

## ANALYTICAL REPORT

Job Number: 180-47984-1

Job Description: Harley Davidson

For:

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

Attention: Allan Miller



Approved for release.  
Carrie L. Gamber  
Senior Project Manager  
10/6/2015 11:55 AM

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10/06/2015

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# Definitions/Glossary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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## Qualifiers

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### GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Result exceeded calibration range.

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## Glossary

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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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## **CASE NARRATIVE**

**Client: Groundwater Sciences Corporation**

**Project: Harley Davidson**

**Report Number: 180-47984-1**

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 09/22/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 5.9 C.

### **VOLATILES**

The following samples was diluted to bring the concentration of target analytes within the calibration range: HD-MW-32D-0/1-0 (180-47984-3), HD-MW-32S-0/1-0 (180-47984-4) and HD-QC2-0/1-1 (180-47984-5). Elevated reporting limits (RLs) are provided.

# Detection Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

## Lab Sample ID: 180-47984-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.19	J	1.0	0.18	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.63	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	2.2		1.0	0.17	ug/L	1		8260C	Total/NA
Trichloroethene	31		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.39	J	1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-28-0/1-0

## Lab Sample ID: 180-47984-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	5.0		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.2		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.76	J	1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	8.7		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	2.3		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.41	J	1.0	0.15	ug/L	1		8260C	Total/NA

## Client Sample ID: HD-MW-32D-0/1-0

## Lab Sample ID: 180-47984-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	21		10	2.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethene	33		10	3.0	ug/L	10		8260C	Total/NA
trans-1,2-Dichloroethene	2.0	J	10	1.7	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	11		10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	360		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	4.0	J	10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	720	E	10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	49		10	1.5	ug/L	10		8260C	Total/NA
Vinyl chloride - DL	25	J	50	11	ug/L	50		8260C	Total/NA
1,1-Dichloroethene - DL	41	J	50	15	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene - DL	360		50	12	ug/L	50		8260C	Total/NA
Trichloroethene - DL	780		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	58		50	7.4	ug/L	50		8260C	Total/NA

## Client Sample ID: HD-MW-32S-0/1-0

## Lab Sample ID: 180-47984-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	41		10	3.0	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	55		10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	240		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	220		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	210		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	120		10	1.5	ug/L	10		8260C	Total/NA

## Client Sample ID: HD-QC2-0/1-1

## Lab Sample ID: 180-47984-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	39		10	3.0	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	55		10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	250		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	230		10	2.9	ug/L	10		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: 180-47984-1

## Client Sample ID: HD-QC2-0/1-1 (Continued)

Lab Sample ID: 180-47984-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	220		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	130		10	1.5	ug/L	10		8260C	Total/NA

## Client Sample ID: HD-QC5-0/1-2

Lab Sample ID: 180-47984-6

No Detections.

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: 180-47984-1

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

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

**Date Collected: 09/21/15 09:30**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-1**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			09/28/15 13:33	1
Vinyl chloride	ND		1.0	0.23	ug/L			09/28/15 13:33	1
Bromomethane	ND		1.0	0.31	ug/L			09/28/15 13:33	1
Chloroethane	ND		1.0	0.21	ug/L			09/28/15 13:33	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			09/28/15 13:33	1
Acetone	ND		5.0	2.5	ug/L			09/28/15 13:33	1
Carbon disulfide	ND		1.0	0.21	ug/L			09/28/15 13:33	1
Methylene Chloride	ND		1.0	0.13	ug/L			09/28/15 13:33	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			09/28/15 13:33	1
<b>Methyl tert-butyl ether</b>	<b>0.19</b>	<b>J</b>	1.0	0.18	ug/L			09/28/15 13:33	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			09/28/15 13:33	1
<b>cis-1,2-Dichloroethene</b>	<b>0.63</b>	<b>J</b>	1.0	0.24	ug/L			09/28/15 13:33	1
Bromochloromethane	ND		1.0	0.18	ug/L			09/28/15 13:33	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			09/28/15 13:33	1
<b>Chloroform</b>	<b>2.2</b>		1.0	0.17	ug/L			09/28/15 13:33	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			09/28/15 13:33	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			09/28/15 13:33	1
Benzene	ND		1.0	0.11	ug/L			09/28/15 13:33	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/28/15 13:33	1
<b>Trichloroethene</b>	<b>31</b>		1.0	0.14	ug/L			09/28/15 13:33	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			09/28/15 13:33	1
Bromodichloromethane	ND		1.0	0.13	ug/L			09/28/15 13:33	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			09/28/15 13:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			09/28/15 13:33	1
Toluene	ND		1.0	0.15	ug/L			09/28/15 13:33	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			09/28/15 13:33	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/28/15 13:33	1
<b>Tetrachloroethene</b>	<b>0.39</b>	<b>J</b>	1.0	0.15	ug/L			09/28/15 13:33	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			09/28/15 13:33	1
Dibromochloromethane	ND		1.0	0.14	ug/L			09/28/15 13:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			09/28/15 13:33	1
Chlorobenzene	ND		1.0	0.14	ug/L			09/28/15 13:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			09/28/15 13:33	1
Ethylbenzene	ND		1.0	0.23	ug/L			09/28/15 13:33	1
Xylenes, Total	ND		3.0	0.49	ug/L			09/28/15 13:33	1
Styrene	ND		1.0	0.097	ug/L			09/28/15 13:33	1
Bromoform	ND		1.0	0.19	ug/L			09/28/15 13:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/28/15 13:33	1
Acrylonitrile	ND		20	0.55	ug/L			09/28/15 13:33	1
1,4-Dioxane	ND		200	34	ug/L			09/28/15 13:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		64 - 135		09/28/15 13:33	1
Toluene-d8 (Surr)	106		71 - 118		09/28/15 13:33	1
4-Bromofluorobenzene (Surr)	97		70 - 118		09/28/15 13:33	1
Dibromofluoromethane (Surr)	95		70 - 128		09/28/15 13:33	1



# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Client Sample ID: HD-MW-28-0/1-0**

