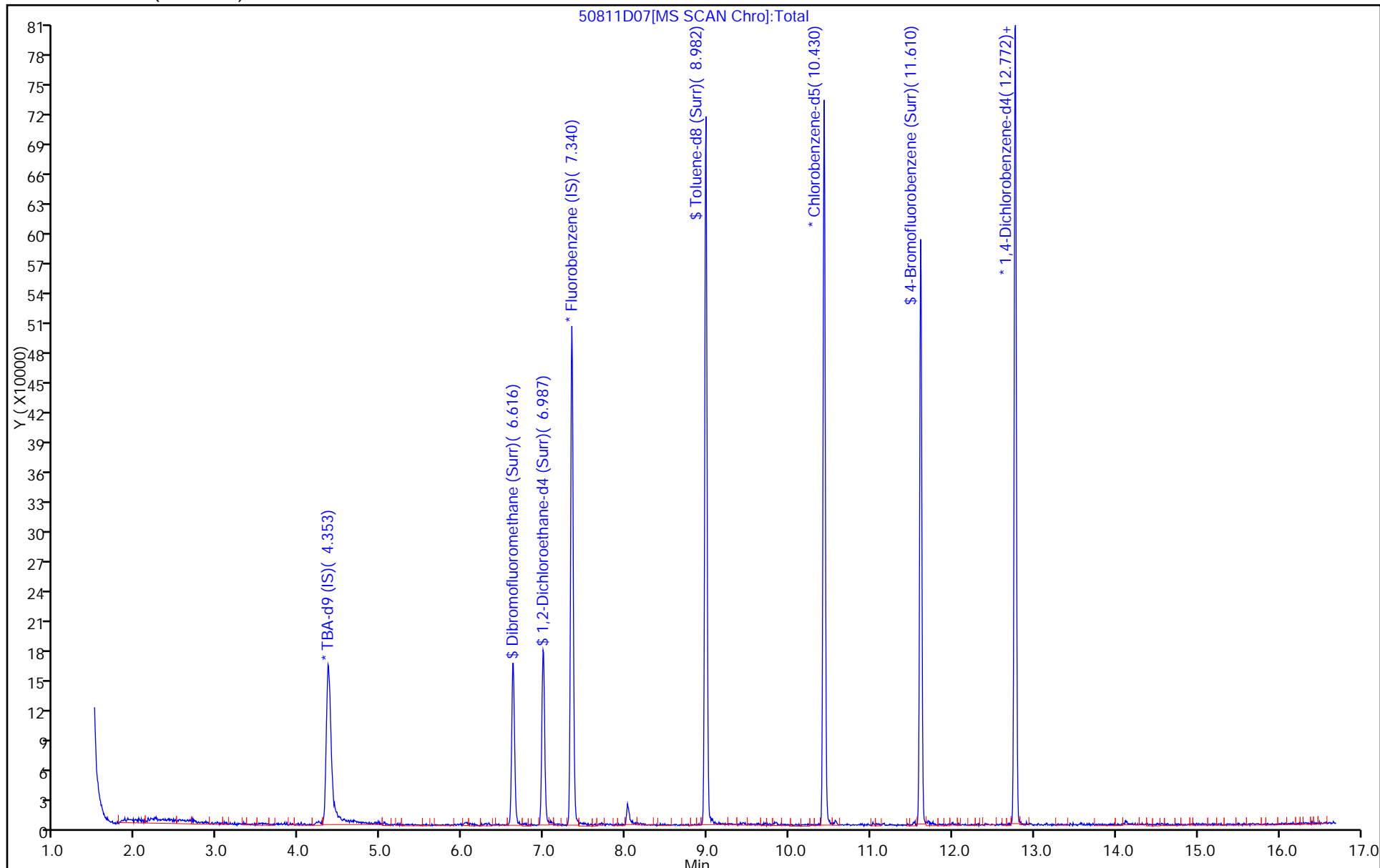
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D07.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 11-Aug-2017 04:11:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-007  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:34 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 11-Aug-2017 04:44:33

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.8	97.51
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.6	101.18
\$ 7 Toluene-d8 (Surr)	50.0	42.1	84.24
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.5	103.04

TestAmerica Pittsburgh

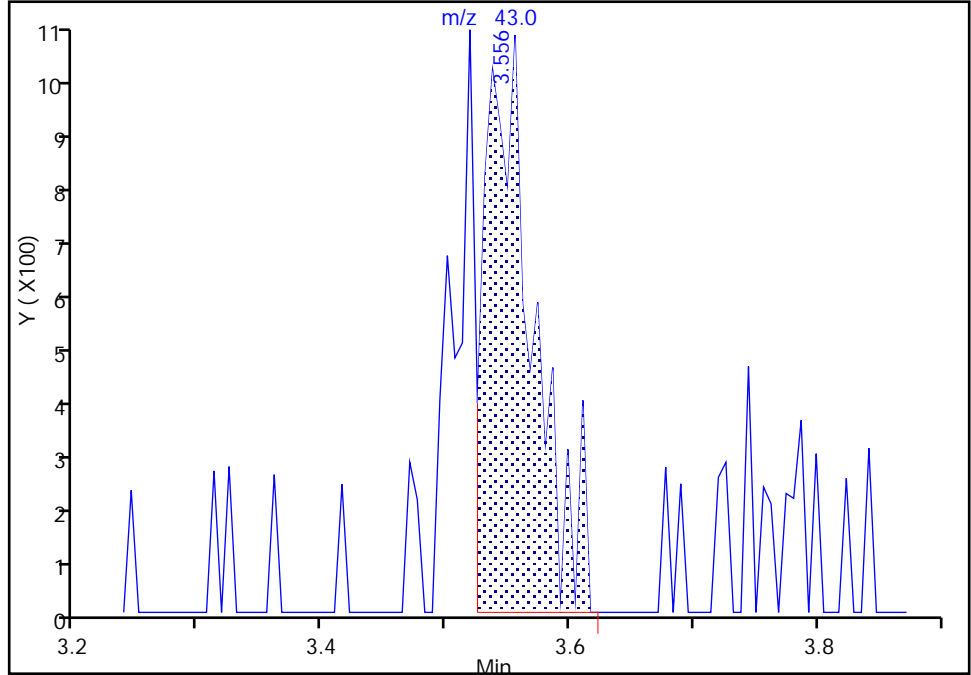
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D07.D  
Injection Date: 11-Aug-2017 04:11:30 Instrument ID: CHHP5  
Lims ID: MB  
Client ID:  
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP5 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

Signal: 1

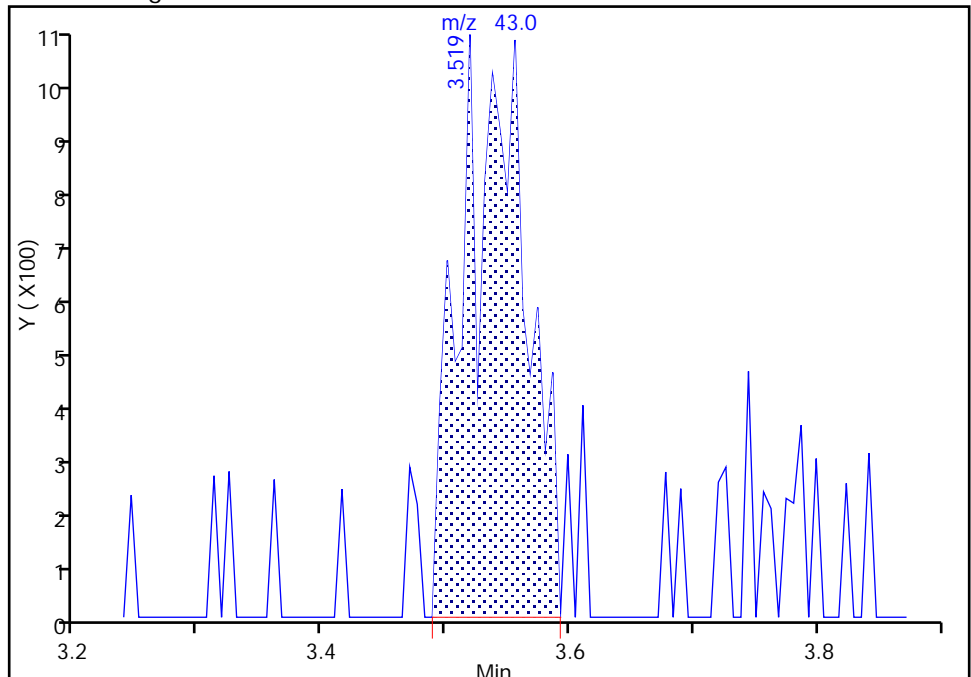
RT: 3.56  
Area: 2924  
Amount: 2.049348  
Amount Units: ng

Processing Integration Results



RT: 3.52  
Area: 3805  
Amount: 2.666816  
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 11-Aug-2017 04:42:54  
Audit Action: Manually Integrated

Audit Reason: Poor chromatography



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-220320/6  
 Matrix: Water Lab File ID: 50816D06.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/17/2017 02:11  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220320 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.38
75-01-4	Vinyl chloride	1.0	U	1.0	0.17
74-83-9	Bromomethane	1.0	U	1.0	0.59
75-00-3	Chloroethane	1.0	U	1.0	0.58
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.32
67-64-1	Acetone	5.0	U	5.0	3.1
75-15-0	Carbon disulfide	1.0	U	1.0	0.53
75-09-2	Methylene Chloride	1.0	U	1.0	0.94
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.20
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.20
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.34
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.30
74-97-5	Bromochloromethane	1.0	U	1.0	0.36
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.27
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.27
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.56
71-43-2	Benzene	1.0	U	1.0	0.18
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.24
79-01-6	Trichloroethene	1.0	U	1.0	0.20
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.35
75-27-4	Bromodichloromethane	1.0	U	1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.2
108-88-3	Toluene	1.0	U	1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.22
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.31
127-18-4	Tetrachloroethene	1.0	U	1.0	0.24
591-78-6	2-Hexanone	5.0	U	5.0	2.0
124-48-1	Dibromochloromethane	1.0	U	1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.51
108-90-7	Chlorobenzene	1.0	U	1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.49
100-41-4	Ethylbenzene	1.0	U	1.0	0.25
1330-20-7	Xylenes, Total	2.0	U	2.0	0.27
100-42-5	Styrene	1.0	U	1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-220320/6  
 Matrix: Water Lab File ID: 50816D06.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/17/2017 02:11  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220320 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.37
107-13-1	Acrylonitrile	20	U	20	3.3
123-91-1	1,4-Dioxane	200	U	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	91		73-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D06.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 17-Aug-2017 02:11:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-006  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:41 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf Date: 17-Aug-2017 03:19:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.341	0.017	0	318507	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.334	0.005	99	631722	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.430	-0.001	85	158389	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.767	0.005	96	224718	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	92	148665	50.0	48.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.992	6.986	0.006	0	190039	50.0	51.3	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.975	0.006	93	576231	50.0	45.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.609	0.001	87	222269	50.0	48.8	
11 Dichlorodifluoromethane	85		1.675					ND	
12 Chloromethane	50		1.821					ND	
13 Vinyl chloride	62		1.967					ND	
14 Butadiene	39		1.997					ND	
15 Bromomethane	94		2.326					ND	
16 Chloroethane	64		2.460					ND	
17 Dichlorofluoromethane	67		2.733					ND	
18 Trichlorofluoromethane	101		2.794					ND	
19 Ethanol	45		2.821					ND	
20 Ethyl ether	59		3.123					ND	
21 Acrolein	56		3.299					ND	
22 1,1-Dichloroethene	96		3.415					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.494					ND	
24 Acetone	43		3.524					ND	M
25 Iodomethane	142		3.609					ND	
26 Carbon disulfide	76		3.701					ND	
27 Isopropyl alcohol	45		3.806					ND	
29 Acetonitrile	41		3.964					ND	
28 3-Chloro-1-propene	76		4.005					ND	
30 Methyl acetate	43		4.035					ND	
31 Methylene Chloride	84		4.218					ND	
32 2-Methyl-2-propanol	59		4.504					ND	
33 Acrylonitrile	53		4.607					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.631					ND	
35 Methyl tert-butyl ether	73		4.656					ND	
36 Hexane	57		5.051					ND	
37 1,1-Dichloroethane	63		5.264					ND	
38 Vinyl acetate	43		5.319					ND	
41 Isopropyl ether	45		5.363					ND	
39 2-Chloro-1,3-butadiene	53		5.363					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.831					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.000					ND	
45 cis-1,2-Dichloroethene	96		6.006					ND	
46 2-Butanone (MEK)	43		6.018					ND	
48 Ethyl acetate	43		6.093					ND	
47 Propionitrile	54		6.099					ND	
50 Methacrylonitrile	41		6.269					ND	
49 Chlorobromomethane	128		6.292					ND	
51 Tetrahydrofuran	42		6.304					ND	
52 Chloroform	83		6.432					ND	
53 1,1,1-Trichloroethane	97		6.590					ND	
54 Cyclohexane	56		6.663					ND	
56 Carbon tetrachloride	117		6.761					ND	
55 1,1-Dichloropropene	75		6.779					ND	
57 Isobutyl alcohol	41		6.980					ND	
58 Benzene	78		6.992					ND	
59 1,2-Dichloroethane	62		7.065					ND	
151 Isooctane	57		7.145					ND	
61 Tert-amyl methyl ether	73		7.170					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.351					ND	
63 n-Butanol	56		7.687					ND	
64 Trichloroethene	130		7.722					ND	
65 Ethyl acrylate	55		7.845					ND	
66 Methylcyclohexane	83		7.953					ND	
67 1,2-Dichloropropane	63		7.989					ND	
68 Dibromomethane	93		8.081					ND	
70 1,4-Dioxane	88		8.081					ND	
69 Methyl methacrylate	69		8.082					ND	
71 Dichlorobromomethane	83		8.275					ND	
73 2-Chloroethyl vinyl ether	63		8.573					ND	
74 cis-1,3-Dichloropropene	75		8.719					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.872					ND	
76 Toluene	91		9.048					ND	
77 trans-1,3-Dichloropropene	75		9.291					ND	
78 Ethyl methacrylate	69		9.352					ND	
79 1,1,2-Trichloroethane	97		9.486					ND	
80 Tetrachloroethene	164		9.553					ND	
81 1,3-Dichloropropane	76		9.644					ND	
82 2-Hexanone	43		9.705					ND	
83 n-Butyl acetate	43		9.828					ND	
84 Chlorodibromomethane	129		9.857					ND	
85 Ethylene Dibromide	107		9.973					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.429					ND	
87 Chlorobenzene	112		10.453					ND	
88 4-Chlorobenzotrifluoride	180		10.520					ND	
89 1,1,1,2-Tetrachloroethane	131		10.551					ND	
90 Ethylbenzene	106		10.557					ND	
91 m-Xylene & p-Xylene	106		10.684					ND	
92 o-Xylene	106		11.068					ND	
93 Styrene	104		11.086					ND	
95 Cyclohexanol	57		11.189					ND	
94 Bromoform	173		11.268					ND	
96 2-Chlorobenzotrifluoride	180		11.341					ND	
97 Isopropylbenzene	105		11.433					ND	
98 Cyclohexanone	55		11.532					ND	
99 1,1,2,2-Tetrachloroethane	83		11.749					ND	
100 Bromobenzene	156		11.749					ND	
102 trans-1,4-Dichloro-2-buten	53		11.792					ND	
101 1,2,3-Trichloropropane	110		11.804					ND	
103 N-Propylbenzene	120		11.852					ND	
104 2-Chlorotoluene	126		11.944					ND	
105 3-Chlorotoluene	126		12.004					ND	
106 1,3,5-Trimethylbenzene	105		12.035					ND	
107 4-Chlorotoluene	126		12.065					ND	
108 tert-Butylbenzene	119		12.351					ND	
110 1,2,4-Trimethylbenzene	105		12.406					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.570					ND	
113 1,3-Dichlorobenzene	146		12.692					ND	
114 4-Isopropyltoluene	119		12.728					ND	
115 1,4-Dichlorobenzene	146		12.795					ND	
116 2,4-Dichloro-1-(triflourom	214		12.820					ND	
117 1,2,3-Trimethylbenzene	105		12.821					ND	
118 2,5-Dichlorobenzotrifluori	214		12.862					ND	
119 Benzyl chloride	91		12.913					ND	
120 n-Butylbenzene	91		13.136					ND	
121 1,2-Dichlorobenzene	146		13.148					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.939					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180	14.128	14.129	-0.001	1	741		0.1593	
125 2,3- & 3,4- Dichlorotoluen	125		14.505					ND	
126 1,2,4-Trichlorobenzene	180		14.760					ND	
127 Hexachlorobutadiene	225		14.912					ND	
128 Naphthalene	128	15.022	15.028	-0.006	1	1489		0.1286	
129 1,2,3-Trichlorobenzene	180		15.253					ND	
131 2,4,5-Trichlorotoluene	159		16.026					ND	
130 2,3,6-Trichlorotoluene	159		16.123					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42	6.305	6.253	0.052	7	274		0	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

**QC Flag Legend**

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00072

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00071

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D06.D

Injection Date: 17-Aug-2017 02:11:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

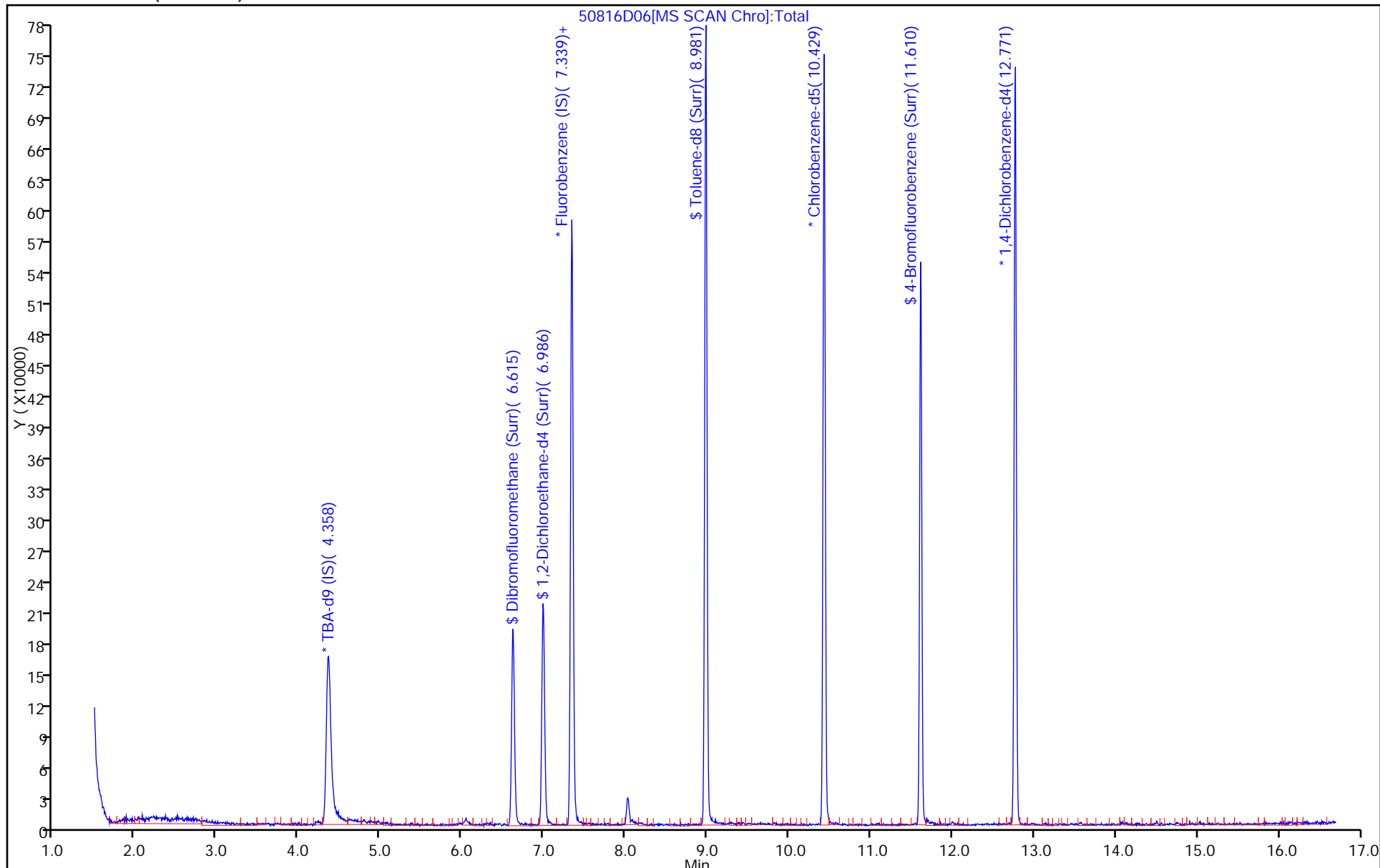
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D06.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 17-Aug-2017 02:11:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-006  
 Misc. Info.: MB  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:41 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf Date: 17-Aug-2017 03:19:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.9	97.82
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.3	102.52
\$ 7 Toluene-d8 (Surr)	50.0	45.7	91.42
\$ 8 4-Bromofluorobenzene (Surr)	50.0	48.8	97.64



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-219487/3  
 Matrix: Water Lab File ID: 50809D03.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 02:27  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.90		1.0	0.38
75-01-4	Vinyl chloride	10.6		1.0	0.17
74-83-9	Bromomethane	11.6		1.0	0.59
75-00-3	Chloroethane	10.2		1.0	0.58
75-35-4	1,1-Dichloroethene	9.99		1.0	0.32
67-64-1	Acetone	24.0		5.0	3.1
75-15-0	Carbon disulfide	7.53		1.0	0.53
75-09-2	Methylene Chloride	9.27		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	9.92		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.22		1.0	0.20
75-34-3	1,1-Dichloroethane	9.81		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.35		1.0	0.30
74-97-5	Bromochloromethane	9.13		1.0	0.36
78-93-3	2-Butanone (MEK)	20.6		5.0	2.6
67-66-3	Chloroform	9.59		1.0	0.27
71-55-6	1,1,1-Trichloroethane	9.63		1.0	0.27
56-23-5	Carbon tetrachloride	9.65		1.0	0.56
71-43-2	Benzene	9.56		1.0	0.18
107-06-2	1,2-Dichloroethane	9.46		1.0	0.24
79-01-6	Trichloroethene	9.21		1.0	0.20
78-87-5	1,2-Dichloropropane	9.42		1.0	0.35
75-27-4	Bromodichloromethane	8.74		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	9.26		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	19.4		5.0	2.2
108-88-3	Toluene	10.6		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.45		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.65		1.0	0.31
127-18-4	Tetrachloroethene	10.4		1.0	0.24
591-78-6	2-Hexanone	19.8		5.0	2.0
124-48-1	Dibromochloromethane	9.65		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.41		1.0	0.51
108-90-7	Chlorobenzene	10.1		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.90		1.0	0.49
100-41-4	Ethylbenzene	9.82		1.0	0.25
1330-20-7	Xylenes, Total	20.1		2.0	0.27
100-42-5	Styrene	10.1		1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-219487/3  
 Matrix: Water Lab File ID: 50809D03.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 02:27  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.69		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	9.50		1.0	0.37
107-13-1	Acrylonitrile	94.1		20	3.3
123-91-1	1,4-Dioxane	160	J	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		65-121
2037-26-5	Toluene-d8 (Surr)	101		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	87		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 09-Aug-2017 02:27:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-003  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 02:48:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.373	-0.008	0	237454	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.336	0.004	98	570077	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.426	0.005	86	128291	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.768	0.005	93	170473	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.616	6.618	-0.002	93	119679	50.0	43.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.981	6.983	-0.002	0	151772	50.0	45.4	
\$ 7 Toluene-d8 (Surr)	98	8.977	8.978	-0.001	93	518172	50.0	50.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.612	-0.001	85	190271	50.0	51.6	
11 Dichlorodifluoromethane	85	1.689	1.684	0.005	99	170072	50.0	51.3	
12 Chloromethane	50	1.823	1.830	-0.007	100	164868	50.0	49.5	
13 Vinyl chloride	62	1.969	1.970	-0.001	96	178915	50.0	52.9	
14 Butadiene	39	1.993	1.988	0.005	93	157644	50.0	51.3	
15 Bromomethane	94	2.303	2.292	0.011	90	92806	50.0	58.1	
16 Chloroethane	64	2.467	2.457	0.010	99	94490	50.0	50.8	
17 Dichlorofluoromethane	67	2.741	2.743	-0.002	96	252350	50.0	53.7	
18 Trichlorofluoromethane	101	2.796	2.791	0.005	98	213529	50.0	51.4	
20 Ethyl ether	59	3.124	3.120	0.004	89	135391	50.0	50.1	
21 Acrolein	56	3.313	3.302	0.011	98	54991	150.0	80.8	
22 1,1-Dichloroethene	96	3.416	3.424	-0.008	96	139431	50.0	50.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.508	3.497	0.011	92	146692	50.0	47.9	
24 Acetone	43	3.526	3.533	-0.007	99	179035	100.0	120.1	
25 Iodomethane	142	3.611	3.619	-0.008	98	200882	50.0	45.8	
26 Carbon disulfide	76	3.714	3.698	0.016	98	230630	50.0	37.7	
28 3-Chloro-1-propene	76	4.007	4.002	0.004	92	83233	50.0	46.1	
30 Methyl acetate	43	4.031	4.026	0.005	97	289505	100.0	98.1	
31 Methylene Chloride	84	4.219	4.221	-0.002	89	160975	50.0	46.3	
32 2-Methyl-2-propanol	59	4.493	4.507	-0.014	93	132683	500.0	472.5	
33 Acrylonitrile	53	4.609	4.604	0.005	99	675305	500.0	470.5	
34 trans-1,2-Dichloroethene	96	4.639	4.635	0.004	98	157808	50.0	49.6	
35 Methyl tert-butyl ether	73	4.651	4.659	-0.008	96	393232	50.0	46.1	
36 Hexane	57	5.059	5.048	0.011	92	188107	50.0	46.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.266	5.267	-0.001	97	271126	50.0	49.0	
38 Vinyl acetate	43	5.321	5.322	-0.001	97	218852	50.0	38.9	
44 2,2-Dichloropropane	97	6.014	6.009	0.005	77	32676	50.0	46.4	
45 cis-1,2-Dichloroethene	96	6.002	6.009	-0.007	81	170056	50.0	46.8	
46 2-Butanone (MEK)	43	6.020	6.022	-0.002	99	218128	100.0	102.8	
49 Chlorobromomethane	128	6.294	6.289	0.005	92	73804	50.0	45.7	
51 Tetrahydrofuran	42	6.306	6.307	-0.001	85	107311	100.0	86.8	
52 Chloroform	83	6.434	6.435	-0.001	93	264697	50.0	47.9	
53 1,1,1-Trichloroethane	97	6.592	6.593	-0.001	99	201326	50.0	48.2	
54 Cyclohexane	56	6.665	6.660	0.005	89	244205	50.0	47.3	
56 Carbon tetrachloride	117	6.762	6.758	0.004	78	167836	50.0	48.3	
55 1,1-Dichloropropene	75	6.781	6.776	0.005	97	222110	50.0	49.2	
57 Isobutyl alcohol	41	6.987	6.983	0.004	91	117662	1250.0	1037.3	
58 Benzene	78	6.993	6.995	-0.002	97	662875	50.0	47.8	
59 1,2-Dichloroethane	62	7.073	7.068	0.005	98	191115	50.0	47.3	
62 n-Heptane	43	7.352	7.354	-0.002	85	166256	50.0	50.9	
64 Trichloroethene	130	7.724	7.725	-0.001	98	160715	50.0	46.1	
66 Methylcyclohexane	83	7.955	7.956	-0.001	88	244628	50.0	46.4	
67 1,2-Dichloropropane	63	7.991	7.993	-0.002	93	152089	50.0	47.1	
70 1,4-Dioxane	88	8.076	8.078	-0.002	39	26200	1000.0	798.3	
68 Dibromomethane	93	8.082	8.084	-0.002	97	86097	50.0	45.5	
71 Dichlorobromomethane	83	8.277	8.279	-0.002	99	162319	50.0	43.7	
73 2-Chloroethyl vinyl ether	63	8.575	8.577	-0.002	93	198479	100.0	85.5	
74 cis-1,3-Dichloropropene	75	8.721	8.717	0.004	95	208712	50.0	46.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.873	8.875	-0.002	96	319257	100.0	97.0	
76 Toluene	91	9.050	9.045	0.005	99	679007	50.0	53.1	
77 trans-1,3-Dichloropropene	75	9.293	9.294	-0.001	94	164467	50.0	47.3	
78 Ethyl methacrylate	69	9.354	9.355	-0.001	88	199116	50.0	47.4	
79 1,1,2-Trichloroethane	97	9.488	9.489	-0.001	91	128516	50.0	48.2	
80 Tetrachloroethene	164	9.561	9.556	0.005	97	127192	50.0	52.1	
81 1,3-Dichloropropane	76	9.646	9.647	-0.001	90	241583	50.0	49.0	
82 2-Hexanone	43	9.707	9.702	0.005	96	249493	100.0	98.9	
84 Chlorodibromomethane	129	9.859	9.860	-0.001	89	108690	50.0	48.3	
85 Ethylene Dibromide	107	9.974	9.970	0.004	98	128540	50.0	47.0	
86 3-Chlorobenzotrifluoride	180	10.431	10.432	-0.001	88	246381	50.0	55.9	
87 Chlorobenzene	112	10.461	10.456	0.005	95	420770	50.0	50.5	
88 4-Chlorobenzotrifluoride	180	10.516	10.517	-0.001	95	235598	50.0	57.9	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.548	0.004	90	131099	50.0	49.5	
90 Ethylbenzene	106	10.558	10.560	-0.002	98	228284	50.0	49.1	
91 m-Xylene & p-Xylene	106	10.692	10.688	0.004	0	285890	50.0	50.3	
92 o-Xylene	106	11.069	11.071	-0.002	96	271075	50.0	50.1	
93 Styrene	104	11.088	11.089	-0.001	94	462037	50.0	50.4	
94 Bromoform	173	11.276	11.272	0.004	97	60829	50.0	43.5	
96 2-Chlorobenzotrifluoride	180	11.343	11.339	0.005	96	237858	50.0	56.4	
97 Isopropylbenzene	105	11.434	11.436	-0.002	96	695906	50.0	52.7	
99 1,1,2,2-Tetrachloroethane	83	11.751	11.752	-0.001	82	187477	50.0	47.5	
100 Bromobenzene	156	11.751	11.752	-0.001	94	152523	50.0	46.1	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.789	-0.002	64	48154	50.0	48.3	
101 1,2,3-Trichloropropane	110	11.806	11.807	-0.001	83	66104	50.0	48.4	
103 N-Propylbenzene	120	11.854	11.856	-0.002	99	189185	50.0	50.0	
104 2-Chlorotoluene	126	11.939	11.941	-0.002	96	166321	50.0	50.9	
105 3-Chlorotoluene	126	12.006	12.008	-0.002	97	190660	50.0	53.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.037	12.038	-0.001	94	543931	50.0	50.3	
107 4-Chlorotoluene	126	12.067	12.062	0.005	98	174554	50.0	49.5	
108 tert-Butylbenzene	119	12.353	12.348	0.005	93	452017	50.0	50.0	
110 1,2,4-Trimethylbenzene	105	12.408	12.409	-0.001	97	546643	50.0	49.7	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.458	-0.002	96	149045	50.0	54.1	
112 sec-Butylbenzene	105	12.572	12.573	-0.001	94	652698	50.0	51.7	
113 1,3-Dichlorobenzene	146	12.694	12.695	-0.001	97	285624	50.0	48.3	
114 4-Isopropyltoluene	119	12.730	12.732	-0.002	97	532569	50.0	50.7	
115 1,4-Dichlorobenzene	146	12.797	12.792	0.005	95	288817	50.0	47.6	
116 2,4-Dichloro-1-(trifluorom	214	12.821	12.823	-0.002	95	135054	50.0	52.6	
118 2,5-Dichlorobenzotrifluori	214	12.864	12.865	-0.001	0	143666	50.0	51.8	
120 n-Butylbenzene	91	13.138	13.139	-0.001	97	440924	50.0	51.4	
121 1,2-Dichlorobenzene	146	13.150	13.151	-0.001	96	265774	50.0	47.2	
122 1,2-Dibromo-3-Chloropropan	75	13.941	13.948	-0.007	78	26839	50.0	42.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.087	14.082	0.005	0	599094	150.0	167.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.507	14.502	0.005	0	409293	100.0	110.7	
126 1,2,4-Trichlorobenzene	180	14.768	14.763	0.005	93	125175	50.0	48.5	
127 Hexachlorobutadiene	225	14.914	14.916	-0.002	97	51401	50.0	54.5	
128 Naphthalene	128	15.030	15.031	-0.001	97	419975	50.0	47.8	
129 1,2,3-Trichlorobenzene	180	15.261	15.262	-0.001	95	115524	50.0	49.0	
131 2,4,5-Trichlorotoluene	159	16.027	16.029	-0.002	0	64643	50.0	57.7	
130 2,3,6-Trichlorotoluene	159	16.125	16.120	0.005	94	61186	50.0	58.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.4	
S 133 Xylenes, Total	106				0		100.0	100.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	93.5	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00014	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D03.D

Injection Date: 09-Aug-2017 02:27:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

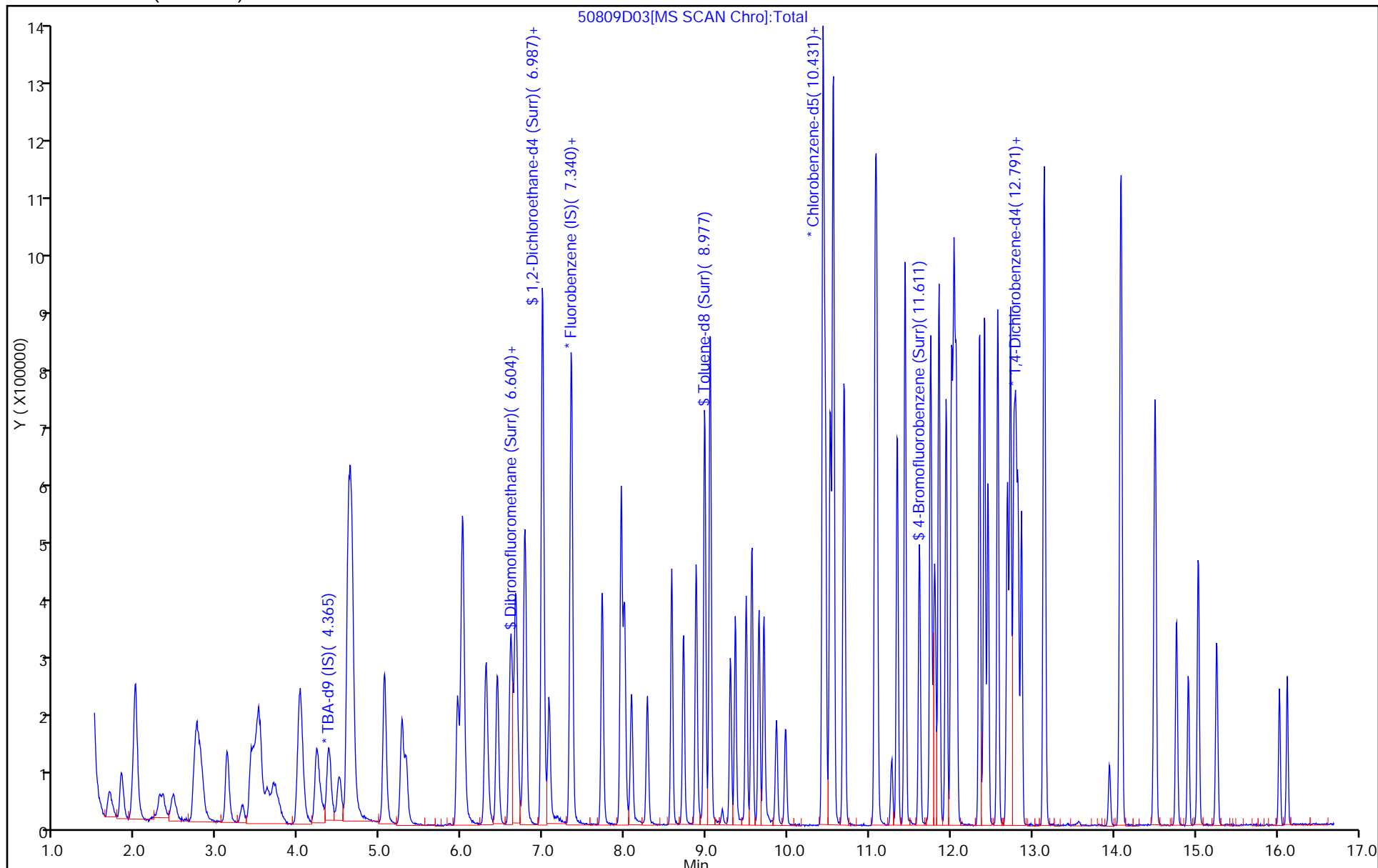
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 09-Aug-2017 02:27:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017948-003  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 02:48:05

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	43.6	87.26
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	45.4	90.73
\$ 7 Toluene-d8 (Surr)	50.0	50.7	101.50
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.6	103.20

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-219617/3  
 Matrix: Water Lab File ID: 50810D03.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 00:56  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.77		1.0	0.38
75-01-4	Vinyl chloride	10.2		1.0	0.17
74-83-9	Bromomethane	10.4		1.0	0.59
75-00-3	Chloroethane	10.4		1.0	0.58
75-35-4	1,1-Dichloroethene	9.93		1.0	0.32
67-64-1	Acetone	19.4		5.0	3.1
75-15-0	Carbon disulfide	7.35		1.0	0.53
75-09-2	Methylene Chloride	9.38		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	9.63		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.57		1.0	0.20
75-34-3	1,1-Dichloroethane	9.55		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.52		1.0	0.30
74-97-5	Bromochloromethane	9.22		1.0	0.36
78-93-3	2-Butanone (MEK)	17.6		5.0	2.6
67-66-3	Chloroform	9.44		1.0	0.27
71-55-6	1,1,1-Trichloroethane	9.69		1.0	0.27
56-23-5	Carbon tetrachloride	9.49		1.0	0.56
71-43-2	Benzene	9.63		1.0	0.18
107-06-2	1,2-Dichloroethane	9.62		1.0	0.24
79-01-6	Trichloroethene	9.16		1.0	0.20
78-87-5	1,2-Dichloropropane	9.15		1.0	0.35
75-27-4	Bromodichloromethane	8.63		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	9.21		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	16.2		5.0	2.2
108-88-3	Toluene	10.2		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.22		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.59		1.0	0.31
127-18-4	Tetrachloroethene	9.84		1.0	0.24
591-78-6	2-Hexanone	16.2		5.0	2.0
124-48-1	Dibromochloromethane	9.00		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.12		1.0	0.51
108-90-7	Chlorobenzene	9.81		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.83		1.0	0.49
100-41-4	Ethylbenzene	9.91		1.0	0.25
1330-20-7	Xylenes, Total	19.1		2.0	0.27
100-42-5	Styrene	9.67		1.0	0.22