**Date Collected: 09/21/15 10:31**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-2**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			09/30/15 15:50	1
Vinyl chloride	ND		1.0	0.23	ug/L			09/30/15 15:50	1
Bromomethane	ND		1.0	0.31	ug/L			09/30/15 15:50	1
Chloroethane	ND		1.0	0.21	ug/L			09/30/15 15:50	1
<b>1,1-Dichloroethene</b>	<b>5.0</b>		1.0	0.30	ug/L			09/30/15 15:50	1
Acetone	ND		5.0	2.5	ug/L			09/30/15 15:50	1
Carbon disulfide	ND		1.0	0.21	ug/L			09/30/15 15:50	1
Methylene Chloride	ND		1.0	0.13	ug/L			09/30/15 15:50	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			09/30/15 15:50	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			09/30/15 15:50	1
<b>1,1-Dichloroethane</b>	<b>1.2</b>		1.0	0.12	ug/L			09/30/15 15:50	1
<b>cis-1,2-Dichloroethene</b>	<b>0.76</b>	<b>J</b>	1.0	0.24	ug/L			09/30/15 15:50	1
Bromochloromethane	ND		1.0	0.18	ug/L			09/30/15 15:50	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			09/30/15 15:50	1
Chloroform	ND		1.0	0.17	ug/L			09/30/15 15:50	1
<b>1,1,1-Trichloroethane</b>	<b>8.7</b>		1.0	0.29	ug/L			09/30/15 15:50	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			09/30/15 15:50	1
Benzene	ND		1.0	0.11	ug/L			09/30/15 15:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/30/15 15:50	1
<b>Trichloroethene</b>	<b>2.3</b>		1.0	0.14	ug/L			09/30/15 15:50	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			09/30/15 15:50	1
Bromodichloromethane	ND		1.0	0.13	ug/L			09/30/15 15:50	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			09/30/15 15:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			09/30/15 15:50	1
Toluene	ND		1.0	0.15	ug/L			09/30/15 15:50	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			09/30/15 15:50	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/30/15 15:50	1
<b>Tetrachloroethene</b>	<b>0.41</b>	<b>J</b>	1.0	0.15	ug/L			09/30/15 15:50	1
2-Hexanone	ND		5.0	0.16	ug/L			09/30/15 15:50	1
Dibromochloromethane	ND		1.0	0.14	ug/L			09/30/15 15:50	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			09/30/15 15:50	1
Chlorobenzene	ND		1.0	0.14	ug/L			09/30/15 15:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			09/30/15 15:50	1
Ethylbenzene	ND		1.0	0.23	ug/L			09/30/15 15:50	1
Xylenes, Total	ND		3.0	0.49	ug/L			09/30/15 15:50	1
Styrene	ND		1.0	0.097	ug/L			09/30/15 15:50	1
Bromoform	ND		1.0	0.19	ug/L			09/30/15 15:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/30/15 15:50	1
Acrylonitrile	ND		20	0.55	ug/L			09/30/15 15:50	1
1,4-Dioxane	ND		200	34	ug/L			09/30/15 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		64 - 135		09/30/15 15:50	1
Toluene-d8 (Surr)	106		71 - 118		09/30/15 15:50	1
4-Bromofluorobenzene (Surr)	93		70 - 118		09/30/15 15:50	1
Dibromofluoromethane (Surr)	102		70 - 128		09/30/15 15:50	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Client Sample ID: HD-MW-32D-0/1-0**  
**Date Collected: 09/21/15 12:57**  
**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-3**  
**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	2.8	ug/L			09/29/15 19:57	10
<b>Vinyl chloride</b>	<b>21</b>		10	2.3	ug/L			09/29/15 19:57	10
Bromomethane	ND	^c	10	3.1	ug/L			09/29/15 19:57	10
Chloroethane	ND		10	2.1	ug/L			09/29/15 19:57	10
<b>1,1-Dichloroethene</b>	<b>33</b>		10	3.0	ug/L			09/29/15 19:57	10
Acetone	ND		50	25	ug/L			09/29/15 19:57	10
Carbon disulfide	ND		10	2.1	ug/L			09/29/15 19:57	10
Methylene Chloride	ND		10	1.3	ug/L			09/29/15 19:57	10
<b>trans-1,2-Dichloroethene</b>	<b>2.0</b>	<b>J</b>	10	1.7	ug/L			09/29/15 19:57	10
Methyl tert-butyl ether	ND		10	1.8	ug/L			09/29/15 19:57	10
<b>1,1-Dichloroethane</b>	<b>11</b>		10	1.2	ug/L			09/29/15 19:57	10
<b>cis-1,2-Dichloroethene</b>	<b>360</b>		10	2.4	ug/L			09/29/15 19:57	10
Bromochloromethane	ND		10	1.8	ug/L			09/29/15 19:57	10
2-Butanone (MEK)	ND		50	5.5	ug/L			09/29/15 19:57	10
Chloroform	ND		10	1.7	ug/L			09/29/15 19:57	10
<b>1,1,1-Trichloroethane</b>	<b>4.0</b>	<b>J</b>	10	2.9	ug/L			09/29/15 19:57	10
Carbon tetrachloride	ND		10	1.4	ug/L			09/29/15 19:57	10
Benzene	ND		10	1.1	ug/L			09/29/15 19:57	10
1,2-Dichloroethane	ND		10	2.1	ug/L			09/29/15 19:57	10
<b>Trichloroethene</b>	<b>720</b>	<b>E</b>	10	1.4	ug/L			09/29/15 19:57	10
1,2-Dichloropropane	ND		10	0.95	ug/L			09/29/15 19:57	10
Bromodichloromethane	ND		10	1.3	ug/L			09/29/15 19:57	10
cis-1,3-Dichloropropene	ND		10	1.9	ug/L			09/29/15 19:57	10
4-Methyl-2-pentanone (MIBK)	ND		50	5.3	ug/L			09/29/15 19:57	10
Toluene	ND		10	1.5	ug/L			09/29/15 19:57	10
trans-1,3-Dichloropropene	ND		10	1.5	ug/L			09/29/15 19:57	10
1,1,2-Trichloroethane	ND		10	2.0	ug/L			09/29/15 19:57	10
<b>Tetrachloroethene</b>	<b>49</b>		10	1.5	ug/L			09/29/15 19:57	10
2-Hexanone	ND		50	1.6	ug/L			09/29/15 19:57	10
Dibromochloromethane	ND		10	1.4	ug/L			09/29/15 19:57	10
1,2-Dibromoethane (EDB)	ND		10	1.8	ug/L			09/29/15 19:57	10
Chlorobenzene	ND		10	1.4	ug/L			09/29/15 19:57	10
1,1,1,2-Tetrachloroethane	ND		10	2.8	ug/L			09/29/15 19:57	10
Ethylbenzene	ND		10	2.3	ug/L			09/29/15 19:57	10
Xylenes, Total	ND		30	4.9	ug/L			09/29/15 19:57	10
Styrene	ND		10	0.97	ug/L			09/29/15 19:57	10
Bromoform	ND		10	1.9	ug/L			09/29/15 19:57	10
1,1,2,2-Tetrachloroethane	ND		10	2.0	ug/L			09/29/15 19:57	10
Acrylonitrile	ND		200	5.5	ug/L			09/29/15 19:57	10
1,4-Dioxane	ND		2000	340	ug/L			09/29/15 19:57	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	106		64 - 135		09/29/15 19:57	10
<i>Toluene-d8 (Surr)</i>	107		71 - 118		09/29/15 19:57	10
<i>4-Bromofluorobenzene (Surr)</i>	90		70 - 118		09/29/15 19:57	10
<i>Dibromofluoromethane (Surr)</i>	105		70 - 128		09/29/15 19:57	10

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Client Sample ID: HD-MW-32S-0/1-0**

**Date Collected: 09/21/15 14:18**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-4**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	2.8	ug/L			09/29/15 20:47	10
Vinyl chloride	ND		10	2.3	ug/L			09/29/15 20:47	10
Bromomethane	ND	^c	10	3.1	ug/L			09/29/15 20:47	10
Chloroethane	ND		10	2.1	ug/L			09/29/15 20:47	10
<b>1,1-Dichloroethene</b>	<b>41</b>		10	3.0	ug/L			09/29/15 20:47	10
Acetone	ND		50	25	ug/L			09/29/15 20:47	10
Carbon disulfide	ND		10	2.1	ug/L			09/29/15 20:47	10
Methylene Chloride	ND		10	1.3	ug/L			09/29/15 20:47	10
trans-1,2-Dichloroethene	ND		10	1.7	ug/L			09/29/15 20:47	10
Methyl tert-butyl ether	ND		10	1.8	ug/L			09/29/15 20:47	10
<b>1,1-Dichloroethane</b>	<b>55</b>		10	1.2	ug/L			09/29/15 20:47	10
<b>cis-1,2-Dichloroethene</b>	<b>240</b>		10	2.4	ug/L			09/29/15 20:47	10
Bromochloromethane	ND		10	1.8	ug/L			09/29/15 20:47	10
2-Butanone (MEK)	ND		50	5.5	ug/L			09/29/15 20:47	10
Chloroform	ND		10	1.7	ug/L			09/29/15 20:47	10
<b>1,1,1-Trichloroethane</b>	<b>220</b>		10	2.9	ug/L			09/29/15 20:47	10
Carbon tetrachloride	ND		10	1.4	ug/L			09/29/15 20:47	10
Benzene	ND		10	1.1	ug/L			09/29/15 20:47	10
1,2-Dichloroethane	ND		10	2.1	ug/L			09/29/15 20:47	10
<b>Trichloroethene</b>	<b>210</b>		10	1.4	ug/L			09/29/15 20:47	10
1,2-Dichloropropane	ND		10	0.95	ug/L			09/29/15 20:47	10
Bromodichloromethane	ND		10	1.3	ug/L			09/29/15 20:47	10
cis-1,3-Dichloropropene	ND		10	1.9	ug/L			09/29/15 20:47	10
4-Methyl-2-pentanone (MIBK)	ND		50	5.3	ug/L			09/29/15 20:47	10
Toluene	ND		10	1.5	ug/L			09/29/15 20:47	10
trans-1,3-Dichloropropene	ND		10	1.5	ug/L			09/29/15 20:47	10
1,1,2-Trichloroethane	ND		10	2.0	ug/L			09/29/15 20:47	10
<b>Tetrachloroethene</b>	<b>120</b>		10	1.5	ug/L			09/29/15 20:47	10
2-Hexanone	ND		50	1.6	ug/L			09/29/15 20:47	10
Dibromochloromethane	ND		10	1.4	ug/L			09/29/15 20:47	10
1,2-Dibromoethane (EDB)	ND		10	1.8	ug/L			09/29/15 20:47	10
Chlorobenzene	ND		10	1.4	ug/L			09/29/15 20:47	10
1,1,1,2-Tetrachloroethane	ND		10	2.8	ug/L			09/29/15 20:47	10
Ethylbenzene	ND		10	2.3	ug/L			09/29/15 20:47	10
Xylenes, Total	ND		30	4.9	ug/L			09/29/15 20:47	10
Styrene	ND		10	0.97	ug/L			09/29/15 20:47	10
Bromoform	ND		10	1.9	ug/L			09/29/15 20:47	10
1,1,2,2-Tetrachloroethane	ND		10	2.0	ug/L			09/29/15 20:47	10
Acrylonitrile	ND		200	5.5	ug/L			09/29/15 20:47	10
1,4-Dioxane	ND		2000	340	ug/L			09/29/15 20:47	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		64 - 135		09/29/15 20:47	10
Toluene-d8 (Surr)	103		71 - 118		09/29/15 20:47	10
4-Bromofluorobenzene (Surr)	91		70 - 118		09/29/15 20:47	10
Dibromofluoromethane (Surr)	106		70 - 128		09/29/15 20:47	10