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-219617/3  
 Matrix: Water Lab File ID: 50810D03.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 00:56  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.62		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	9.34		1.0	0.37
107-13-1	Acrylonitrile	92.9		20	3.3
123-91-1	1,4-Dioxane	170	J	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		65-121
2037-26-5	Toluene-d8 (Surr)	103		73-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 10-Aug-2017 00:56:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-003  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 01:19:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.378	4.376	0.002	0	259901	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.333	0.002	99	550580	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.423	0.008	85	126201	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.771	-0.004	95	174523	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.617	6.615	0.002	93	121152	50.0	45.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.986	-0.004	0	156809	50.0	48.5	
\$ 7 Toluene-d8 (Surr)	98	8.977	8.975	0.002	92	516810	50.0	51.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.609	0.002	86	183124	50.0	50.5	
11 Dichlorodifluoromethane	85	1.689	1.681	0.008	99	155622	50.0	48.6	
12 Chloromethane	50	1.823	1.827	-0.004	99	157096	50.0	48.8	
13 Vinyl chloride	62	1.969	1.967	0.002	98	167155	50.0	51.2	
14 Butadiene	39	1.993	1.991	0.002	97	145507	50.0	49.1	
15 Bromomethane	94	2.291	2.283	0.008	89	80013	50.0	51.8	
16 Chloroethane	64	2.444	2.448	-0.004	99	93703	50.0	52.2	
17 Dichlorofluoromethane	67	2.742	2.734	0.008	97	248093	50.0	54.7	
18 Trichlorofluoromethane	101	2.790	2.788	0.002	97	210552	50.0	52.5	
20 Ethyl ether	59	3.113	3.111	0.002	90	129309	50.0	49.5	
21 Acrolein	56	3.313	3.299	0.014	98	51332	150.0	78.1	
22 1,1-Dichloroethene	96	3.417	3.409	0.008	97	133893	50.0	49.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.490	3.494	-0.004	93	141294	50.0	47.8	
24 Acetone	43	3.526	3.524	0.002	100	139455	100.0	96.9	
25 Iodomethane	142	3.624	3.622	0.002	97	197603	50.0	46.7	
26 Carbon disulfide	76	3.715	3.713	0.002	99	217496	50.0	36.8	
28 3-Chloro-1-propene	76	4.001	4.005	-0.004	93	80018	50.0	45.9	
30 Methyl acetate	43	4.025	4.029	-0.004	97	281459	100.0	98.7	
31 Methylene Chloride	84	4.226	4.218	0.008	88	157202	50.0	46.9	
32 2-Methyl-2-propanol	59	4.506	4.504	0.002	92	132791	500.0	432.0	
33 Acrylonitrile	53	4.609	4.607	0.002	100	643687	500.0	464.3	
34 trans-1,2-Dichloroethene	96	4.634	4.632	0.002	98	147855	50.0	48.1	
35 Methyl tert-butyl ether	73	4.658	4.650	0.008	95	393878	50.0	47.8	
36 Hexane	57	5.047	5.051	-0.004	93	175178	50.0	44.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.266	5.258	0.008	97	255050	50.0	47.8	
38 Vinyl acetate	43	5.315	5.319	-0.004	97	207822	50.0	38.3	
44 2,2-Dichloropropane	97	6.002	6.000	0.002	61	32528	50.0	47.8	
45 cis-1,2-Dichloroethene	96	6.015	6.000	0.015	79	167272	50.0	47.6	
46 2-Butanone (MEK)	43	6.027	6.025	0.002	98	179854	100.0	87.8	
49 Chlorobromomethane	128	6.288	6.286	0.002	95	71971	50.0	46.1	
51 Tetrahydrofuran	42	6.313	6.305	0.008	85	102001	100.0	85.5	
52 Chloroform	83	6.434	6.432	0.002	93	251785	50.0	47.2	
53 1,1,1-Trichloroethane	97	6.592	6.591	0.001	99	195598	50.0	48.5	
54 Cyclohexane	56	6.659	6.657	0.002	90	228706	50.0	45.9	
56 Carbon tetrachloride	117	6.763	6.761	0.002	96	159414	50.0	47.5	
55 1,1-Dichloropropene	75	6.775	6.779	-0.004	97	209431	50.0	48.0	
58 Benzene	78	6.994	6.992	0.002	97	644793	50.0	48.2	
57 Isobutyl alcohol	41	6.988	6.992	-0.004	70	115968	1250.0	1058.5	
59 1,2-Dichloroethane	62	7.067	7.071	-0.004	98	187756	50.0	48.1	
62 n-Heptane	43	7.353	7.351	0.002	88	144790	50.0	45.9	
64 Trichloroethene	130	7.718	7.722	-0.004	99	154369	50.0	45.8	
66 Methylcyclohexane	83	7.955	7.953	0.002	89	228902	50.0	44.9	
67 1,2-Dichloropropane	63	7.992	7.990	0.002	96	142629	50.0	45.8	
70 1,4-Dioxane	88	8.083	8.075	0.008	41	26942	1000.0	849.9	
68 Dibromomethane	93	8.083	8.081	0.002	97	81481	50.0	44.6	
71 Dichlorobromomethane	83	8.272	8.276	-0.004	99	154658	50.0	43.1	
73 2-Chloroethyl vinyl ether	63	8.576	8.574	0.002	93	186105	100.0	83.0	
74 cis-1,3-Dichloropropene	75	8.716	8.720	-0.004	95	200532	50.0	46.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.874	8.872	0.002	96	261413	100.0	80.8	
76 Toluene	91	9.044	9.048	-0.004	99	642581	50.0	51.1	
77 trans-1,3-Dichloropropene	75	9.294	9.292	0.002	92	157890	50.0	46.1	
78 Ethyl methacrylate	69	9.354	9.352	0.002	88	190924	50.0	46.2	
79 1,1,2-Trichloroethane	97	9.488	9.486	0.002	91	125638	50.0	47.9	
80 Tetrachloroethene	164	9.555	9.559	-0.004	96	118109	50.0	49.2	
81 1,3-Dichloropropane	76	9.646	9.644	0.002	89	229132	50.0	47.3	
82 2-Hexanone	43	9.701	9.705	-0.004	97	200849	100.0	80.9	
84 Chlorodibromomethane	129	9.859	9.857	0.002	91	99690	50.0	45.0	
85 Ethylene Dibromide	107	9.969	9.973	-0.004	99	122579	50.0	45.6	
86 3-Chlorobenzotrifluoride	180	10.431	10.429	0.002	88	230795	50.0	53.2	
87 Chlorobenzene	112	10.455	10.460	-0.005	95	401642	50.0	49.0	
88 4-Chlorobenzotrifluoride	180	10.516	10.520	-0.004	96	224101	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.551	0.002	89	128035	50.0	49.2	
90 Ethylbenzene	106	10.559	10.557	0.002	98	226536	50.0	49.5	
91 m-Xylene & p-Xylene	106	10.687	10.691	-0.004	0	267815	50.0	47.9	
92 o-Xylene	106	11.070	11.068	0.002	96	254256	50.0	47.7	
93 Styrene	104	11.088	11.092	-0.004	94	435773	50.0	48.4	
94 Bromoform	173	11.277	11.275	0.002	95	59355	50.0	43.1	
96 2-Chlorobenzotrifluoride	180	11.338	11.342	-0.004	97	225082	50.0	54.2	
97 Isopropylbenzene	105	11.435	11.439	-0.004	96	651750	50.0	50.1	
99 1,1,2,2-Tetrachloroethane	83	11.751	11.749	0.002	84	181298	50.0	46.7	
100 Bromobenzene	156	11.751	11.749	0.002	92	152695	50.0	45.1	
102 trans-1,4-Dichloro-2-buten	53	11.788	11.786	0.002	73	46974	50.0	46.0	
101 1,2,3-Trichloropropane	110	11.806	11.810	-0.004	84	64766	50.0	46.3	
103 N-Propylbenzene	120	11.855	11.853	0.002	99	177753	50.0	45.9	
104 2-Chlorotoluene	126	11.940	11.938	0.002	96	150342	50.0	44.9	
105 3-Chlorotoluene	126	12.007	12.005	0.002	96	185668	50.0	51.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.037	12.035	0.002	96	534500	50.0	48.3	
107 4-Chlorotoluene	126	12.062	12.066	-0.004	96	164577	50.0	45.6	
108 tert-Butylbenzene	119	12.347	12.352	-0.005	93	420449	50.0	45.4	
110 1,2,4-Trimethylbenzene	105	12.408	12.406	0.002	97	529145	50.0	47.0	
111 1,2-dichloro-4-(trifluorom	214	12.451	12.455	-0.004	95	142542	50.0	50.5	
112 sec-Butylbenzene	105	12.573	12.577	-0.004	94	613237	50.0	47.5	
113 1,3-Dichlorobenzene	146	12.694	12.692	0.002	97	278754	50.0	46.1	
114 4-Isopropyltoluene	119	12.731	12.729	0.002	97	517366	50.0	48.1	
115 1,4-Dichlorobenzene	146	12.792	12.796	-0.004	95	280848	50.0	45.2	
116 2,4-Dichloro-1-(trifluorom	214	12.822	12.826	-0.004	96	128141	50.0	48.8	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.869	-0.004	0	150561	50.0	53.1	
120 n-Butylbenzene	91	13.138	13.136	0.002	98	409520	50.0	46.7	
121 1,2-Dichlorobenzene	146	13.150	13.149	0.001	97	261602	50.0	45.3	
122 1,2-Dibromo-3-Chloropropan	75	13.941	13.939	0.002	82	27444	50.0	42.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.081	14.085	-0.004	0	578350	150.0	158.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.501	14.505	-0.004	0	393929	100.0	104.1	
126 1,2,4-Trichlorobenzene	180	14.769	14.767	0.002	95	120951	50.0	45.8	
127 Hexachlorobutadiene	225	14.909	14.913	-0.004	96	48856	50.0	50.6	
128 Naphthalene	128	15.030	15.034	-0.004	97	412166	50.0	45.8	
129 1,2,3-Trichlorobenzene	180	15.255	15.259	-0.004	96	116035	50.0	48.1	
131 2,4,5-Trichlorotoluene	159	16.028	16.026	0.002	0	62451	50.0	54.5	
130 2,3,6-Trichlorotoluene	159	16.125	16.123	0.002	97	61427	50.0	57.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.8	
S 133 Xylenes, Total	106				0		100.0	95.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

## Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D03.D

Injection Date: 10-Aug-2017 00:56:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

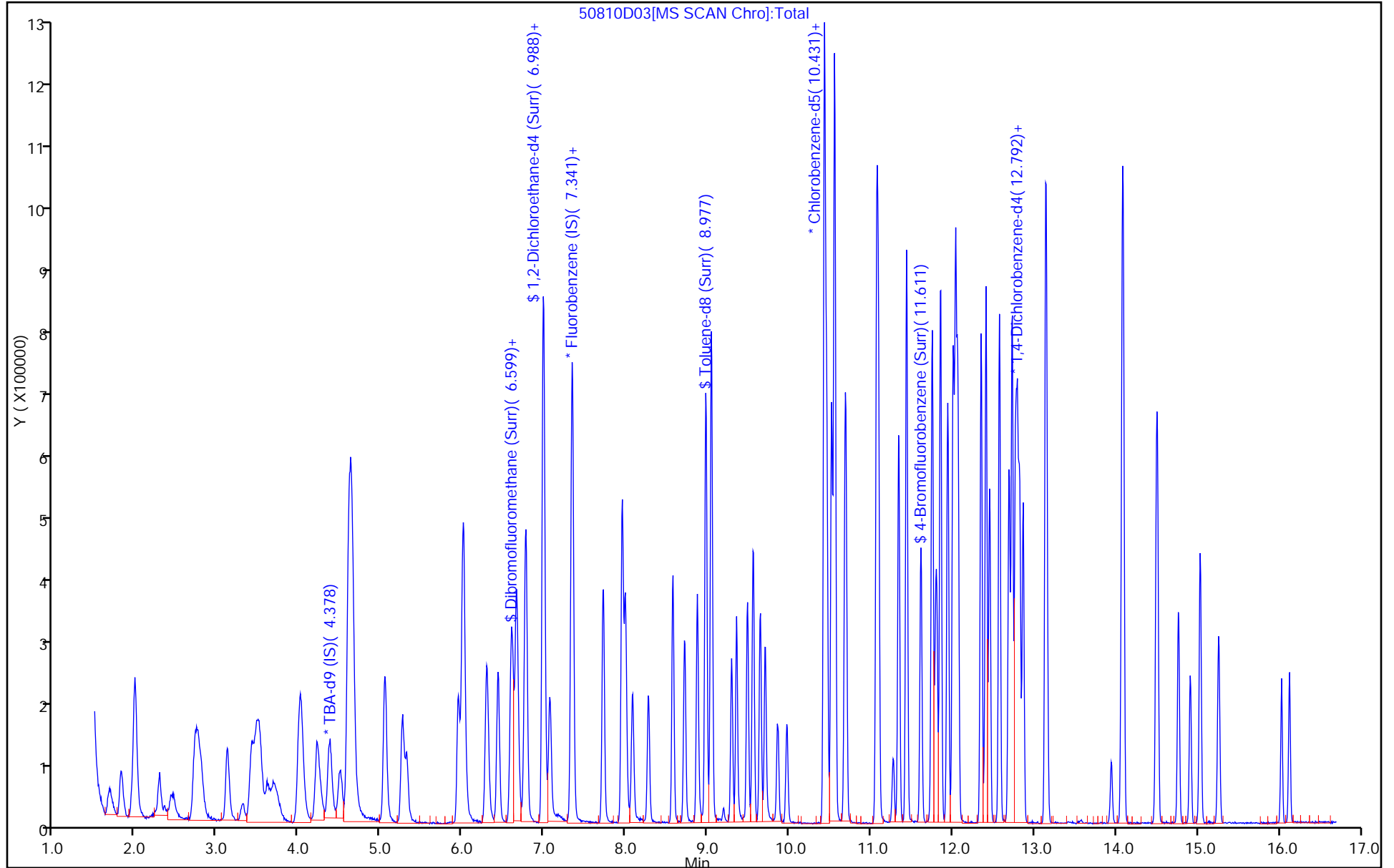
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 10-Aug-2017 00:56:30 ALS Bottle#: 3 Worklist Smp#: 3  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-003  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 01:19:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	45.7	91.47
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.5	97.06
\$ 7 Toluene-d8 (Surr)	50.0	51.5	102.91
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.5	100.96

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-219759/4  
 Matrix: Water Lab File ID: 50811D04.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 03:00  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.24		1.0	0.38
75-01-4	Vinyl chloride	9.95		1.0	0.17
74-83-9	Bromomethane	10.7		1.0	0.59
75-00-3	Chloroethane	9.68		1.0	0.58
75-35-4	1,1-Dichloroethene	9.06		1.0	0.32
67-64-1	Acetone	18.8		5.0	3.1
75-15-0	Carbon disulfide	7.03		1.0	0.53
75-09-2	Methylene Chloride	9.41		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	9.14		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.65		1.0	0.20
75-34-3	1,1-Dichloroethane	9.08		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	8.95		1.0	0.30
74-97-5	Bromochloromethane	9.16		1.0	0.36
78-93-3	2-Butanone (MEK)	18.2		5.0	2.6
67-66-3	Chloroform	9.12		1.0	0.27
71-55-6	1,1,1-Trichloroethane	9.21		1.0	0.27
56-23-5	Carbon tetrachloride	8.77		1.0	0.56
71-43-2	Benzene	9.03		1.0	0.18
107-06-2	1,2-Dichloroethane	9.30		1.0	0.24
79-01-6	Trichloroethene	8.60		1.0	0.20
78-87-5	1,2-Dichloropropane	8.87		1.0	0.35
75-27-4	Bromodichloromethane	8.53		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	8.81		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	16.8		5.0	2.2
108-88-3	Toluene	9.61		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.03		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.87		1.0	0.31
127-18-4	Tetrachloroethene	9.13		1.0	0.24
591-78-6	2-Hexanone	16.7		5.0	2.0
124-48-1	Dibromochloromethane	8.71		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.28		1.0	0.51
108-90-7	Chlorobenzene	9.27		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.19		1.0	0.49
100-41-4	Ethylbenzene	8.89		1.0	0.25
1330-20-7	Xylenes, Total	18.2		2.0	0.27
100-42-5	Styrene	9.11		1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-219759/4  
 Matrix: Water Lab File ID: 50811D04.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/11/2017 03:00  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219759 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.52		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	9.67		1.0	0.37
107-13-1	Acrylonitrile	97.6		20	3.3
123-91-1	1,4-Dioxane	188	J	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		65-121
2037-26-5	Toluene-d8 (Surr)	107		73-120
460-00-4	4-Bromofluorobenzene (Surr)	105		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D04.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 11-Aug-2017 03:00:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-004  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:25 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 11-Aug-2017 03:20:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.365	4.352	0.013	0	242374	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.334	7.339	-0.005	97	527900	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	85	123905	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.766	12.772	-0.006	96	167011	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.610	6.616	-0.006	93	125983	50.0	49.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.987	6.987	0.000	0	153987	50.0	49.7	
\$ 7 Toluene-d8 (Surr)	98	8.976	8.976	0.000	93	527125	50.0	53.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.610	0.001	87	186126	50.0	52.3	
11 Dichlorodifluoromethane	85	1.676	1.676	0.000	100	136114	50.0	44.3	
12 Chloromethane	50	1.822	1.822	0.000	98	142570	50.0	46.2	
13 Vinyl chloride	62	1.968	1.968	0.000	98	155825	50.0	49.8	
14 Butadiene	39	1.999	1.992	0.007	96	134777	50.0	47.4	
15 Bromomethane	94	2.291	2.327	-0.036	90	79054	50.0	53.4	
16 Chloroethane	64	2.461	2.449	0.012	99	83277	50.0	48.4	
17 Dichlorofluoromethane	67	2.747	2.741	0.006	98	224950	50.0	51.7	
18 Trichlorofluoromethane	101	2.790	2.795	-0.005	97	191093	50.0	49.7	M
20 Ethyl ether	59	3.118	3.124	-0.006	89	121016	50.0	48.4	
21 Acrolein	56	3.301	3.313	-0.013	99	93474	150.0	148.2	
22 1,1-Dichloroethene	96	3.428	3.410	0.018	83	117132	50.0	45.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.495	3.495	0.000	92	120225	50.0	42.4	
24 Acetone	43	3.526	3.532	-0.006	99	129669	100.0	93.9	
25 Iodomethane	142	3.617	3.617	0.000	98	173919	50.0	42.8	
26 Carbon disulfide	76	3.702	3.708	-0.006	99	199370	50.0	35.1	
28 3-Chloro-1-propene	76	4.000	4.000	0.000	92	73203	50.0	43.8	
30 Methyl acetate	43	4.024	4.024	0.000	97	287063	100.0	105.0	
31 Methylene Chloride	84	4.213	4.219	-0.006	87	151211	50.0	47.1	
32 2-Methyl-2-propanol	59	4.493	4.493	0.000	92	121988	500.0	425.6	
33 Acrylonitrile	53	4.602	4.602	0.000	99	648465	500.0	487.9	
34 trans-1,2-Dichloroethene	96	4.639	4.633	0.006	97	134599	50.0	45.7	
35 Methyl tert-butyl ether	73	4.657	4.645	0.012	96	381108	50.0	48.3	
36 Hexane	57	5.053	5.046	0.007	93	153843	50.0	40.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.265	5.265	0.000	96	232525	50.0	45.4	
38 Vinyl acetate	43	5.314	5.320	-0.006	97	208365	50.0	40.0	
44 2,2-Dichloropropane	97	6.008	6.001	0.007	57	30722	50.0	47.1	
45 cis-1,2-Dichloroethene	96	6.008	6.008	0.000	80	150753	50.0	44.8	
46 2-Butanone (MEK)	43	6.020	6.020	0.000	99	178422	100.0	90.8	
49 Chlorobromomethane	128	6.287	6.293	-0.006	93	68557	50.0	45.8	
51 Tetrahydrofuran	42	6.306	6.306	0.000	83	98005	100.0	85.6	
52 Chloroform	83	6.433	6.433	0.000	93	233110	50.0	45.6	
53 1,1,1-Trichloroethane	97	6.592	6.598	-0.006	98	178223	50.0	46.0	
54 Cyclohexane	56	6.659	6.665	-0.006	88	212494	50.0	44.5	
56 Carbon tetrachloride	117	6.762	6.762	0.000	96	141199	50.0	43.8	
55 1,1-Dichloropropene	75	6.780	6.774	0.006	97	186438	50.0	44.6	
57 Isobutyl alcohol	41	6.987	6.981	0.006	75	108925	1250.0	1037.0	
58 Benzene	78	6.993	6.993	0.000	97	579587	50.0	45.2	
59 1,2-Dichloroethane	62	7.072	7.066	0.006	98	173904	50.0	46.5	
62 n-Heptane	43	7.352	7.352	0.000	86	132688	50.0	43.9	
64 Trichloroethene	130	7.723	7.723	0.000	98	138864	50.0	43.0	
66 Methylcyclohexane	83	7.954	7.954	0.000	89	211622	50.0	43.3	
67 1,2-Dichloropropane	63	7.997	7.997	0.000	94	132566	50.0	44.4	
70 1,4-Dioxane	88	8.070	8.070	0.000	44	28532	1000.0	938.8	
68 Dibromomethane	93	8.076	8.082	-0.006	98	75679	50.0	43.2	
71 Dichlorobromomethane	83	8.277	8.277	0.000	100	146696	50.0	42.7	
73 2-Chloroethyl vinyl ether	63	8.575	8.575	0.000	93	190704	100.0	88.7	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	95	183990	50.0	44.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.873	8.873	0.000	95	266177	100.0	83.8	
76 Toluene	91	9.049	9.049	0.000	98	593407	50.0	48.0	
77 trans-1,3-Dichloropropene	75	9.293	9.293	0.000	93	151866	50.0	45.2	
78 Ethyl methacrylate	69	9.354	9.353	0.001	88	179564	50.0	44.3	
79 1,1,2-Trichloroethane	97	9.487	9.487	0.000	90	127005	50.0	49.3	
80 Tetrachloroethene	164	9.554	9.560	-0.006	96	107593	50.0	45.7	
81 1,3-Dichloropropane	76	9.646	9.645	0.001	89	222983	50.0	46.9	
82 2-Hexanone	43	9.700	9.706	-0.006	95	203094	100.0	83.3	
84 Chlorodibromomethane	129	9.858	9.858	0.000	90	94715	50.0	43.5	
85 Ethylene Dibromide	107	9.974	9.974	0.000	99	122509	50.0	46.4	
86 3-Chlorobenzotrifluoride	180	10.430	10.430	0.000	90	231441	50.0	54.4	
87 Chlorobenzene	112	10.455	10.461	-0.006	95	372884	50.0	46.4	
88 4-Chlorobenzotrifluoride	180	10.516	10.521	-0.005	95	213344	50.0	54.3	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.552	0.000	91	117509	50.0	45.9	
90 Ethylbenzene	106	10.558	10.558	0.000	98	199660	50.0	44.5	
91 m-Xylene & p-Xylene	106	10.686	10.686	0.000	0	247610	50.0	45.1	
92 o-Xylene	106	11.069	11.069	0.000	96	239310	50.0	45.8	
93 Styrene	104	11.087	11.087	0.000	94	402951	50.0	45.5	
94 Bromoform	173	11.270	11.270	0.000	96	57616	50.0	42.6	
96 2-Chlorobenzotrifluoride	180	11.343	11.337	0.006	97	221388	50.0	54.3	
97 Isopropylbenzene	105	11.434	11.434	0.000	96	597035	50.0	46.8	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.750	0.000	85	184211	50.0	48.3	
100 Bromobenzene	156	11.750	11.750	0.000	94	141738	50.0	43.7	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.787	0.000	88	46673	50.0	47.8	
101 1,2,3-Trichloropropane	110	11.805	11.805	0.000	84	63593	50.0	47.5	
103 N-Propylbenzene	120	11.854	11.854	0.000	98	168027	50.0	45.4	
104 2-Chlorotoluene	126	11.939	11.939	0.000	96	140872	50.0	44.0	
105 3-Chlorotoluene	126	12.006	12.006	0.000	96	184822	50.0	53.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.036	12.036	0.000	97	493035	50.0	46.5	
107 4-Chlorotoluene	126	12.061	12.061	0.000	96	156460	50.0	45.3	
108 tert-Butylbenzene	119	12.347	12.353	-0.006	93	391222	50.0	44.1	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	485412	50.0	45.1	
111 1,2-dichloro-4-(trifluorom	214	12.450	12.450	0.000	97	142326	50.0	52.7	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	566759	50.0	45.8	
113 1,3-Dichlorobenzene	146	12.693	12.693	0.000	97	254872	50.0	44.0	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	96	471792	50.0	45.8	
115 1,4-Dichlorobenzene	146	12.791	12.797	-0.006	95	266371	50.0	44.8	
116 2,4-Dichloro-1-(trifluorom	214	12.821	12.821	0.000	95	125802	50.0	50.1	
118 2,5-Dichlorobenzotrifluori	214	12.864	12.864	0.000	0	154930	50.0	57.1	
120 n-Butylbenzene	91	13.137	13.137	0.000	98	382566	50.0	45.6	
121 1,2-Dichlorobenzene	146	13.150	13.150	0.000	96	244324	50.0	44.3	
122 1,2-Dibromo-3-Chloropropan	75	13.940	13.940	0.000	84	28856	50.0	47.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.080	14.086	-0.006	0	562210	150.0	160.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.500	14.500	0.000	0	381714	100.0	105.4	
126 1,2,4-Trichlorobenzene	180	14.768	14.762	0.006	94	112585	50.0	44.6	
127 Hexachlorobutadiene	225	14.908	14.914	-0.006	96	42179	50.0	45.6	
128 Naphthalene	128	15.029	15.029	0.000	97	395708	50.0	46.0	
129 1,2,3-Trichlorobenzene	180	15.261	15.260	0.001	96	108963	50.0	47.2	
131 2,4,5-Trichlorotoluene	159	16.027	16.027	0.000	0	56160	50.0	51.2	
130 2,3,6-Trichlorotoluene	159	16.124	16.124	0.000	97	55549	50.0	54.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	90.5	
S 133 Xylenes, Total	106				0		100.0	90.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	89.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00258	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D04.D

Injection Date: 11-Aug-2017 03:00:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

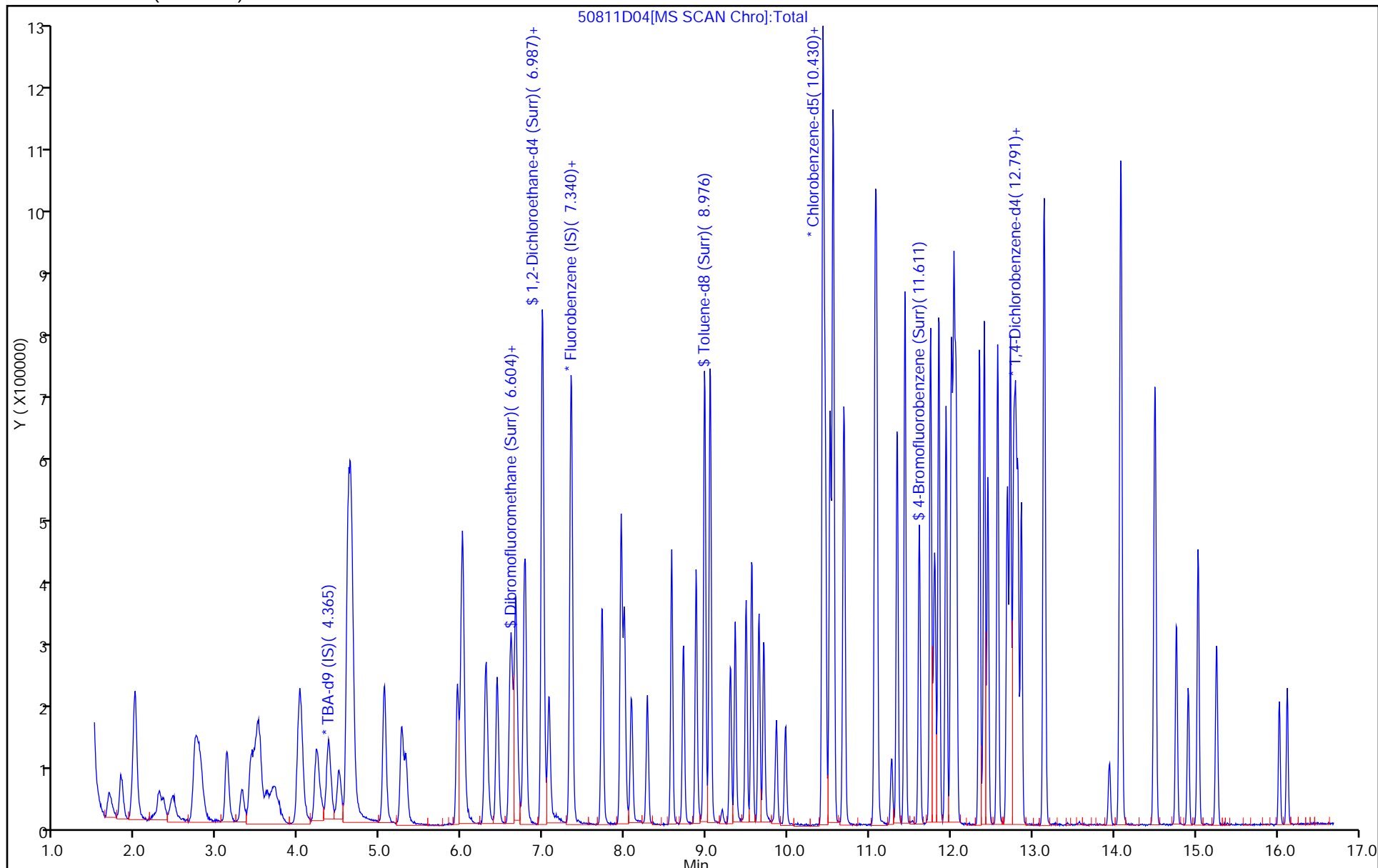
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\50811D04.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 11-Aug-2017 03:00:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017984-004  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170810-17984.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 14-Aug-2017 00:14:25 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK031

First Level Reviewer: bungardf Date: 11-Aug-2017 03:20:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.6	99.20
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.7	99.41
\$ 7 Toluene-d8 (Surr)	50.0	53.5	106.91
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.3	104.52

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-220320/4  
 Matrix: Water Lab File ID: 50816D04.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/17/2017 01:10  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220320 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.11		1.0	0.38
75-01-4	Vinyl chloride	10.1		1.0	0.17
74-83-9	Bromomethane	11.4		1.0	0.59
75-00-3	Chloroethane	10.2		1.0	0.58
75-35-4	1,1-Dichloroethene	10.4		1.0	0.32
67-64-1	Acetone	15.4		5.0	3.1
75-15-0	Carbon disulfide	10.0		1.0	0.53
75-09-2	Methylene Chloride	8.92		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	9.88		1.0	0.20
1634-04-4	Methyl tert-butyl ether	8.96		1.0	0.20
75-34-3	1,1-Dichloroethane	9.70		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.14		1.0	0.30
74-97-5	Bromochloromethane	8.97		1.0	0.36
78-93-3	2-Butanone (MEK)	14.1		5.0	2.6
67-66-3	Chloroform	9.12		1.0	0.27
71-55-6	1,1,1-Trichloroethane	10.2		1.0	0.27
56-23-5	Carbon tetrachloride	9.97		1.0	0.56
71-43-2	Benzene	9.30		1.0	0.18
107-06-2	1,2-Dichloroethane	8.92		1.0	0.24
79-01-6	Trichloroethene	9.28		1.0	0.20
78-87-5	1,2-Dichloropropane	9.07		1.0	0.35
75-27-4	Bromodichloromethane	8.72		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	8.87		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	15.6		5.0	2.2
108-88-3	Toluene	9.79		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.30		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.07		1.0	0.31
127-18-4	Tetrachloroethene	9.79		1.0	0.24
591-78-6	2-Hexanone	15.3		5.0	2.0
124-48-1	Dibromochloromethane	8.79		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	8.63		1.0	0.51
108-90-7	Chlorobenzene	9.44		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.40		1.0	0.49
100-41-4	Ethylbenzene	9.46		1.0	0.25
1330-20-7	Xylenes, Total	18.6		2.0	0.27
100-42-5	Styrene	8.96		1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-220320/4  
 Matrix: Water Lab File ID: 50816D04.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/17/2017 01:10  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220320 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.40		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	8.80		1.0	0.37
107-13-1	Acrylonitrile	85.4		20	3.3
123-91-1	1,4-Dioxane	148	J	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		65-121
2037-26-5	Toluene-d8 (Surr)	100		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D04.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 17-Aug-2017 01:10:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-004  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:41 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf

Date: 17-Aug-2017 01:34:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.361	4.341	0.020	0	245905	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.334	0.002	97	653382	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.430	0.002	86	151382	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.767	0.002	96	194856	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.615	-0.003	93	143929	50.0	45.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.986	-0.003	0	176067	50.0	45.9	
\$ 7 Toluene-d8 (Surr)	98	8.978	8.975	0.003	93	599675	50.0	49.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.609	0.003	86	215127	50.0	49.4	
11 Dichlorodifluoromethane	85	1.684	1.675	0.009	98	159926	50.0	42.1	
12 Chloromethane	50	1.830	1.821	0.009	100	173838	50.0	45.5	
13 Vinyl chloride	62	1.970	1.967	0.003	97	196612	50.0	50.7	
14 Butadiene	39	1.995	1.997	-0.002	96	174251	50.0	49.5	
15 Bromomethane	94	2.329	2.326	0.003	91	104594	50.0	57.1	
16 Chloroethane	64	2.457	2.460	-0.003	98	108207	50.0	50.8	
17 Dichlorofluoromethane	67	2.749	2.733	0.016	97	309604	50.0	57.5	
18 Trichlorofluoromethane	101	2.785	2.794	-0.009	96	261676	50.0	55.0	
20 Ethyl ether	59	3.126	3.123	0.003	88	143096	50.0	46.2	
21 Acrolein	56	3.302	3.299	0.003	99	88676	150.0	113.6	
22 1,1-Dichloroethene	96	3.418	3.415	0.003	97	166617	50.0	52.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.497	3.494	0.003	92	178797	50.0	50.9	
24 Acetone	43	3.528	3.524	0.004	100	131950	100.0	77.2	
25 Iodomethane	142	3.619	3.609	0.010	94	238525	50.0	47.5	
26 Carbon disulfide	76	3.716	3.701	0.015	98	350889	50.0	50.0	
28 3-Chloro-1-propene	76	4.008	4.005	0.003	92	96495	50.0	46.7	
30 Methyl acetate	43	4.032	4.035	-0.003	97	322251	100.0	95.2	
31 Methylene Chloride	84	4.227	4.218	0.009	88	178089	50.0	44.6	
32 2-Methyl-2-propanol	59	4.495	4.504	-0.009	94	133294	500.0	458.3	
33 Acrylonitrile	53	4.610	4.607	0.003	98	702553	500.0	427.0	
34 trans-1,2-Dichloroethene	96	4.635	4.631	0.004	99	180014	50.0	49.4	
35 Methyl tert-butyl ether	73	4.653	4.656	-0.003	96	437808	50.0	44.8	
36 Hexane	57	5.055	5.051	0.004	92	224817	50.0	48.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.267	5.264	0.003	96	307423	50.0	48.5	
38 Vinyl acetate	43	5.365	5.319	0.046	95	450016	50.0	69.8	
44 2,2-Dichloropropane	97	6.004	6.000	0.004	73	40574	50.0	50.3	
45 cis-1,2-Dichloroethene	96	6.016	6.006	0.010	79	190608	50.0	45.7	
46 2-Butanone (MEK)	43	6.022	6.018	0.004	100	171160	100.0	70.4	
49 Chlorobromomethane	128	6.296	6.292	0.004	91	83116	50.0	44.9	
51 Tetrahydrofuran	42	6.302	6.304	-0.002	84	160977	100.0	113.7	
52 Chloroform	83	6.435	6.432	0.003	93	288590	50.0	45.6	
53 1,1,1-Trichloroethane	97	6.600	6.590	0.010	98	244653	50.0	51.1	
54 Cyclohexane	56	6.661	6.663	-0.002	88	287066	50.0	48.6	
56 Carbon tetrachloride	117	6.764	6.761	0.003	97	198732	50.0	49.9	
55 1,1-Dichloropropene	75	6.776	6.779	-0.003	97	255309	50.0	49.3	
57 Isobutyl alcohol	41	6.977	6.980	-0.003	80	106560	1250.0	819.6	
58 Benzene	78	6.989	6.992	-0.003	97	738977	50.0	46.5	
59 1,2-Dichloroethane	62	7.074	7.065	0.009	98	206489	50.0	44.6	
62 n-Heptane	43	7.354	7.351	0.003	86	187368	50.0	50.1	
64 Trichloroethene	130	7.719	7.722	-0.003	99	185430	50.0	46.4	
66 Methylcyclohexane	83	7.956	7.953	0.003	86	289786	50.0	47.9	
67 1,2-Dichloropropane	63	7.999	7.989	0.010	95	167724	50.0	45.3	
68 Dibromomethane	93	8.084	8.081	0.003	96	90602	50.0	41.8	
70 1,4-Dioxane	88	8.072	8.081	-0.009	31	27924	1000.0	742.3	
71 Dichlorobromomethane	83	8.273	8.275	-0.002	99	185567	50.0	43.6	
73 2-Chloroethyl vinyl ether	63	8.571	8.573	-0.002	92	213728	100.0	80.3	
74 cis-1,3-Dichloropropene	75	8.717	8.719	-0.002	96	229244	50.0	44.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.875	8.872	0.003	95	303489	100.0	78.2	
76 Toluene	91	9.045	9.048	-0.003	99	739242	50.0	49.0	
77 trans-1,3-Dichloropropene	75	9.295	9.291	0.004	91	191029	50.0	46.5	
78 Ethyl methacrylate	69	9.356	9.352	0.004	88	211006	50.0	42.6	
79 1,1,2-Trichloroethane	97	9.489	9.486	0.003	90	142608	50.0	45.4	
80 Tetrachloroethene	164	9.556	9.553	0.003	94	140851	50.0	48.9	
81 1,3-Dichloropropane	76	9.648	9.644	0.004	89	251403	50.0	43.2	
82 2-Hexanone	43	9.702	9.705	-0.003	96	227311	100.0	76.3	
84 Chlorodibromomethane	129	9.854	9.857	-0.003	90	116840	50.0	44.0	
85 Ethylene Dibromide	107	9.970	9.973	-0.003	99	139186	50.0	43.2	
86 3-Chlorobenzotrifluoride	180	10.432	10.429	0.003	91	274799	50.0	52.8	
87 Chlorobenzene	112	10.457	10.453	0.004	95	463833	50.0	47.2	
88 4-Chlorobenzotrifluoride	180	10.517	10.520	-0.003	95	256343	50.0	53.4	
89 1,1,1,2-Tetrachloroethane	131	10.548	10.551	-0.003	92	146892	50.0	47.0	
90 Ethylbenzene	106	10.554	10.557	-0.003	98	259518	50.0	47.3	
91 m-Xylene & p-Xylene	106	10.688	10.684	0.004	0	315654	50.0	47.1	
92 o-Xylene	106	11.071	11.068	0.003	95	294310	50.0	46.1	
93 Styrene	104	11.089	11.086	0.003	94	484600	50.0	44.8	
94 Bromoform	173	11.278	11.268	0.010	96	69361	50.0	42.0	
96 2-Chlorobenzotrifluoride	180	11.339	11.341	-0.002	96	259598	50.0	52.1	
97 Isopropylbenzene	105	11.436	11.433	0.003	96	751011	50.0	48.2	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.749	0.003	82	204731	50.0	44.0	
100 Bromobenzene	156	11.752	11.749	0.003	94	170398	50.0	45.1	
102 trans-1,4-Dichloro-2-buten	53	11.783	11.792	-0.009	84	47056	50.0	41.3	
101 1,2,3-Trichloropropane	110	11.807	11.804	0.003	84	71880	50.0	46.1	
103 N-Propylbenzene	120	11.850	11.852	-0.002	98	209813	50.0	48.5	
104 2-Chlorotoluene	126	11.941	11.944	-0.003	96	170288	50.0	45.6	
105 3-Chlorotoluene	126	12.008	12.004	0.004	97	208919	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.038	12.035	0.003	93	607950	50.0	49.2	
107 4-Chlorotoluene	126	12.063	12.065	-0.002	96	184448	50.0	45.7	
108 tert-Butylbenzene	119	12.349	12.351	-0.002	93	501362	50.0	48.5	
110 1,2,4-Trimethylbenzene	105	12.409	12.406	0.003	97	603010	50.0	48.0	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.455	-0.003	96	162056	50.0	51.5	
112 sec-Butylbenzene	105	12.574	12.570	0.004	94	721819	50.0	50.0	
113 1,3-Dichlorobenzene	146	12.689	12.692	-0.003	97	304997	50.0	45.1	
114 4-Isopropyltoluene	119	12.726	12.728	-0.002	96	599598	50.0	49.9	
115 1,4-Dichlorobenzene	146	12.793	12.795	-0.002	95	312893	50.0	45.1	
116 2,4-Dichloro-1-(trifluorom	214	12.823	12.820	0.003	61	147486	50.0	50.3	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.862	0.004	0	163944	50.0	51.8	
120 n-Butylbenzene	91	13.139	13.136	0.003	98	480251	50.0	49.0	
121 1,2-Dichlorobenzene	146	13.152	13.148	0.004	95	278593	50.0	43.3	
122 1,2-Dibromo-3-Chloropropan	75	13.942	13.939	0.003	81	32745	50.0	45.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.085	-0.003	0	615953	150.0	150.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.502	14.505	-0.003	0	404662	100.0	95.8	
126 1,2,4-Trichlorobenzene	180	14.764	14.760	0.004	95	121517	50.0	41.2	
127 Hexachlorobutadiene	225	14.910	14.912	-0.002	94	49058	50.0	45.5	
128 Naphthalene	128	15.031	15.028	0.003	97	405689	50.0	40.4	
129 1,2,3-Trichlorobenzene	180	15.256	15.253	0.003	95	110931	50.0	41.2	
131 2,4,5-Trichlorotoluene	159	16.029	16.026	0.003	0	54304	50.0	42.4	
130 2,3,6-Trichlorotoluene	159	16.120	16.123	-0.003	97	55133	50.0	46.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	93.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	90.9	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00258	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D04.D