# Client Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Client Sample ID: HD-QC2-0/1-1**

**Date Collected: 09/21/15 08:00**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-5**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		10	2.8	ug/L			09/29/15 21:11	10
Vinyl chloride	ND		10	2.3	ug/L			09/29/15 21:11	10
Bromomethane	ND	^c	10	3.1	ug/L			09/29/15 21:11	10
Chloroethane	ND		10	2.1	ug/L			09/29/15 21:11	10
<b>1,1-Dichloroethene</b>	<b>39</b>		10	3.0	ug/L			09/29/15 21:11	10
Acetone	ND		50	25	ug/L			09/29/15 21:11	10
Carbon disulfide	ND		10	2.1	ug/L			09/29/15 21:11	10
Methylene Chloride	ND		10	1.3	ug/L			09/29/15 21:11	10
trans-1,2-Dichloroethene	ND		10	1.7	ug/L			09/29/15 21:11	10
Methyl tert-butyl ether	ND		10	1.8	ug/L			09/29/15 21:11	10
<b>1,1-Dichloroethane</b>	<b>55</b>		10	1.2	ug/L			09/29/15 21:11	10
<b>cis-1,2-Dichloroethene</b>	<b>250</b>		10	2.4	ug/L			09/29/15 21:11	10
Bromochloromethane	ND		10	1.8	ug/L			09/29/15 21:11	10
2-Butanone (MEK)	ND		50	5.5	ug/L			09/29/15 21:11	10
Chloroform	ND		10	1.7	ug/L			09/29/15 21:11	10
<b>1,1,1-Trichloroethane</b>	<b>230</b>		10	2.9	ug/L			09/29/15 21:11	10
Carbon tetrachloride	ND		10	1.4	ug/L			09/29/15 21:11	10
Benzene	ND		10	1.1	ug/L			09/29/15 21:11	10
1,2-Dichloroethane	ND		10	2.1	ug/L			09/29/15 21:11	10
<b>Trichloroethene</b>	<b>220</b>		10	1.4	ug/L			09/29/15 21:11	10
1,2-Dichloropropane	ND		10	0.95	ug/L			09/29/15 21:11	10
Bromodichloromethane	ND		10	1.3	ug/L			09/29/15 21:11	10
cis-1,3-Dichloropropene	ND		10	1.9	ug/L			09/29/15 21:11	10
4-Methyl-2-pentanone (MIBK)	ND		50	5.3	ug/L			09/29/15 21:11	10
Toluene	ND		10	1.5	ug/L			09/29/15 21:11	10
trans-1,3-Dichloropropene	ND		10	1.5	ug/L			09/29/15 21:11	10
1,1,2-Trichloroethane	ND		10	2.0	ug/L			09/29/15 21:11	10
<b>Tetrachloroethene</b>	<b>130</b>		10	1.5	ug/L			09/29/15 21:11	10
2-Hexanone	ND		50	1.6	ug/L			09/29/15 21:11	10
Dibromochloromethane	ND		10	1.4	ug/L			09/29/15 21:11	10
1,2-Dibromoethane (EDB)	ND		10	1.8	ug/L			09/29/15 21:11	10
Chlorobenzene	ND		10	1.4	ug/L			09/29/15 21:11	10
1,1,1,2-Tetrachloroethane	ND		10	2.8	ug/L			09/29/15 21:11	10
Ethylbenzene	ND		10	2.3	ug/L			09/29/15 21:11	10
Xylenes, Total	ND		30	4.9	ug/L			09/29/15 21:11	10
Styrene	ND		10	0.97	ug/L			09/29/15 21:11	10
Bromoform	ND		10	1.9	ug/L			09/29/15 21:11	10
1,1,1,2-Tetrachloroethane	ND		10	2.0	ug/L			09/29/15 21:11	10
Acrylonitrile	ND		200	5.5	ug/L			09/29/15 21:11	10
1,4-Dioxane	ND		2000	340	ug/L			09/29/15 21:11	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		64 - 135		09/29/15 21:11	10
Toluene-d8 (Surr)	104		71 - 118		09/29/15 21:11	10
4-Bromofluorobenzene (Surr)	91		70 - 118		09/29/15 21:11	10
Dibromofluoromethane (Surr)	106		70 - 128		09/29/15 21:11	10

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Client Sample ID: HD-QC5-0/1-2**

**Date Collected: 09/21/15 12:00**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-6**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			09/28/15 13:00	1
Vinyl chloride	ND		1.0	0.23	ug/L			09/28/15 13:00	1
Bromomethane	ND		1.0	0.31	ug/L			09/28/15 13:00	1
Chloroethane	ND		1.0	0.21	ug/L			09/28/15 13:00	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			09/28/15 13:00	1
Acetone	ND		5.0	2.5	ug/L			09/28/15 13:00	1
Carbon disulfide	ND		1.0	0.21	ug/L			09/28/15 13:00	1
Methylene Chloride	ND		1.0	0.13	ug/L			09/28/15 13:00	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			09/28/15 13:00	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			09/28/15 13:00	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			09/28/15 13:00	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			09/28/15 13:00	1
Bromochloromethane	ND		1.0	0.18	ug/L			09/28/15 13:00	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			09/28/15 13:00	1
Chloroform	ND		1.0	0.17	ug/L			09/28/15 13:00	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			09/28/15 13:00	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			09/28/15 13:00	1
Benzene	ND		1.0	0.11	ug/L			09/28/15 13:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/28/15 13:00	1
Trichloroethene	ND		1.0	0.14	ug/L			09/28/15 13:00	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			09/28/15 13:00	1
Bromodichloromethane	ND		1.0	0.13	ug/L			09/28/15 13:00	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			09/28/15 13:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			09/28/15 13:00	1
Toluene	ND		1.0	0.15	ug/L			09/28/15 13:00	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			09/28/15 13:00	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/28/15 13:00	1
Tetrachloroethene	ND		1.0	0.15	ug/L			09/28/15 13:00	1
2-Hexanone	ND	^c	5.0	0.16	ug/L			09/28/15 13:00	1
Dibromochloromethane	ND		1.0	0.14	ug/L			09/28/15 13:00	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			09/28/15 13:00	1
Chlorobenzene	ND		1.0	0.14	ug/L			09/28/15 13:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			09/28/15 13:00	1
Ethylbenzene	ND		1.0	0.23	ug/L			09/28/15 13:00	1
Xylenes, Total	ND		3.0	0.49	ug/L			09/28/15 13:00	1
Styrene	ND		1.0	0.097	ug/L			09/28/15 13:00	1
Bromoform	ND		1.0	0.19	ug/L			09/28/15 13:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/28/15 13:00	1
Acrylonitrile	ND		20	0.55	ug/L			09/28/15 13:00	1
1,4-Dioxane	ND		200	34	ug/L			09/28/15 13:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 135		09/28/15 13:00	1
Toluene-d8 (Surr)	106		71 - 118		09/28/15 13:00	1
4-Bromofluorobenzene (Surr)	97		70 - 118		09/28/15 13:00	1
Dibromofluoromethane (Surr)	94		70 - 128		09/28/15 13:00	1