Injection Date: 17-Aug-2017 01:10:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

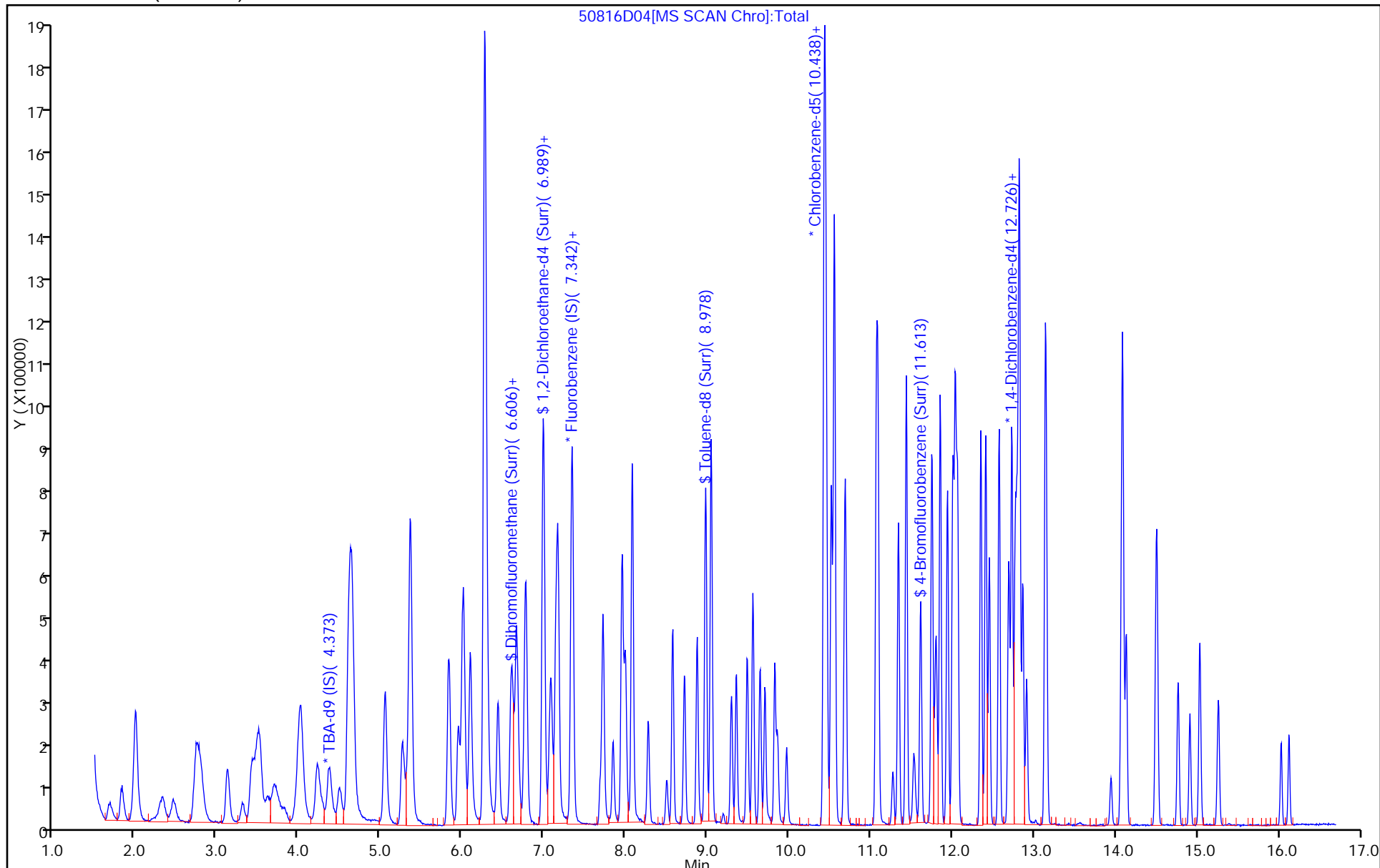
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\50816D04.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 17-Aug-2017 01:10:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0018064-004  
 Misc. Info.: LCS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170816-18064.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 17-Aug-2017 22:05:41 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK027

First Level Reviewer: bungardf Date: 17-Aug-2017 01:34:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	45.8	91.57
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	45.9	91.84
\$ 7 Toluene-d8 (Surr)	50.0	49.8	99.55
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.4	98.88

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-4 MS Lab Sample ID: 180-69061-13 MS  
 Matrix: Water Lab File ID: 50810D07.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 02:54  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.24		1.0	0.38
75-01-4	Vinyl chloride	9.88		1.0	0.17
74-83-9	Bromomethane	11.6		1.0	0.59
75-00-3	Chloroethane	10.5		1.0	0.58
75-35-4	1,1-Dichloroethene	9.36		1.0	0.32
67-64-1	Acetone	17.9		5.0	3.1
75-15-0	Carbon disulfide	7.31		1.0	0.53
75-09-2	Methylene Chloride	9.63		1.0	0.94
156-60-5	trans-1,2-Dichloroethene	9.62		1.0	0.20
1634-04-4	Methyl tert-butyl ether	9.88		1.0	0.20
75-34-3	1,1-Dichloroethane	9.73		1.0	0.34
156-59-2	cis-1,2-Dichloroethene	9.50		1.0	0.30
74-97-5	Bromochloromethane	9.68		1.0	0.36
78-93-3	2-Butanone (MEK)	17.7		5.0	2.6
67-66-3	Chloroform	9.75		1.0	0.27
71-55-6	1,1,1-Trichloroethane	9.44		1.0	0.27
56-23-5	Carbon tetrachloride	9.28		1.0	0.56
71-43-2	Benzene	9.61		1.0	0.18
107-06-2	1,2-Dichloroethane	9.82		1.0	0.24
79-01-6	Trichloroethene	9.00		1.0	0.20
78-87-5	1,2-Dichloropropane	9.40		1.0	0.35
75-27-4	Bromodichloromethane	8.93		1.0	0.57
10061-01-5	cis-1,3-Dichloropropene	9.15		1.0	0.32
108-10-1	4-Methyl-2-pentanone (MIBK)	16.7		5.0	2.2
108-88-3	Toluene	10.1		1.0	0.16
10061-02-6	trans-1,3-Dichloropropene	9.36		1.0	0.22
79-00-5	1,1,2-Trichloroethane	9.69		1.0	0.31
127-18-4	Tetrachloroethene	9.25		1.0	0.24
591-78-6	2-Hexanone	15.2		5.0	2.0
124-48-1	Dibromochloromethane	9.06		1.0	0.44
106-93-4	1,2-Dibromoethane (EDB)	9.56		1.0	0.51
108-90-7	Chlorobenzene	9.60		1.0	0.15
630-20-6	1,1,1,2-Tetrachloroethane	9.82		1.0	0.49
100-41-4	Ethylbenzene	9.50		1.0	0.25
1330-20-7	Xylenes, Total	18.9		2.0	0.27
100-42-5	Styrene	9.53		1.0	0.22

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-4 MS Lab Sample ID: 180-69061-13 MS  
 Matrix: Water Lab File ID: 50810D07.D  
 Analysis Method: 8260C Date Collected: 08/04/2017 12:25  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/10/2017 02:54  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219617 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.48		1.0	0.76
79-34-5	1,1,2,2-Tetrachloroethane	9.51		1.0	0.37
107-13-1	Acrylonitrile	95.5		20	3.3
123-91-1	1,4-Dioxane	142	J	200	16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		65-121
2037-26-5	Toluene-d8 (Surr)	101		73-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D07.D  
 Lims ID: 180-69061-C-13 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 10-Aug-2017 02:54:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-007  
 Misc. Info.: 180-69061-C-13 MS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 03:18:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.376	-0.012	0	181618	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.333	0.000	97	513995	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.423	0.006	86	120993	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	93	163543	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.615	0.000	93	115197	50.0	46.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.986	0.000	0	147262	50.0	48.8	
\$ 7 Toluene-d8 (Surr)	98	8.975	8.975	0.000	93	488401	50.0	50.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.610	11.609	0.001	87	165850	50.0	47.7	
11 Dichlorodifluoromethane	85	1.681	1.681	0.000	99	141166	50.0	47.2	
12 Chloromethane	50	1.815	1.827	-0.012	99	138738	50.0	46.2	
13 Vinyl chloride	62	1.961	1.967	-0.006	98	150638	50.0	49.4	
14 Butadiene	39	1.985	1.991	-0.006	98	137286	50.0	49.6	
15 Bromomethane	94	2.308	2.283	0.025	89	83316	50.0	57.8	
16 Chloroethane	64	2.442	2.448	-0.006	99	87736	50.0	52.4	
17 Dichlorofluoromethane	67	2.734	2.734	0.000	97	234132	50.0	55.2	
18 Trichlorofluoromethane	101	2.776	2.788	-0.012	82	193125	50.0	51.6	
20 Ethyl ether	59	3.123	3.111	0.012	88	123787	50.0	50.8	
21 Acrolein	56	3.306	3.299	0.007	99	52048	150.0	84.8	
22 1,1-Dichloroethene	96	3.415	3.409	0.006	98	117808	50.0	46.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.488	3.494	-0.006	92	127074	50.0	46.0	
24 Acetone	43	3.519	3.524	-0.006	100	120392	100.0	89.6	
25 Iodomethane	142	3.610	3.622	-0.012	97	186124	50.0	47.1	
26 Carbon disulfide	76	3.713	3.713	0.000	98	201793	50.0	36.5	
28 3-Chloro-1-propene	76	3.999	4.005	-0.006	91	74056	50.0	45.5	
30 Methyl acetate	43	4.036	4.029	0.007	97	268490	100.0	100.9	
31 Methylene Chloride	84	4.218	4.218	0.000	87	150464	50.0	48.2	
32 2-Methyl-2-propanol	59	4.492	4.504	-0.012	91	99672	500.0	464.0	
33 Acrylonitrile	53	4.607	4.607	0.000	100	618160	500.0	477.6	
34 trans-1,2-Dichloroethene	96	4.632	4.632	0.000	99	137981	50.0	48.1	
35 Methyl tert-butyl ether	73	4.656	4.650	0.006	97	379732	50.0	49.4	
36 Hexane	57	5.052	5.051	0.001	94	153355	50.0	41.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.271	5.258	0.013	97	242574	50.0	48.7	
38 Vinyl acetate	43	5.319	5.319	0.000	97	197863	50.0	39.0	
44 2,2-Dichloropropane	97	6.007	6.000	0.007	64	32189	50.0	50.7	
45 cis-1,2-Dichloroethene	96	6.001	6.000	0.001	81	155767	50.0	47.5	
46 2-Butanone (MEK)	43	6.025	6.025	0.000	91	169773	100.0	88.7	
49 Chlorobromomethane	128	6.293	6.286	0.007	95	70540	50.0	48.4	
51 Tetrahydrofuran	42	6.311	6.305	0.006	87	102408	100.0	91.9	
52 Chloroform	83	6.439	6.432	0.007	93	242802	50.0	48.8	
53 1,1,1-Trichloroethane	97	6.591	6.591	0.000	98	177956	50.0	47.2	
54 Cyclohexane	56	6.664	6.657	0.007	89	212861	50.0	45.8	
56 Carbon tetrachloride	117	6.767	6.761	0.006	96	145471	50.0	46.4	
55 1,1-Dichloropropene	75	6.779	6.779	0.000	97	191009	50.0	46.9	
58 Benzene	78	6.992	6.992	0.000	97	600389	50.0	48.0	
57 Isobutyl alcohol	41	6.986	6.992	-0.006	76	115366	1250.0	1128.0	
59 1,2-Dichloroethane	62	7.071	7.071	0.000	98	178791	50.0	49.1	
62 n-Heptane	43	7.351	7.351	0.000	84	133973	50.0	45.5	
64 Trichloroethene	130	7.722	7.722	0.000	97	141601	50.0	45.0	
66 Methylcyclohexane	83	7.953	7.953	0.000	88	206128	50.0	43.3	
67 1,2-Dichloropropane	63	7.996	7.990	0.006	95	136834	50.0	47.0	
70 1,4-Dioxane	88	8.081	8.075	0.006	38	21001	1000.0	709.7	
68 Dibromomethane	93	8.075	8.081	-0.006	97	77312	50.0	45.3	
71 Dichlorobromomethane	83	8.270	8.276	-0.006	100	149531	50.0	44.7	
73 2-Chloroethyl vinyl ether	63	8.574	8.574	0.000	91	30104	100.0	14.4	
74 cis-1,3-Dichloropropene	75	8.720	8.720	0.000	95	186049	50.0	45.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.872	8.872	0.000	96	258700	100.0	83.4	
76 Toluene	91	9.048	9.048	0.000	99	609034	50.0	50.5	
77 trans-1,3-Dichloropropene	75	9.298	9.292	0.006	93	153577	50.0	46.8	
78 Ethyl methacrylate	69	9.353	9.352	0.001	88	177714	50.0	44.9	
79 1,1,2-Trichloroethane	97	9.486	9.486	0.000	92	121742	50.0	48.4	
80 Tetrachloroethene	164	9.553	9.559	-0.006	97	106379	50.0	46.2	
81 1,3-Dichloropropane	76	9.645	9.644	0.001	90	223702	50.0	48.2	
82 2-Hexanone	43	9.705	9.705	0.000	96	181210	100.0	76.1	
84 Chlorodibromomethane	129	9.857	9.857	0.000	90	96218	50.0	45.3	
85 Ethylene Dibromide	107	9.973	9.973	0.000	97	123164	50.0	47.8	
86 3-Chlorobenzotrifluoride	180	10.429	10.429	0.000	93	217304	50.0	52.3	
87 Chlorobenzene	112	10.460	10.460	0.000	95	376957	50.0	48.0	
88 4-Chlorobenzotrifluoride	180	10.521	10.520	0.001	95	204646	50.0	53.3	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.551	0.000	91	122636	50.0	49.1	
90 Ethylbenzene	106	10.557	10.557	0.000	98	208293	50.0	47.5	
91 m-Xylene & p-Xylene	106	10.685	10.691	-0.006	0	253524	50.0	47.3	
92 o-Xylene	106	11.068	11.068	0.000	96	240138	50.0	47.0	
93 Styrene	104	11.086	11.092	-0.006	94	411786	50.0	47.7	
94 Bromoform	173	11.275	11.275	0.000	96	55961	50.0	42.4	
96 2-Chlorobenzotrifluoride	180	11.342	11.342	0.000	95	207699	50.0	52.2	
97 Isopropylbenzene	105	11.433	11.439	-0.006	96	604296	50.0	48.5	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.749	0.000	84	177025	50.0	47.6	
100 Bromobenzene	156	11.749	11.749	0.000	94	146418	50.0	46.1	
102 trans-1,4-Dichloro-2-buten	53	11.792	11.786	0.006	81	45029	50.0	47.0	
101 1,2,3-Trichloropropane	110	11.804	11.810	-0.006	85	60490	50.0	46.2	
103 N-Propylbenzene	120	11.853	11.853	0.000	99	165544	50.0	45.6	
104 2-Chlorotoluene	126	11.938	11.938	0.000	97	144150	50.0	46.0	
105 3-Chlorotoluene	126	12.005	12.005	0.000	96	167984	50.0	49.3	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.035	12.035	0.000	95	485201	50.0	46.7	
107 4-Chlorotoluene	126	12.066	12.066	0.000	96	156339	50.0	46.2	
108 tert-Butylbenzene	119	12.352	12.352	0.000	93	381432	50.0	44.0	
110 1,2,4-Trimethylbenzene	105	12.406	12.406	0.000	97	485707	50.0	46.0	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	96	128541	50.0	48.6	
112 sec-Butylbenzene	105	12.571	12.577	-0.006	94	553018	50.0	45.7	
113 1,3-Dichlorobenzene	146	12.692	12.692	0.000	97	257778	50.0	45.5	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	97	463861	50.0	46.0	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	95	267251	50.0	45.9	
116 2,4-Dichloro-1-(trifluorom	214	12.820	12.826	-0.006	93	111176	50.0	45.2	
118 2,5-Dichlorobenzotrifluori	214	12.863	12.869	-0.006	0	139243	50.0	52.4	
120 n-Butylbenzene	91	13.136	13.136	0.000	98	372527	50.0	45.3	
121 1,2-Dichlorobenzene	146	13.155	13.149	0.006	97	254876	50.0	47.1	
122 1,2-Dibromo-3-Chloropropan	75	13.939	13.939	0.000	79	27966	50.0	46.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.085	0.000	0	531340	150.0	155.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.499	14.505	-0.006	0	354780	100.0	100.1	
126 1,2,4-Trichlorobenzene	180	14.767	14.767	0.000	94	114607	50.0	46.3	
127 Hexachlorobutadiene	225	14.907	14.913	-0.006	97	42325	50.0	46.8	
128 Naphthalene	128	15.035	15.034	0.000	97	385962	50.0	45.8	
129 1,2,3-Trichlorobenzene	180	15.260	15.259	0.001	95	107593	50.0	47.6	
131 2,4,5-Trichlorotoluene	159	16.026	16.026	0.000	0	55665	50.0	51.8	
130 2,3,6-Trichlorotoluene	159	16.123	16.123	0.000	97	52529	50.0	52.6	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.6	
S 133 Xylenes, Total	106				0		100.0	94.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.5	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00015	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D07.D

Injection Date: 10-Aug-2017 02:54:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-13 MS

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

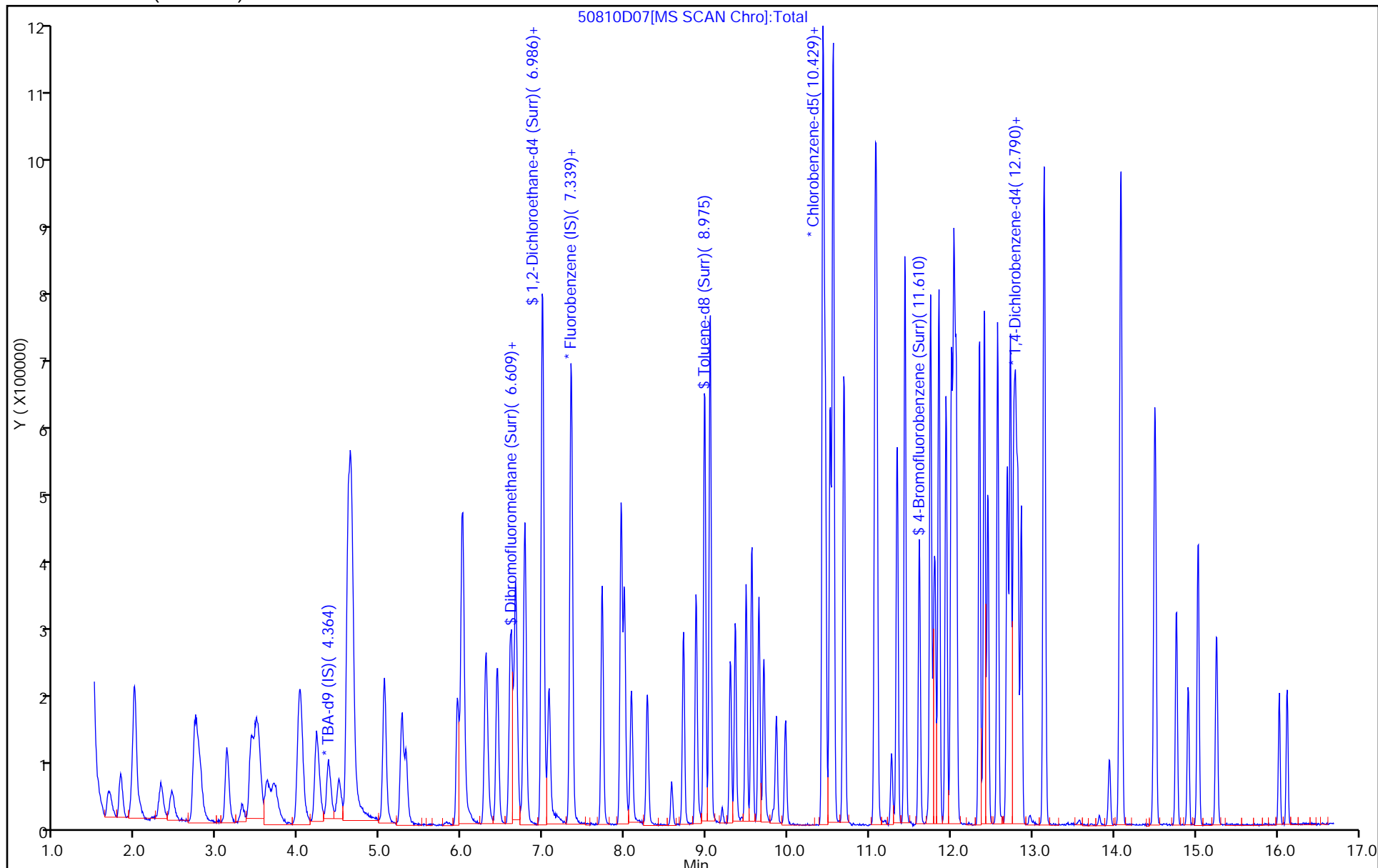
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\50810D07.D  
 Lims ID: 180-69061-C-13 MS  
 Client ID:  
 Sample Type: MS  
 Inject. Date: 10-Aug-2017 02:54:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-0017967-007  
 Misc. Info.: 180-69061-C-13 MS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17967.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 10-Aug-2017 23:47:51 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK030

First Level Reviewer: bungardf

Date: 10-Aug-2017 03:18:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	46.6	93.16
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.8	97.64
\$ 7 Toluene-d8 (Surr)	50.0	50.7	101.44
\$ 8 4-Bromofluorobenzene (Surr)	50.0	47.7	95.38

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-110-0/1-0 MS Lab Sample ID: 180-69061-25 MS  
 Matrix: Water Lab File ID: 50809D07.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 04:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	51.7		5.0	1.9
75-01-4	Vinyl chloride	54.5		5.0	0.84
74-83-9	Bromomethane	65.7		5.0	2.9
75-00-3	Chloroethane	57.3		5.0	2.9
75-35-4	1,1-Dichloroethene	51.3		5.0	1.6
67-64-1	Acetone	68.7		25	16
75-15-0	Carbon disulfide	44.2		5.0	2.6
75-09-2	Methylene Chloride	45.7		5.0	4.7
156-60-5	trans-1,2-Dichloroethene	49.2		5.0	1.0
1634-04-4	Methyl tert-butyl ether	45.7		5.0	0.98
75-34-3	1,1-Dichloroethane	48.4		5.0	1.7
156-59-2	cis-1,2-Dichloroethene	46.4		5.0	1.5
74-97-5	Bromochloromethane	45.1		5.0	1.8
78-93-3	2-Butanone (MEK)	71.3		25	13
67-66-3	Chloroform	47.6		5.0	1.3
71-55-6	1,1,1-Trichloroethane	48.6		5.0	1.4
56-23-5	Carbon tetrachloride	48.9		5.0	2.8
71-43-2	Benzene	47.4		5.0	0.91
107-06-2	1,2-Dichloroethane	48.1		5.0	1.2
79-01-6	Trichloroethene	48.3		5.0	0.99
78-87-5	1,2-Dichloropropane	45.5		5.0	1.7
75-27-4	Bromodichloromethane	43.7		5.0	2.9
10061-01-5	cis-1,3-Dichloropropene	44.4		5.0	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	62.8		25	11
108-88-3	Toluene	40.0		5.0	0.78
10061-02-6	trans-1,3-Dichloropropene	36.9		5.0	1.1
79-00-5	1,1,2-Trichloroethane	37.4		5.0	1.5
127-18-4	Tetrachloroethene	82.6		5.0	1.2
591-78-6	2-Hexanone	60.4		25	10
124-48-1	Dibromochloromethane	36.6		5.0	2.2
106-93-4	1,2-Dibromoethane (EDB)	37.1		5.0	2.6
108-90-7	Chlorobenzene	38.2		5.0	0.73
630-20-6	1,1,1,2-Tetrachloroethane	38.9		5.0	2.5
100-41-4	Ethylbenzene	38.4		5.0	1.3
1330-20-7	Xylenes, Total	77.3		10	1.4
100-42-5	Styrene	38.1		5.0	1.1

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-110-0/1-0 MS Lab Sample ID: 180-69061-25 MS  
 Matrix: Water Lab File ID: 50809D07.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 04:28  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	33.6		5.0	3.8
79-34-5	1,1,2,2-Tetrachloroethane	38.4		5.0	1.9
107-13-1	Acrylonitrile	445		100	17
123-91-1	1,4-Dioxane	666	J	1000	78

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		65-121
2037-26-5	Toluene-d8 (Surr)	85		73-120
460-00-4	4-Bromofluorobenzene (Surr)	108		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D07.D  
 Lims ID: 180-69061-C-25 MS  
 Client ID: HD-MW-110-0/1-0  
 Sample Type: MS  
 Inject. Date: 09-Aug-2017 04:28:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-007  
 Misc. Info.: 180-69061-C-25 MS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 05:02:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.373	-0.019	0	269768	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.340	7.336	0.004	99	564619	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.431	10.426	0.005	85	163488	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.767	12.768	-0.001	94	279110	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.617	6.618	-0.001	93	129405	50.0	47.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.983	0.005	0	153854	50.0	46.4	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.978	0.005	93	555579	50.0	42.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.611	11.612	-0.001	87	254856	50.0	54.2	
11 Dichlorodifluoromethane	85	1.683	1.684	-0.001	99	181559	50.0	55.3	
12 Chloromethane	50	1.829	1.830	-0.001	98	170602	50.0	51.7	
13 Vinyl chloride	62	1.981	1.970	0.011	97	182551	50.0	54.5	
14 Butadiene	39	1.999	1.988	0.011	94	160891	50.0	52.9	
15 Bromomethane	94	2.322	2.292	0.030	89	103990	50.0	65.7	
16 Chloroethane	64	2.462	2.457	0.005	99	105430	50.0	57.3	
17 Dichlorofluoromethane	67	2.754	2.743	0.011	97	283174	50.0	60.8	
18 Trichlorofluoromethane	101	2.802	2.791	0.011	94	237744	50.0	57.8	M
20 Ethyl ether	59	3.131	3.120	0.011	89	131623	50.0	49.2	
21 Acrolein	56	3.307	3.302	0.005	98	54361	150.0	80.6	
22 1,1-Dichloroethene	96	3.447	3.424	0.023	97	141920	50.0	51.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.502	3.497	0.005	93	160623	50.0	53.0	
24 Acetone	43	3.526	3.533	-0.007	97	101415	100.0	68.7	
25 Iodomethane	142	3.642	3.619	0.023	97	210172	50.0	48.4	
26 Carbon disulfide	76	3.727	3.698	0.029	98	267889	50.0	44.2	
28 3-Chloro-1-propene	76	4.013	4.002	0.011	92	85152	50.0	47.7	
30 Methyl acetate	43	4.037	4.026	0.011	96	271541	100.0	92.9	
31 Methylene Chloride	84	4.232	4.221	0.011	92	157385	50.0	45.7	
32 2-Methyl-2-propanol	59	4.493	4.507	-0.014	93	117755	500.0	369.1	
33 Acrylonitrile	53	4.609	4.604	0.005	99	633275	500.0	445.4	
34 trans-1,2-Dichloroethene	96	4.633	4.635	-0.002	64	155087	50.0	49.2	
35 Methyl tert-butyl ether	73	4.658	4.659	-0.001	96	385652	50.0	45.7	
36 Hexane	57	5.059	5.048	0.011	93	190723	50.0	47.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.272	5.267	0.005	97	264966	50.0	48.4	
38 Vinyl acetate	43	5.321	5.322	-0.001	97	207711	50.0	37.3	
44 2,2-Dichloropropane	97	6.014	6.009	0.005	64	33628	50.0	48.2	
45 cis-1,2-Dichloroethene	96	6.008	6.009	-0.001	82	167036	50.0	46.4	
46 2-Butanone (MEK)	43	6.026	6.022	0.004	89	149813	100.0	71.3	
49 Chlorobromomethane	128	6.300	6.289	0.011	94	72234	50.0	45.1	
51 Tetrahydrofuran	42	6.306	6.307	-0.001	84	96435	100.0	78.8	
52 Chloroform	83	6.440	6.435	0.005	93	260461	50.0	47.6	
53 1,1,1-Trichloroethane	97	6.598	6.593	0.005	98	201325	50.0	48.6	
54 Cyclohexane	56	6.665	6.660	0.005	89	246081	50.0	48.2	
56 Carbon tetrachloride	117	6.763	6.758	0.005	97	168353	50.0	48.9	
55 1,1-Dichloropropene	75	6.781	6.776	0.005	97	219204	50.0	49.0	
57 Isobutyl alcohol	41	6.982	6.983	-0.001	84	123774	1250.0	1101.7	
58 Benzene	78	7.000	6.995	0.005	97	650760	50.0	47.4	
59 1,2-Dichloroethane	62	7.067	7.068	-0.001	98	192317	50.0	48.1	
62 n-Heptane	43	7.353	7.354	-0.001	89	159290	50.0	49.3	
64 Trichloroethene	130	7.724	7.725	-0.001	97	167024	50.0	48.3	
66 Methylcyclohexane	83	7.961	7.956	0.005	86	245117	50.0	46.9	
67 1,2-Dichloropropane	63	7.997	7.993	0.004	93	145531	50.0	45.5	
70 1,4-Dioxane	88	8.083	8.078	0.005	38	21647	1000.0	665.9	
68 Dibromomethane	93	8.089	8.084	0.005	97	81723	50.0	43.6	
71 Dichlorobromomethane	83	8.277	8.279	-0.002	100	160856	50.0	43.7	
73 2-Chloroethyl vinyl ether	63	8.575	8.577	-0.002	93	17714	100.0	7.70	
74 cis-1,3-Dichloropropene	75	8.715	8.717	-0.002	95	198436	50.0	44.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.874	8.875	-0.001	97	263404	100.0	62.8	
76 Toluene	91	9.050	9.045	0.005	99	652757	50.0	40.0	
77 trans-1,3-Dichloropropene	75	9.293	9.294	-0.001	92	163620	50.0	36.9	
78 Ethyl methacrylate	69	9.354	9.355	-0.001	89	195007	50.0	36.5	
79 1,1,2-Trichloroethane	97	9.488	9.489	-0.001	91	127114	50.0	37.4	
80 Tetrachloroethene	164	9.561	9.556	0.005	96	256898	50.0	82.6	
81 1,3-Dichloropropane	76	9.646	9.647	-0.001	90	233714	50.0	37.2	
82 2-Hexanone	43	9.707	9.702	0.005	95	194196	100.0	60.4	
84 Chlorodibromomethane	129	9.859	9.860	-0.001	91	105189	50.0	36.6	
85 Ethylene Dibromide	107	9.969	9.970	-0.001	98	129140	50.0	37.1	
86 3-Chlorobenzotrifluoride	180	10.431	10.432	-0.001	82	239619	50.0	42.7	
87 Chlorobenzene	112	10.461	10.456	0.005	94	405514	50.0	38.2	
88 4-Chlorobenzotrifluoride	180	10.516	10.517	-0.001	96	223980	50.0	43.2	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.548	0.005	92	131317	50.0	38.9	
90 Ethylbenzene	106	10.559	10.560	-0.001	98	227752	50.0	38.4	
91 m-Xylene & p-Xylene	106	10.686	10.688	-0.002	0	286981	50.0	39.6	
92 o-Xylene	106	11.070	11.071	-0.001	96	259938	50.0	37.7	
93 Styrene	104	11.088	11.089	-0.001	95	444317	50.0	38.1	
94 Bromoform	173	11.270	11.272	-0.002	95	59948	50.0	33.6	
96 2-Chlorobenzotrifluoride	180	11.343	11.339	0.005	96	231728	50.0	43.1	
97 Isopropylbenzene	105	11.435	11.436	-0.001	96	667632	50.0	39.6	
99 1,1,2,2-Tetrachloroethane	83	11.751	11.752	-0.001	84	193118	50.0	38.4	
100 Bromobenzene	156	11.751	11.752	-0.001	92	155582	50.0	28.7	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.789	-0.002	82	48585	50.0	29.7	
101 1,2,3-Trichloropropane	110	11.806	11.807	-0.001	85	63995	50.0	28.6	
103 N-Propylbenzene	120	11.848	11.856	-0.008	99	186671	50.0	30.2	
104 2-Chlorotoluene	126	11.940	11.941	-0.001	97	157030	50.0	29.3	
105 3-Chlorotoluene	126	12.007	12.008	-0.002	97	182652	50.0	31.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.037	12.038	-0.001	96	532727	50.0	30.1	
107 4-Chlorotoluene	126	12.067	12.062	0.005	96	166470	50.0	28.8	
108 tert-Butylbenzene	119	12.347	12.348	-0.001	93	434005	50.0	29.3	
110 1,2,4-Trimethylbenzene	105	12.408	12.409	-0.001	97	536328	50.0	29.8	
111 1,2-dichloro-4-(trifluorom	214	12.451	12.458	-0.007	96	143028	50.0	31.7	
112 sec-Butylbenzene	105	12.572	12.573	-0.001	94	624994	50.0	30.2	
113 1,3-Dichlorobenzene	146	12.688	12.695	-0.007	97	276433	50.0	28.6	
114 4-Isopropyltoluene	119	12.730	12.732	-0.002	96	519192	50.0	30.2	
115 1,4-Dichlorobenzene	146	12.797	12.792	0.005	96	283454	50.0	28.5	
116 2,4-Dichloro-1-(trifluorom	214	12.822	12.823	-0.001	95	126198	50.0	30.0	
118 2,5-Dichlorobenzotrifluori	214	12.864	12.865	-0.001	0	154710	50.0	34.1	
120 n-Butylbenzene	91	13.138	13.139	-0.001	98	409813	50.0	29.2	
121 1,2-Dichlorobenzene	146	13.150	13.151	-0.001	97	256808	50.0	27.8	
122 1,2-Dibromo-3-Chloropropan	75	13.941	13.948	-0.007	81	29696	50.0	29.0	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.087	14.082	0.005	0	560939	150.0	95.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.501	14.502	-0.001	0	382784	100.0	63.3	
126 1,2,4-Trichlorobenzene	180	14.768	14.763	0.005	94	113804	50.0	27.0	
127 Hexachlorobutadiene	225	14.914	14.916	-0.002	97	44665	50.0	28.9	
128 Naphthalene	128	15.030	15.031	-0.001	97	386094	50.0	26.9	
129 1,2,3-Trichlorobenzene	180	15.255	15.262	-0.007	95	106884	50.0	27.7	
131 2,4,5-Trichlorotoluene	159	16.028	16.029	-0.001	0	55158	50.0	30.1	
130 2,3,6-Trichlorotoluene	159	16.125	16.120	0.005	96	53024	50.0	31.1	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	95.6	
S 133 Xylenes, Total	106				0		100.0	77.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.3	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00014	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D07.D

Injection Date: 09-Aug-2017 04:28:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-25 MS