# Client Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Client Sample ID: HD-MW-32D-0/1-0**

**Date Collected: 09/21/15 12:57**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-3**

**Matrix: Water**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		50	14	ug/L			09/30/15 16:14	50
<b>Vinyl chloride</b>	<b>25</b>	<b>J</b>	50	11	ug/L			09/30/15 16:14	50
Bromomethane	ND		50	16	ug/L			09/30/15 16:14	50
Chloroethane	ND		50	11	ug/L			09/30/15 16:14	50
<b>1,1-Dichloroethene</b>	<b>41</b>	<b>J</b>	50	15	ug/L			09/30/15 16:14	50
Acetone	ND		250	130	ug/L			09/30/15 16:14	50
Carbon disulfide	ND		50	11	ug/L			09/30/15 16:14	50
Methylene Chloride	ND		50	6.3	ug/L			09/30/15 16:14	50
trans-1,2-Dichloroethene	ND		50	8.5	ug/L			09/30/15 16:14	50
Methyl tert-butyl ether	ND		50	9.2	ug/L			09/30/15 16:14	50
1,1-Dichloroethane	ND		50	5.8	ug/L			09/30/15 16:14	50
<b>cis-1,2-Dichloroethene</b>	<b>360</b>		50	12	ug/L			09/30/15 16:14	50
Bromochloromethane	ND		50	9.0	ug/L			09/30/15 16:14	50
2-Butanone (MEK)	ND		250	27	ug/L			09/30/15 16:14	50
Chloroform	ND		50	8.5	ug/L			09/30/15 16:14	50
1,1,1-Trichloroethane	ND		50	14	ug/L			09/30/15 16:14	50
Carbon tetrachloride	ND		50	6.8	ug/L			09/30/15 16:14	50
Benzene	ND		50	5.3	ug/L			09/30/15 16:14	50
1,2-Dichloroethane	ND		50	11	ug/L			09/30/15 16:14	50
<b>Trichloroethene</b>	<b>780</b>		50	7.2	ug/L			09/30/15 16:14	50
1,2-Dichloropropane	ND		50	4.7	ug/L			09/30/15 16:14	50
Bromodichloromethane	ND		50	6.5	ug/L			09/30/15 16:14	50
cis-1,3-Dichloropropene	ND		50	9.3	ug/L			09/30/15 16:14	50
4-Methyl-2-pentanone (MIBK)	ND		250	26	ug/L			09/30/15 16:14	50
Toluene	ND		50	7.5	ug/L			09/30/15 16:14	50
trans-1,3-Dichloropropene	ND		50	7.4	ug/L			09/30/15 16:14	50
1,1,2-Trichloroethane	ND		50	10	ug/L			09/30/15 16:14	50
<b>Tetrachloroethene</b>	<b>58</b>		50	7.4	ug/L			09/30/15 16:14	50
2-Hexanone	ND		250	8.0	ug/L			09/30/15 16:14	50
Dibromochloromethane	ND		50	6.8	ug/L			09/30/15 16:14	50
1,2-Dibromoethane (EDB)	ND		50	9.0	ug/L			09/30/15 16:14	50
Chlorobenzene	ND		50	6.8	ug/L			09/30/15 16:14	50
1,1,1,2-Tetrachloroethane	ND		50	14	ug/L			09/30/15 16:14	50
Ethylbenzene	ND		50	11	ug/L			09/30/15 16:14	50
Xylenes, Total	ND		150	24	ug/L			09/30/15 16:14	50
Styrene	ND		50	4.8	ug/L			09/30/15 16:14	50
Bromoform	ND		50	9.6	ug/L			09/30/15 16:14	50
1,1,2,2-Tetrachloroethane	ND		50	10	ug/L			09/30/15 16:14	50
Acrylonitrile	ND		1000	27	ug/L			09/30/15 16:14	50
1,4-Dioxane	ND		10000	1700	ug/L			09/30/15 16:14	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>1,2-Dichloroethane-d4 (Surr)</i>	101		64 - 135		09/30/15 16:14	50
<i>Toluene-d8 (Surr)</i>	105		71 - 118		09/30/15 16:14	50
<i>4-Bromofluorobenzene (Surr)</i>	90		70 - 118		09/30/15 16:14	50
<i>Dibromofluoromethane (Surr)</i>	101		70 - 128		09/30/15 16:14	50