Worklist Smp#: 7

Client ID: HD-MW-110-0/1-0

Purge Vol: 5.000 mL

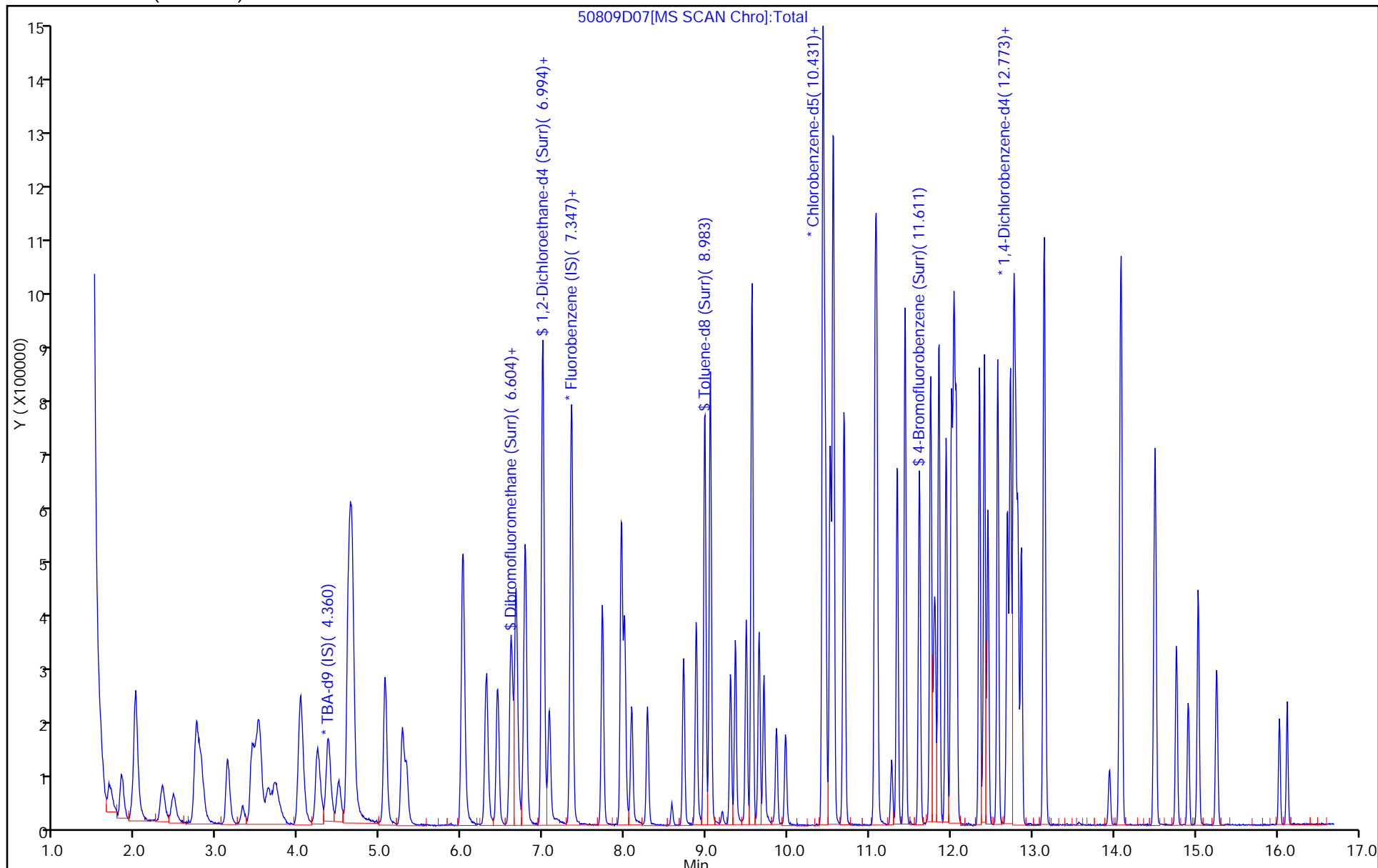
Dil. Factor: 5.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D07.D  
 Lims ID: 180-69061-C-25 MS  
 Client ID: HD-MW-110-0/1-0  
 Sample Type: MS  
 Inject. Date: 09-Aug-2017 04:28:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-007  
 Misc. Info.: 180-69061-C-25 MS  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 05:02:29

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	47.6	95.27
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.4	92.87
\$ 7 Toluene-d8 (Surr)	50.0	42.7	85.40
\$ 8 4-Bromofluorobenzene (Surr)	50.0	54.2	108.47

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-110-0/1-0 MSD Lab Sample ID: 180-69061-25 MSD  
 Matrix: Water Lab File ID: 50809D08.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 04:52  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	44.5		5.0	1.9
75-01-4	Vinyl chloride	47.7		5.0	0.84
74-83-9	Bromomethane	58.4		5.0	2.9
75-00-3	Chloroethane	50.5		5.0	2.9
75-35-4	1,1-Dichloroethene	45.3		5.0	1.6
67-64-1	Acetone	74.0		25	16
75-15-0	Carbon disulfide	39.2		5.0	2.6
75-09-2	Methylene Chloride	42.9		5.0	4.7
156-60-5	trans-1,2-Dichloroethene	44.6		5.0	1.0
1634-04-4	Methyl tert-butyl ether	44.1		5.0	0.98
75-34-3	1,1-Dichloroethane	43.7		5.0	1.7
156-59-2	cis-1,2-Dichloroethene	41.2		5.0	1.5
74-97-5	Bromochloromethane	40.6		5.0	1.8
78-93-3	2-Butanone (MEK)	73.6		25	13
67-66-3	Chloroform	43.2		5.0	1.3
71-55-6	1,1,1-Trichloroethane	44.6		5.0	1.4
56-23-5	Carbon tetrachloride	42.4		5.0	2.8
71-43-2	Benzene	42.8		5.0	0.91
107-06-2	1,2-Dichloroethane	43.6		5.0	1.2
79-01-6	Trichloroethene	43.0		5.0	0.99
78-87-5	1,2-Dichloropropane	43.8		5.0	1.7
75-27-4	Bromodichloromethane	40.8		5.0	2.9
10061-01-5	cis-1,3-Dichloropropene	40.0		5.0	1.6
108-10-1	4-Methyl-2-pentanone (MIBK)	63.3		25	11
108-88-3	Toluene	37.6		5.0	0.78
10061-02-6	trans-1,3-Dichloropropene	36.0		5.0	1.1
79-00-5	1,1,2-Trichloroethane	37.1		5.0	1.5
127-18-4	Tetrachloroethene	78.8		5.0	1.2
591-78-6	2-Hexanone	60.9		25	10
124-48-1	Dibromochloromethane	34.4		5.0	2.2
106-93-4	1,2-Dibromoethane (EDB)	35.3		5.0	2.6
108-90-7	Chlorobenzene	36.0		5.0	0.73
630-20-6	1,1,1,2-Tetrachloroethane	36.3		5.0	2.5
100-41-4	Ethylbenzene	35.4		5.0	1.3
1330-20-7	Xylenes, Total	71.6		10	1.4
100-42-5	Styrene	35.0		5.0	1.1

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-110-0/1-0 MSD Lab Sample ID: 180-69061-25 MSD  
 Matrix: Water Lab File ID: 50809D08.D  
 Analysis Method: 8260C Date Collected: 08/02/2017 13:20  
 Sample wt/vol: 5 (mL) Date Analyzed: 08/09/2017 04:52  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 5  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 219487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	32.2		5.0	3.8
79-34-5	1,1,2,2-Tetrachloroethane	36.3		5.0	1.9
107-13-1	Acrylonitrile	443		100	17
123-91-1	1,4-Dioxane	720	J	1000	78

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		65-121
2037-26-5	Toluene-d8 (Surr)	89		73-120
460-00-4	4-Bromofluorobenzene (Surr)	110		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		73-120

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D08.D  
 Lims ID: 180-69061-C-25 MSD  
 Client ID: HD-MW-110-0/1-0  
 Sample Type: MSD  
 Inject. Date: 09-Aug-2017 04:52:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-008  
 Misc. Info.: 180-69061-C-25 MSD  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf

Date: 09-Aug-2017 05:34:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.373	-0.009	0	295644	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.339	7.336	0.003	97	568488	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.426	0.003	85	159293	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.768	0.003	95	272317	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.618	-0.003	93	127184	50.0	46.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.983	0.003	0	154752	50.0	46.4	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.978	0.003	93	566703	50.0	44.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.612	-0.003	86	252883	50.0	55.2	
11 Dichlorodifluoromethane	85	1.681	1.684	-0.003	99	160139	50.0	48.4	
12 Chloromethane	50	1.821	1.830	-0.009	100	147962	50.0	44.5	
13 Vinyl chloride	62	1.967	1.970	-0.003	98	160826	50.0	47.7	
14 Butadiene	39	1.991	1.988	0.003	97	142706	50.0	46.6	
15 Bromomethane	94	2.326	2.292	0.034	89	93103	50.0	58.4	
16 Chloroethane	64	2.454	2.457	-0.003	99	93557	50.0	50.5	
17 Dichlorofluoromethane	67	2.740	2.743	-0.003	96	239346	50.0	51.1	
18 Trichlorofluoromethane	101	2.776	2.791	-0.015	97	208440	50.0	50.3	
20 Ethyl ether	59	3.129	3.120	0.009	88	125538	50.0	46.6	
21 Acrolein	56	3.305	3.302	0.003	99	55864	150.0	82.3	
22 1,1-Dichloroethene	96	3.427	3.424	0.003	97	126068	50.0	45.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.500	3.497	0.003	93	138755	50.0	45.4	
24 Acetone	43	3.530	3.533	-0.003	94	110012	100.0	74.0	
25 Iodomethane	142	3.616	3.619	-0.003	98	191603	50.0	43.8	
26 Carbon disulfide	76	3.707	3.698	0.009	99	239744	50.0	39.2	
28 3-Chloro-1-propene	76	4.011	4.002	0.009	91	78343	50.0	43.6	
30 Methyl acetate	43	4.035	4.026	0.009	98	262575	100.0	89.2	
31 Methylene Chloride	84	4.230	4.221	0.009	91	149274	50.0	42.9	
32 2-Methyl-2-propanol	59	4.492	4.507	-0.015	93	130088	500.0	372.1	
33 Acrylonitrile	53	4.613	4.604	0.009	100	633669	500.0	442.7	
34 trans-1,2-Dichloroethene	96	4.644	4.635	0.009	98	141458	50.0	44.6	
35 Methyl tert-butyl ether	73	4.656	4.659	-0.003	96	375288	50.0	44.1	
36 Hexane	57	5.057	5.048	0.009	93	170865	50.0	42.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.270	5.267	0.003	96	240808	50.0	43.7	
38 Vinyl acetate	43	5.319	5.322	-0.003	97	219783	50.0	39.2	
44 2,2-Dichloropropane	97	6.013	6.009	0.004	63	30904	50.0	44.0	
45 cis-1,2-Dichloroethene	96	6.013	6.009	0.004	82	149336	50.0	41.2	
46 2-Butanone (MEK)	43	6.025	6.022	0.003	100	155825	100.0	73.6	
49 Chlorobromomethane	128	6.292	6.289	0.003	93	65397	50.0	40.6	
51 Tetrahydrofuran	42	6.311	6.307	0.004	85	99113	100.0	80.4	
52 Chloroform	83	6.438	6.435	0.003	93	237957	50.0	43.2	
53 1,1,1-Trichloroethane	97	6.597	6.593	0.004	99	185680	50.0	44.6	
54 Cyclohexane	56	6.663	6.660	0.003	87	225532	50.0	43.9	
56 Carbon tetrachloride	117	6.761	6.758	0.003	98	146954	50.0	42.4	
55 1,1-Dichloropropene	75	6.779	6.776	0.003	97	196193	50.0	43.6	
57 Isobutyl alcohol	41	6.980	6.983	-0.003	83	129521	1250.0	1145.0	
58 Benzene	78	6.992	6.995	-0.003	97	591645	50.0	42.8	
59 1,2-Dichloroethane	62	7.071	7.068	0.003	98	175799	50.0	43.6	
62 n-Heptane	43	7.351	7.354	-0.003	84	139255	50.0	42.8	
64 Trichloroethene	130	7.722	7.725	-0.003	98	149545	50.0	43.0	
66 Methylcyclohexane	83	7.959	7.956	0.003	87	215498	50.0	41.0	
67 1,2-Dichloropropane	63	7.996	7.993	0.003	94	140898	50.0	43.8	
70 1,4-Dioxane	88	8.081	8.078	0.003	39	23550	1000.0	719.5	
68 Dibromomethane	93	8.081	8.084	-0.003	97	76505	50.0	40.6	
71 Dichlorobromomethane	83	8.276	8.279	-0.003	98	150993	50.0	40.8	
73 2-Chloroethyl vinyl ether	63	8.580	8.577	0.003	84	6125	100.0	2.64	
74 cis-1,3-Dichloropropene	75	8.720	8.717	0.003	96	180069	50.0	40.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.872	8.875	-0.003	96	258785	100.0	63.3	
76 Toluene	91	9.048	9.045	0.003	99	597755	50.0	37.6	
77 trans-1,3-Dichloropropene	75	9.298	9.294	0.004	93	155718	50.0	36.0	
78 Ethyl methacrylate	69	9.358	9.355	0.003	88	183986	50.0	35.3	
79 1,1,2-Trichloroethane	97	9.492	9.489	0.003	90	122890	50.0	37.1	
80 Tetrachloroethene	164	9.559	9.556	0.003	96	238584	50.0	78.8	
81 1,3-Dichloropropane	76	9.644	9.647	-0.003	89	216337	50.0	35.4	
82 2-Hexanone	43	9.705	9.702	0.003	95	190857	100.0	60.9	
84 Chlorodibromomethane	129	9.857	9.860	-0.003	91	96144	50.0	34.4	
85 Ethylene Dibromide	107	9.973	9.970	0.003	96	119830	50.0	35.3	
86 3-Chlorobenzotrifluoride	180	10.429	10.432	-0.003	80	238131	50.0	43.5	
87 Chlorobenzene	112	10.460	10.456	0.004	94	372190	50.0	36.0	
88 4-Chlorobenzotrifluoride	180	10.520	10.517	0.003	95	221747	50.0	43.9	
89 1,1,1,2-Tetrachloroethane	131	10.551	10.548	0.003	94	119223	50.0	36.3	
90 Ethylbenzene	106	10.557	10.560	-0.003	98	204323	50.0	35.4	
91 m-Xylene & p-Xylene	106	10.685	10.688	-0.003	0	251913	50.0	35.7	
92 o-Xylene	106	11.068	11.071	-0.003	96	241375	50.0	35.9	
93 Styrene	104	11.092	11.089	0.003	95	398365	50.0	35.0	
94 Bromoform	173	11.275	11.272	0.003	95	55978	50.0	32.2	
96 2-Chlorobenzotrifluoride	180	11.342	11.339	0.004	97	237382	50.0	45.3	
97 Isopropylbenzene	105	11.439	11.436	0.003	96	605050	50.0	36.9	
99 1,1,2,2-Tetrachloroethane	83	11.749	11.752	-0.003	91	177703	50.0	36.3	
100 Bromobenzene	156	11.749	11.752	-0.003	96	138262	50.0	26.2	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.789	-0.003	77	45832	50.0	28.8	
101 1,2,3-Trichloropropane	110	11.804	11.807	-0.003	84	60449	50.0	27.7	
103 N-Propylbenzene	120	11.853	11.856	-0.003	99	162516	50.0	26.9	
104 2-Chlorotoluene	126	11.938	11.941	-0.003	96	144171	50.0	27.6	
105 3-Chlorotoluene	126	12.005	12.008	-0.003	97	187596	50.0	33.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.035	12.038	-0.003	94	485479	50.0	28.1	
107 4-Chlorotoluene	126	12.066	12.062	0.004	98	154799	50.0	27.5	
108 tert-Butylbenzene	119	12.352	12.348	0.004	93	395724	50.0	27.4	
110 1,2,4-Trimethylbenzene	105	12.412	12.409	0.003	97	488877	50.0	27.8	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.458	-0.003	96	142243	50.0	32.3	
112 sec-Butylbenzene	105	12.571	12.573	-0.003	94	560045	50.0	27.8	
113 1,3-Dichlorobenzene	146	12.692	12.695	-0.003	97	251914	50.0	26.7	
114 4-Isopropyltoluene	119	12.729	12.732	-0.003	97	469500	50.0	28.0	
115 1,4-Dichlorobenzene	146	12.796	12.792	0.004	96	258976	50.0	26.7	
116 2,4-Dichloro-1-(trifluorom	214	12.820	12.823	-0.003	94	132339	50.0	32.3	
118 2,5-Dichlorobenzotrifluori	214	12.863	12.865	-0.003	0	143563	50.0	32.4	
120 n-Butylbenzene	91	13.136	13.139	-0.003	98	372074	50.0	27.2	
121 1,2-Dichlorobenzene	146	13.148	13.151	-0.003	96	244498	50.0	27.2	
122 1,2-Dibromo-3-Chloropropan	75	13.939	13.948	-0.009	82	28853	50.0	28.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.082	0.003	0	586358	150.0	102.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.505	14.502	0.003	0	406637	100.0	68.9	
126 1,2,4-Trichlorobenzene	180	14.767	14.763	0.004	93	111410	50.0	27.0	
127 Hexachlorobutadiene	225	14.907	14.916	-0.009	96	41657	50.0	27.6	
128 Naphthalene	128	15.028	15.031	-0.003	97	397044	50.0	28.3	
129 1,2,3-Trichlorobenzene	180	15.259	15.262	-0.003	94	100989	50.0	26.8	
131 2,4,5-Trichlorotoluene	159	16.032	16.029	0.003	0	60020	50.0	33.6	
130 2,3,6-Trichlorotoluene	159	16.123	16.120	0.003	98	58245	50.0	35.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	85.8	
S 133 Xylenes, Total	106				0		100.0	71.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	76.1	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL	
voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00014	Amount Added: 2.00	Units: uL	
voaWEEmix1stR_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00256	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D08.D

Injection Date: 09-Aug-2017 04:52:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-69061-C-25 MSD

Worklist Smp#: 8

Client ID: HD-MW-110-0/1-0

Purge Vol: 5.000 mL

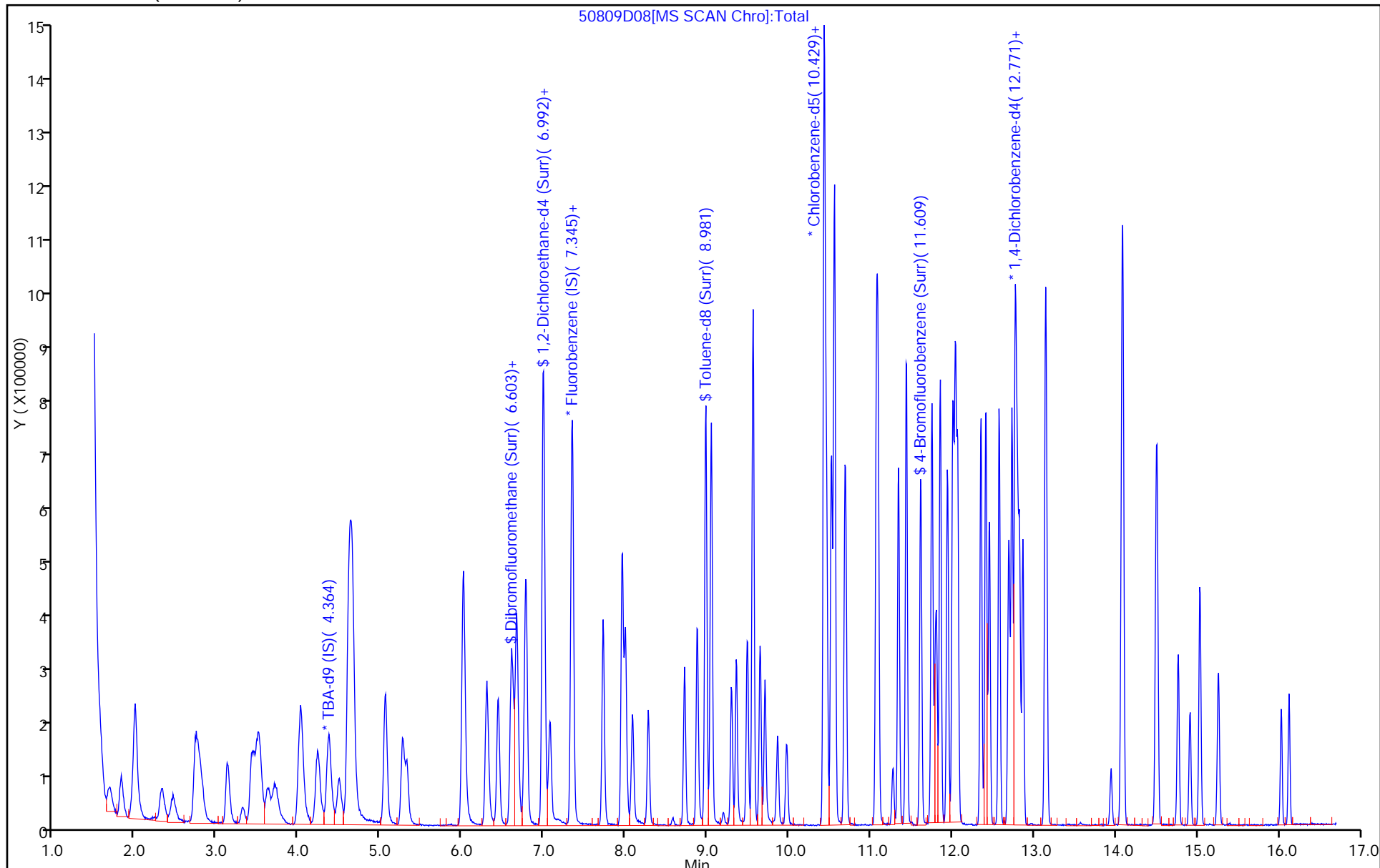
Dil. Factor: 5.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\50809D08.D  
 Lims ID: 180-69061-C-25 MSD  
 Client ID: HD-MW-110-0/1-0  
 Sample Type: MSD  
 Inject. Date: 09-Aug-2017 04:52:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 5.0000  
 Sample Info: 180-0017948-008  
 Misc. Info.: 180-69061-C-25 MSD  
 Operator ID: 034635 Instrument ID: CHHP5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170809-17948.b\MSVOA\_LL\_CHHP5.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 09-Aug-2017 22:15:10 Calib Date: 27-Jul-2017 04:24:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK002

First Level Reviewer: bungardf Date: 09-Aug-2017 05:34:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	46.5	93.00
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.4	92.77
\$ 7 Toluene-d8 (Surr)	50.0	44.7	89.40
\$ 8 4-Bromofluorobenzene (Surr)	50.0	55.2	110.46

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5Start Date: 06/08/2017 05:32Analysis Batch Number: 213537End Date: 06/08/2017 13:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-213537/1		06/08/2017 05:32	1	50608D01.D	DB-624 0.18 (mm)
IC 180-213537/2		06/08/2017 06:03	1	50608D02.D	DB-624 0.18 (mm)
IC 180-213537/3		06/08/2017 06:27	1	50608D03.D	DB-624 0.18 (mm)
ICIS 180-213537/4		06/08/2017 06:50	1	50608D04.D	DB-624 0.18 (mm)
IC 180-213537/5		06/08/2017 07:24	1	50608D05.D	DB-624 0.18 (mm)
IC 180-213537/6		06/08/2017 07:48	1	50608D06.D	DB-624 0.18 (mm)
IC 180-213537/7		06/08/2017 08:11	1	50608D07.D	DB-624 0.18 (mm)
IC 180-213537/8		06/08/2017 08:35	1	50608D08.D	DB-624 0.18 (mm)
IC 180-213537/9		06/08/2017 08:59	1	50608D09.D	DB-624 0.18 (mm)
ICV 180-213537/11		06/08/2017 09:46	1	50608D11.D	DB-624 0.18 (mm)
IC 180-213537/12		06/08/2017 10:10	1		DB-624 0.18 (mm)
IC 180-213537/13		06/08/2017 10:33	1		DB-624 0.18 (mm)
IC 180-213537/14		06/08/2017 10:57	1		DB-624 0.18 (mm)
IC 180-213537/15		06/08/2017 11:20	1		DB-624 0.18 (mm)
IC 180-213537/16		06/08/2017 11:44	1		DB-624 0.18 (mm)
IC 180-213537/17		06/08/2017 12:08	1		DB-624 0.18 (mm)
IC 180-213537/18		06/08/2017 12:31	1		DB-624 0.18 (mm)
IC 180-213537/19		06/08/2017 12:55	1		DB-624 0.18 (mm)
ICV 180-213537/21		06/08/2017 13:42	1	50608D21.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 07/27/2017 00:22

Analysis Batch Number: 218218 End Date: 07/27/2017 05:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-218218/1		07/27/2017 00:22	1	50727D01.D	DB-624 0.18 (mm)
IC 180-218218/2		07/27/2017 00:51	1	50727D02.D	DB-624 0.18 (mm)
IC 180-218218/3		07/27/2017 01:15	1	50727D03.D	DB-624 0.18 (mm)
ICIS 180-218218/4		07/27/2017 01:39	1	50727D04.D	DB-624 0.18 (mm)
ZZZZZ		07/27/2017 01:39	1		DB-624 0.18 (mm)
IC 180-218218/5		07/27/2017 02:02	1	50727D05.D	DB-624 0.18 (mm)
IC 180-218218/6		07/27/2017 02:26	1	50727D06.D	DB-624 0.18 (mm)
IC 180-218218/8		07/27/2017 03:13	1	50727D08.D	DB-624 0.18 (mm)
IC 180-218218/10		07/27/2017 04:00	1	50727D10.D	DB-624 0.18 (mm)
IC 180-218218/11		07/27/2017 04:24	1	50727D11.D	DB-624 0.18 (mm)
ICV 180-218218/12		07/27/2017 05:03	1	50727D12.D	DB-624 0.18 (mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18 (mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5Start Date: 08/09/2017 01:19Analysis Batch Number: 219487End Date: 08/09/2017 10:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-219487/1		08/09/2017 01:19	1	50809D01.D	DB-624 0.18 (mm)
CCVIS 180-219487/2		08/09/2017 01:50	1	50809D02.D	DB-624 0.18 (mm)
ZZZZZ		08/09/2017 01:50	1		DB-624 0.18 (mm)
LCS 180-219487/3		08/09/2017 02:27	1	50809D03.D	DB-624 0.18 (mm)
ZZZZZ		08/09/2017 03:02	1		DB-624 0.18 (mm)
MDLV 180-219487/1004		08/09/2017 03:02	1		DB-624 0.18 (mm)
MB 180-219487/5		08/09/2017 03:30	1	50809D05.D	DB-624 0.18 (mm)
180-69061-25		08/09/2017 04:03	5	50809D06.D	DB-624 0.18 (mm)
180-69061-25 MS		08/09/2017 04:28	5	50809D07.D	DB-624 0.18 (mm)
180-69061-25 MSD		08/09/2017 04:52	5	50809D08.D	DB-624 0.18 (mm)
180-69061-1		08/09/2017 05:40	1	50809D10.D	DB-624 0.18 (mm)
180-69061-2		08/09/2017 06:04	1	50809D11.D	DB-624 0.18 (mm)
180-69061-3		08/09/2017 06:28	5	50809D12.D	DB-624 0.18 (mm)
180-69061-4		08/09/2017 06:52	1	50809D13.D	DB-624 0.18 (mm)
180-69061-5		08/09/2017 07:15	1	50809D14.D	DB-624 0.18 (mm)
180-69061-6		08/09/2017 08:03	1	50809D16.D	DB-624 0.18 (mm)
180-69061-7		08/09/2017 08:27	1	50809D17.D	DB-624 0.18 (mm)
ZZZZZ		08/09/2017 08:51	1		DB-624 0.18 (mm)
180-69061-9		08/09/2017 09:16	1	50809D19.D	DB-624 0.18 (mm)
180-69061-10		08/09/2017 09:40	1	50809D20.D	DB-624 0.18 (mm)
180-69061-11		08/09/2017 10:28	1	50809D22.D	DB-624 0.18 (mm)
180-69061-12		08/09/2017 10:52	1	50809D23.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 08/09/2017 23:50

Analysis Batch Number: 219617 End Date: 08/10/2017 09:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-219617/1		08/09/2017 23:50	1	50810D01.D	DB-624 0.18 (mm)
CCVIS 180-219617/2		08/10/2017 00:22	1	50810D02.D	DB-624 0.18 (mm)
ZZZZZ		08/10/2017 00:22	1		DB-624 0.18 (mm)
LCS 180-219617/3		08/10/2017 00:56	1	50810D03.D	DB-624 0.18 (mm)
ZZZZZ		08/10/2017 01:30	1		DB-624 0.18 (mm)
MDLV 180-219617/1004		08/10/2017 01:30	1		DB-624 0.18 (mm)
MB 180-219617/5		08/10/2017 01:53	1	50810D05.D	DB-624 0.18 (mm)
180-69061-13		08/10/2017 02:26	1	50810D06.D	DB-624 0.18 (mm)
180-69061-13 MS		08/10/2017 02:54	1	50810D07.D	DB-624 0.18 (mm)
180-69061-14		08/10/2017 03:41	1	50810D09.D	DB-624 0.18 (mm)
180-69061-15		08/10/2017 04:05	1	50810D10.D	DB-624 0.18 (mm)
180-69061-16		08/10/2017 04:29	1	50810D11.D	DB-624 0.18 (mm)
180-69061-17		08/10/2017 04:53	1	50810D12.D	DB-624 0.18 (mm)
180-69061-18		08/10/2017 05:17	1	50810D13.D	DB-624 0.18 (mm)
180-69061-19		08/10/2017 06:04	1	50810D15.D	DB-624 0.18 (mm)
180-69061-20		08/10/2017 06:28	5	50810D16.D	DB-624 0.18 (mm)
ZZZZZ		08/10/2017 06:52	1		DB-624 0.18 (mm)
180-69061-22 DL		08/10/2017 07:16	10	50810D18.D	DB-624 0.18 (mm)
ZZZZZ		08/10/2017 08:04	1		DB-624 0.18 (mm)
180-69061-23		08/10/2017 08:28	1	50810D21.D	DB-624 0.18 (mm)
ZZZZZ		08/10/2017 09:16	1		DB-624 0.18 (mm)
180-69061-27		08/10/2017 09:40	1	50810D24.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 08/11/2017 00:48

Analysis Batch Number: 219759 End Date: 08/11/2017 09:45

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-219759/1		08/11/2017 00:48	1	50811D01.D	DB-624 0.18 (mm)
CCVIS 180-219759/2		08/11/2017 01:51	1	50811D02.D	DB-624 0.18 (mm)
ZZZZZ		08/11/2017 01:51	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 02:29	1		DB-624 0.18 (mm)
LCS 180-219759/4		08/11/2017 03:00	1	50811D04.D	DB-624 0.18 (mm)
ZZZZZ		08/11/2017 03:24	1		DB-624 0.18 (mm)
MDLV 180-219759/1005		08/11/2017 03:24	1		DB-624 0.18 (mm)
CCV 180-219759/6		08/11/2017 03:47	1		DB-624 0.18 (mm)
MB 180-219759/7		08/11/2017 04:11	1	50811D07.D	DB-624 0.18 (mm)
ZZZZZ		08/11/2017 04:35	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 04:59	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 05:22	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 06:33	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 06:57	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 07:21	1		DB-624 0.18 (mm)
ZZZZZ		08/11/2017 07:45	1		DB-624 0.18 (mm)
180-69061-26		08/11/2017 08:09	1	50811D17.D	DB-624 0.18 (mm)
180-69061-24		08/11/2017 08:33	1	50811D18.D	DB-624 0.18 (mm)
180-69061-27 DL		08/11/2017 08:57	2	50811D19.D	DB-624 0.18 (mm)
180-69061-23 DL		08/11/2017 09:21	20	50811D20.D	DB-624 0.18 (mm)
180-69061-28		08/11/2017 09:45	20	50811D21.D	DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-69061-1

SDG No.: \_\_\_\_\_

Instrument ID: CHHP5 Start Date: 08/16/2017 23:20

Analysis Batch Number: 220320 End Date: 08/17/2017 11:07

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-220320/1		08/16/2017 23:20	1	50816D01.D	DB-624 0.18 (mm)
CCVIS 180-220320/2		08/16/2017 23:53	1	50816D02.D	DB-624 0.18 (mm)
ZZZZZ		08/16/2017 23:53	1		DB-624 0.18 (mm)
CCV 180-220320/3		08/17/2017 00:32	1		DB-624 0.18 (mm)
LCS 180-220320/4		08/17/2017 01:10	1	50816D04.D	DB-624 0.18 (mm)
ZZZZZ		08/17/2017 01:47	1		DB-624 0.18 (mm)
MDLV 180-220320/1005		08/17/2017 01:47	1		DB-624 0.18 (mm)
MB 180-220320/6		08/17/2017 02:11	1	50816D06.D	DB-624 0.18 (mm)
ZZZZZ		08/17/2017 02:42	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 03:07	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 03:55	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 04:19	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 04:43	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 05:07	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 05:31	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 07:07	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 07:55	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 08:19	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 08:43	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 09:31	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 09:55	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 10:18	1		DB-624 0.18 (mm)
ZZZZZ		08/17/2017 10:42	1		DB-624 0.18 (mm)
180-69061-22		08/17/2017 11:07	1	50816D28.D	DB-624 0.18 (mm)

# Shipping and Receiving Documents



**TestAmerica Pittsburgh**  
301 Alpha Drive  
Pittsburgh, PA 15238  
phone 412-963.7058 fax 412-963.2470

# Chain of Custody Record

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Laboratories, Inc.  
COC No: TAP201708  
Job No. 10012.34

Project Manager: Christopher D. O'neil  
Tel/Fax: 717-901-8176 / (717) 657-1611

Client Contact  
Groundwater Sciences Corporation  
2601 Market Place St. Suite 310  
Harrisburg, PA 17110  
(717) 901-8180 Phone  
(717) 657-1611 FAX

Project Name: 2017 SPBA Background Event 1  
Site: Harley-Davidson, York PA  
Quote # 18000557

Site Contact: CDO/KBF/CSL  
Lab Contact: Carrie Gamber

Date Submitted: 8/7/17  
Carrier: FEDEX

Analysis Turnaround Time  
Calendar (C) or Work Days (W)  
 2 weeks  
 1 week  
 5 days  
 1 day

180-69061 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)
HD-MW-109D-0/1-0	8/2/17	1055	VOA	GW	3	X
HD-MW-175-0/1-0	8/4/17	1000				
HD-MW-164-0/1-0		0940				
HD-MW-169-0/1-0		1145				
HD-MW-170-0/1-0		0945				
HD-MW-174-0/1-0		1010				
HD-MW-167-0/1-0		1305				
HD-MW-165-0/1-0		1410				
HD-MW-166-0/1-0		1325				
HD-MW-168-0/1-0		1245				
HD-MW-141A-0/1-0		1440				
HD-MW-171-0/1-0		1200				
HD-QC1-0/1-4	8/4/17	1225	VOA	GW	3	X
HD-QC1-0/1-3	8/4/17	1235	VOA	GW	3	X
HD-QC1-0/1-2	8/4/17		VOA	GW	2	X

Number of Containers: 3  
Field Filter: N

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Unpreserved 7= Zinc Acetate & NaOH

Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 A Months For

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by: *Casey Littlefield*  
Company: GSC  
Date/Time: 8/7/17

Relinquished by: *Pauline Watson*  
Company: *AD*  
Date/Time: 8-8-17

Relinquished by: \_\_\_\_\_  
Company: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

**TestAmerica Pittsburgh**  
 301 Alpha Drive  
 Pittsburgh, PA 15238  
 phone 412.963.7058 fax 412.963.2470

**Chain of Custody Record**

**TestAmerica**  
 THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Project Manager: Christopher D. O'neil Tel/Fax: 717-901-8176 / (717) 657-1611		Site Contact: CDO/KBF/CSL Lab Contact: Carrie Gamber		Date Submitted: 8/3/17 Carrier: FEDEX		COC No: TAP201708 2 of 2 COCs	
Analysis Turnaround Time Calendar (C) or Work Days (W) LAI if different from Below Standard <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 5 days <input type="checkbox"/> 1 day		VOCs (8260C)		Job No. 10012.34		Container No. 1 SDG No.	
Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:		
8/3/17	1025	VBW	6W	3	X		
	1030						
	1228						
	1508						
	0735						
8/1/17	1059						
	1512						
	1525						
	1329						
8/2/17	1320						
	1320						
	1320						
	1210						
	1200						
	0735						
Number of Containers					3		
Field Filter					N		
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Unpreserved 7= Zinc Acetate & NaOH							

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Months

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by (Print and Sign): <i>Cory Littlefield</i>	Company: GSC	Date/Time: 8/7/17	Received by: <i>Remy Wilson</i>	Company: <i>AF</i>	Date/Time: 8-8-17
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 9:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Do Not Lift Using This Tag

Do Not Lift Usin

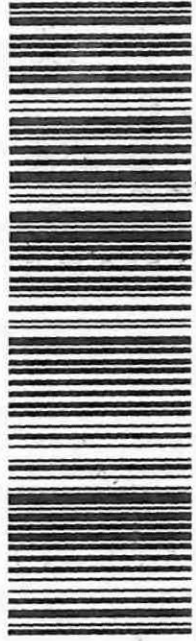
Align FedEx Pouch Here

TUE - 08 AUG 10:30A  
PRIORITY OVERNIGHT

15238  
PA-US  
PIT

FedEx  
TRK# 8996 8118 2114  
0215

EV AGCA



FTD 236075 07AUG17 MDTA 546C1/577E/0C8A

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Second business morning. Saturday Delivery NOT available.
- FedEx 2Day  
Second business afternoon. Thursday shipments delivered on Friday unless SATURDAY Delivery is selected.
- FedEx Express Saver  
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- 5 Packaging \*Declared value limit \$500.  
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- Direct Signature  
Signature required for delivery. Fee applies.
- Indirect Signature  
If no one is available at recipient's address, someone at a neighboring address will be contacted. No signature required. Fee applies.
- Does this shipment contain dangerous goods?  
One box must be checked.  
Yes  Yes attached Shipper's Declaration. Dry Ice. Dry Ice, 8 UN 1845. Cargo Aircraft Only.  
No  No. Shipper's Declaration not required. Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

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- Third Party  Credit Card  Cash/Check
- Debit/Recpt. Acct. No.



180-69061 Waybill

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FedEx Express  
From This portion can be re-used for 3 records.  
FedEx Tracking Number 899681182114

Date  
Sender's Name STAFF MEMBER - INGERT Phone 717 452-6232

Company GRU SCIENCES CORP  
Address 2601 MARKET ST STE 310  
HARRISBURG PA ZIP 17110-9340

Dept./Floor/Suite/Room  
3 To Recipient's Name  
Company TCS  
Address 201 ALPINE DRIVE  
Address 15238

Phone 412 963 3058  
State PA ZIP 15238

Dept./Floor/Suite/Room

Address 201 ALPINE DRIVE  
Address 15238

State PA ZIP 15238

Address 15238

Address 15238

Address 15238

Uncorrected temp 3.3 °C  
Thermometer ID 12

F 0 Initials B

-WI-SR-001 effective 7/26/13

## Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-69061-1

**Login Number: 69061**  
**List Number: 1**  
**Creator: Watson, Debbie**

**List Source: TestAmerica Pittsburgh**

<b>Question</b>	<b>Answer</b>	<b>Comment</b>
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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	
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	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	