## Default Detection Limits

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.28	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.29	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.20	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.20	ug/L	8260C
1,1-Dichloroethane	1.0	0.12	ug/L	8260C
1,1-Dichloroethene	1.0	0.30	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.18	ug/L	8260C
1,2-Dichloroethane	1.0	0.21	ug/L	8260C
1,2-Dichloropropane	1.0	0.095	ug/L	8260C
1,4-Dioxane	200	34	ug/L	8260C
2-Butanone (MEK)	5.0	0.55	ug/L	8260C
2-Hexanone	5.0	0.16	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	0.53	ug/L	8260C
Acetone	5.0	2.5	ug/L	8260C
Acrylonitrile	20	0.55	ug/L	8260C
Benzene	1.0	0.11	ug/L	8260C
Bromochloromethane	1.0	0.18	ug/L	8260C
Bromodichloromethane	1.0	0.13	ug/L	8260C
Bromoform	1.0	0.19	ug/L	8260C
Bromomethane	1.0	0.31	ug/L	8260C
Carbon disulfide	1.0	0.21	ug/L	8260C
Carbon tetrachloride	1.0	0.14	ug/L	8260C
Chlorobenzene	1.0	0.14	ug/L	8260C
Chloroethane	1.0	0.21	ug/L	8260C
Chloroform	1.0	0.17	ug/L	8260C
Chloromethane	1.0	0.28	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.24	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.19	ug/L	8260C
Dibromochloromethane	1.0	0.14	ug/L	8260C
Ethylbenzene	1.0	0.23	ug/L	8260C
Methyl tert-butyl ether	1.0	0.18	ug/L	8260C
Methylene Chloride	1.0	0.13	ug/L	8260C
Styrene	1.0	0.097	ug/L	8260C
Tetrachloroethene	1.0	0.15	ug/L	8260C
Toluene	1.0	0.15	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.17	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.15	ug/L	8260C
Trichloroethene	1.0	0.14	ug/L	8260C
Vinyl chloride	1.0	0.23	ug/L	8260C
Xylenes, Total	3.0	0.49	ug/L	8260C

# Surrogate Summary

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

**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 (64-135)	TOL (71-118)	BFB (70-118)	DBFM (70-128)
180-47984-1	HD-MW-3-0/1-0	98	106	97	95
180-47984-1 MS	HD-MW-3-0/1-0	99	103	92	97
180-47984-1 MSD	HD-MW-3-0/1-0	104	104	99	104
180-47984-2	HD-MW-28-0/1-0	100	106	93	102
180-47984-3	HD-MW-32D-0/1-0	106	107	90	105
180-47984-3 - DL	HD-MW-32D-0/1-0	101	105	90	101
180-47984-4	HD-MW-32S-0/1-0	104	103	91	106
180-47984-5	HD-QC2-0/1-1	105	104	91	106
180-47984-6	HD-QC5-0/1-2	99	106	97	94
LCS 180-155089/8	Lab Control Sample	98	101	96	96
LCS 180-155230/8	Lab Control Sample	106	110	101	99
LCS 180-155405/8	Lab Control Sample	96	98	90	91
MB 180-155089/4	Method Blank	99	107	95	90
MB 180-155230/5	Method Blank	100	107	92	100
MB 180-155405/5	Method Blank	102	108	93	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: 180-47984-1

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

**Lab Sample ID: MB 180-155089/4**  
**Matrix: Water**  
**Analysis Batch: 155089**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			09/28/15 12:18	1
Vinyl chloride	ND		1.0	0.23	ug/L			09/28/15 12:18	1
Bromomethane	ND		1.0	0.31	ug/L			09/28/15 12:18	1
Chloroethane	ND		1.0	0.21	ug/L			09/28/15 12:18	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			09/28/15 12:18	1
Acetone	ND		5.0	2.5	ug/L			09/28/15 12:18	1
Carbon disulfide	ND		1.0	0.21	ug/L			09/28/15 12:18	1
Methylene Chloride	ND		1.0	0.13	ug/L			09/28/15 12:18	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			09/28/15 12:18	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			09/28/15 12:18	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			09/28/15 12:18	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			09/28/15 12:18	1
Bromochloromethane	ND		1.0	0.18	ug/L			09/28/15 12:18	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			09/28/15 12:18	1
Chloroform	ND		1.0	0.17	ug/L			09/28/15 12:18	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			09/28/15 12:18	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			09/28/15 12:18	1
Benzene	ND		1.0	0.11	ug/L			09/28/15 12:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/28/15 12:18	1
Trichloroethene	ND		1.0	0.14	ug/L			09/28/15 12:18	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			09/28/15 12:18	1
Bromodichloromethane	ND		1.0	0.13	ug/L			09/28/15 12:18	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			09/28/15 12:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			09/28/15 12:18	1
Toluene	ND		1.0	0.15	ug/L			09/28/15 12:18	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			09/28/15 12:18	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/28/15 12:18	1
Tetrachloroethene	ND		1.0	0.15	ug/L			09/28/15 12:18	1
2-Hexanone	ND		5.0	0.16	ug/L			09/28/15 12:18	1
Dibromochloromethane	ND		1.0	0.14	ug/L			09/28/15 12:18	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			09/28/15 12:18	1
Chlorobenzene	ND		1.0	0.14	ug/L			09/28/15 12:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			09/28/15 12:18	1
Ethylbenzene	ND		1.0	0.23	ug/L			09/28/15 12:18	1
Xylenes, Total	ND		3.0	0.49	ug/L			09/28/15 12:18	1
Styrene	ND		1.0	0.097	ug/L			09/28/15 12:18	1
Bromoform	ND		1.0	0.19	ug/L			09/28/15 12:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/28/15 12:18	1
Acrylonitrile	ND		20	0.55	ug/L			09/28/15 12:18	1
1,4-Dioxane	ND		200	34	ug/L			09/28/15 12:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		64 - 135		09/28/15 12:18	1
Toluene-d8 (Surr)	107		71 - 118		09/28/15 12:18	1
4-Bromofluorobenzene (Surr)	95		70 - 118		09/28/15 12:18	1
Dibromofluoromethane (Surr)	90		70 - 128		09/28/15 12:18	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: LCS 180-155089/8**

**Matrix: Water**

**Analysis Batch: 155089**

**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	11.2		ug/L		112	50 - 139
Vinyl chloride	10.0	10.4		ug/L		104	53 - 138
Bromomethane	10.0	8.81		ug/L		88	33 - 150
Chloroethane	10.0	9.45		ug/L		94	36 - 142
1,1-Dichloroethene	10.0	7.60		ug/L		76	65 - 136
Acetone	20.0	16.9		ug/L		85	22 - 150
Carbon disulfide	10.0	8.01		ug/L		80	54 - 132
Methylene Chloride	10.0	8.09		ug/L		81	63 - 129
trans-1,2-Dichloroethene	10.0	8.09		ug/L		81	73 - 126
Methyl tert-butyl ether	10.0	8.15		ug/L		81	64 - 123
1,1-Dichloroethane	10.0	8.71		ug/L		87	73 - 126
cis-1,2-Dichloroethene	10.0	8.55		ug/L		85	70 - 120
Bromochloromethane	10.0	9.18		ug/L		92	70 - 127
2-Butanone (MEK)	20.0	21.9		ug/L		109	39 - 138
Chloroform	10.0	8.72		ug/L		87	72 - 127
1,1,1-Trichloroethane	10.0	8.27		ug/L		83	63 - 133
Carbon tetrachloride	10.0	8.45		ug/L		85	55 - 150
Benzene	10.0	8.93		ug/L		89	80 - 120
1,2-Dichloroethane	10.0	9.25		ug/L		93	68 - 132
Trichloroethene	10.0	10.1		ug/L		101	73 - 120
1,2-Dichloropropane	10.0	10.2		ug/L		102	76 - 124
Bromodichloromethane	10.0	8.87		ug/L		89	66 - 130
cis-1,3-Dichloropropene	10.0	9.69		ug/L		97	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	21.5		ug/L		108	45 - 145
Toluene	10.0	9.38		ug/L		94	80 - 123
trans-1,3-Dichloropropene	10.0	9.31		ug/L		93	65 - 125
1,1,2-Trichloroethane	10.0	9.86		ug/L		99	77 - 127
Tetrachloroethene	10.0	10.3		ug/L		103	70 - 135
2-Hexanone	20.0	23.5		ug/L		117	25 - 132
Dibromochloromethane	10.0	10.2		ug/L		102	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	63 - 140
Ethylbenzene	10.0	10.1		ug/L		101	72 - 126
Xylenes, Total	20.0	20.4		ug/L		102	76 - 128
Styrene	10.0	10.6		ug/L		106	71 - 127
Bromoform	10.0	11.1		ug/L		111	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.95		ug/L		99	62 - 125
Acrylonitrile	100	104		ug/L		104	30 - 140
1,4-Dioxane	200	187	J	ug/L		94	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		64 - 135
Toluene-d8 (Surr)	101		71 - 118
4-Bromofluorobenzene (Surr)	96		70 - 118
Dibromofluoromethane (Surr)	96		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: 180-47984-1 MS**

**Matrix: Water**

**Analysis Batch: 155089**

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

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Chloromethane	ND		10.0	12.4		ug/L		124	50 - 139
Vinyl chloride	ND		10.0	10.8		ug/L		108	53 - 138
Bromomethane	ND		10.0	8.90		ug/L		89	33 - 150
Chloroethane	ND		10.0	9.88		ug/L		99	36 - 142
1,1-Dichloroethene	ND		10.0	8.53		ug/L		85	65 - 136
Acetone	ND		20.0	20.9		ug/L		105	22 - 150
Carbon disulfide	ND		10.0	8.21		ug/L		82	54 - 132
Methylene Chloride	ND		10.0	8.45		ug/L		84	63 - 129
trans-1,2-Dichloroethene	ND		10.0	8.66		ug/L		87	73 - 126
Methyl tert-butyl ether	0.19	J	10.0	9.00		ug/L		88	64 - 123
1,1-Dichloroethane	ND		10.0	9.20		ug/L		92	73 - 126
cis-1,2-Dichloroethene	0.63	J	10.0	9.84		ug/L		92	70 - 120
Bromochloromethane	ND		10.0	9.38		ug/L		94	70 - 127
2-Butanone (MEK)	ND		20.0	24.6		ug/L		123	39 - 138
Chloroform	2.2		10.0	11.4		ug/L		92	72 - 127
1,1,1-Trichloroethane	ND		10.0	8.71		ug/L		87	63 - 133
Carbon tetrachloride	ND		10.0	9.22		ug/L		92	55 - 150
Benzene	ND		10.0	9.31		ug/L		93	80 - 120
1,2-Dichloroethane	ND		10.0	9.60		ug/L		96	68 - 132
Trichloroethene	31		10.0	39.7		ug/L		91	73 - 120
1,2-Dichloropropane	ND		10.0	10.8		ug/L		108	76 - 124
Bromodichloromethane	ND		10.0	9.52		ug/L		95	66 - 130
cis-1,3-Dichloropropene	ND		10.0	10.4		ug/L		104	66 - 120
4-Methyl-2-pentanone (MIBK)	ND		20.0	23.9		ug/L		120	45 - 145
Toluene	ND		10.0	9.90		ug/L		99	80 - 123
trans-1,3-Dichloropropene	ND		10.0	10.0		ug/L		100	65 - 125
1,1,2-Trichloroethane	ND		10.0	10.1		ug/L		101	77 - 127
Tetrachloroethene	0.39	J	10.0	11.0		ug/L		106	70 - 135
2-Hexanone	ND	^c	20.0	25.6		ug/L		128	25 - 132
Dibromochloromethane	ND		10.0	10.7		ug/L		107	60 - 140
1,2-Dibromoethane (EDB)	ND		10.0	11.1		ug/L		111	74 - 123
Chlorobenzene	ND		10.0	10.5		ug/L		105	80 - 120
1,1,1,2-Tetrachloroethane	ND		10.0	10.9		ug/L		109	63 - 140
Ethylbenzene	ND		10.0	10.6		ug/L		106	72 - 126
Xylenes, Total	ND		20.0	21.4		ug/L		107	76 - 128
Styrene	ND		10.0	11.2		ug/L		112	71 - 127
Bromoform	ND		10.0	10.6		ug/L		106	46 - 150
1,1,2,2-Tetrachloroethane	ND		10.0	10.1		ug/L		101	62 - 125
Acrylonitrile	ND		100	111		ug/L		111	30 - 140
1,4-Dioxane	ND		200	190	J	ug/L		95	10 - 160
		<b>MS MS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,2-Dichloroethane-d4 (Surr)	99		64 - 135						
Toluene-d8 (Surr)	103		71 - 118						
4-Bromofluorobenzene (Surr)	92		70 - 118						
Dibromofluoromethane (Surr)	97		70 - 128						

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: 180-47984-1 MSD**

**Matrix: Water**

**Analysis Batch: 155089**

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

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Chloromethane	ND		10.0	12.6		ug/L		126	50 - 139	2	35
Vinyl chloride	ND		10.0	11.0		ug/L		110	53 - 138	2	35
Bromomethane	ND		10.0	8.77		ug/L		88	33 - 150	1	35
Chloroethane	ND		10.0	10.8		ug/L		108	36 - 142	9	35
1,1-Dichloroethene	ND		10.0	8.18		ug/L		82	65 - 136	4	35
Acetone	ND		20.0	22.1		ug/L		111	22 - 150	5	35
Carbon disulfide	ND		10.0	8.13		ug/L		81	54 - 132	1	35
Methylene Chloride	ND		10.0	9.10		ug/L		91	63 - 129	7	35
trans-1,2-Dichloroethene	ND		10.0	9.04		ug/L		90	73 - 126	4	35
Methyl tert-butyl ether	0.19	J	10.0	9.59		ug/L		94	64 - 123	6	35
1,1-Dichloroethane	ND		10.0	9.74		ug/L		97	73 - 126	6	35
cis-1,2-Dichloroethene	0.63	J	10.0	9.76		ug/L		91	70 - 120	1	35
Bromochloromethane	ND		10.0	10.1		ug/L		101	70 - 127	7	35
2-Butanone (MEK)	ND		20.0	27.3		ug/L		136	39 - 138	10	35
Chloroform	2.2		10.0	11.6		ug/L		94	72 - 127	1	35
1,1,1-Trichloroethane	ND		10.0	8.92		ug/L		89	63 - 133	2	35
Carbon tetrachloride	ND		10.0	9.00		ug/L		90	55 - 150	2	35
Benzene	ND		10.0	9.69		ug/L		97	80 - 120	4	32
1,2-Dichloroethane	ND		10.0	9.95		ug/L		99	68 - 132	4	32
Trichloroethene	31		10.0	37.9		ug/L		73	73 - 120	5	35
1,2-Dichloropropane	ND		10.0	11.3		ug/L		113	76 - 124	4	34
Bromodichloromethane	ND		10.0	9.45		ug/L		95	66 - 130	1	35
cis-1,3-Dichloropropene	ND		10.0	11.1		ug/L		111	66 - 120	7	35
4-Methyl-2-pentanone (MIBK)	ND		20.0	23.7		ug/L		118	45 - 145	1	35
Toluene	ND		10.0	9.59		ug/L		96	80 - 123	3	35
trans-1,3-Dichloropropene	ND		10.0	9.90		ug/L		99	65 - 125	1	35
1,1,2-Trichloroethane	ND		10.0	10.1		ug/L		101	77 - 127	1	35
Tetrachloroethene	0.39	J	10.0	10.6		ug/L		102	70 - 135	4	35
2-Hexanone	ND	^c	20.0	24.9		ug/L		125	25 - 132	3	35
Dibromochloromethane	ND		10.0	10.6		ug/L		106	60 - 140	1	35
1,2-Dibromoethane (EDB)	ND		10.0	10.7		ug/L		107	74 - 123	4	35
Chlorobenzene	ND		10.0	10.5		ug/L		105	80 - 120	0	29
1,1,1,2-Tetrachloroethane	ND		10.0	10.2		ug/L		102	63 - 140	6	34
Ethylbenzene	ND		10.0	10.6		ug/L		106	72 - 126	0	33
Xylenes, Total	ND		20.0	21.1		ug/L		106	76 - 128	1	32
Styrene	ND		10.0	11.0		ug/L		110	71 - 127	2	34
Bromoform	ND		10.0	10.8		ug/L		108	46 - 150	2	35
1,1,2,2-Tetrachloroethane	ND		10.0	10.2		ug/L		102	62 - 125	1	35
Acrylonitrile	ND		100	118		ug/L		118	30 - 140	6	35
1,4-Dioxane	ND		200	230		ug/L		115	10 - 160	19	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 135
Toluene-d8 (Surr)	104		71 - 118
4-Bromofluorobenzene (Surr)	99		70 - 118
Dibromofluoromethane (Surr)	104		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: MB 180-155230/5**

**Matrix: Water**

**Analysis Batch: 155230**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			09/29/15 12:50	1
Vinyl chloride	ND		1.0	0.23	ug/L			09/29/15 12:50	1
Bromomethane	ND		1.0	0.31	ug/L			09/29/15 12:50	1
Chloroethane	ND		1.0	0.21	ug/L			09/29/15 12:50	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			09/29/15 12:50	1
Acetone	ND		5.0	2.5	ug/L			09/29/15 12:50	1
Carbon disulfide	ND		1.0	0.21	ug/L			09/29/15 12:50	1
Methylene Chloride	ND		1.0	0.13	ug/L			09/29/15 12:50	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			09/29/15 12:50	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			09/29/15 12:50	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			09/29/15 12:50	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			09/29/15 12:50	1
Bromochloromethane	ND		1.0	0.18	ug/L			09/29/15 12:50	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			09/29/15 12:50	1
Chloroform	ND		1.0	0.17	ug/L			09/29/15 12:50	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			09/29/15 12:50	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			09/29/15 12:50	1
Benzene	ND		1.0	0.11	ug/L			09/29/15 12:50	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/29/15 12:50	1
Trichloroethene	ND		1.0	0.14	ug/L			09/29/15 12:50	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			09/29/15 12:50	1
Bromodichloromethane	ND		1.0	0.13	ug/L			09/29/15 12:50	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			09/29/15 12:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			09/29/15 12:50	1
Toluene	ND		1.0	0.15	ug/L			09/29/15 12:50	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			09/29/15 12:50	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/29/15 12:50	1
Tetrachloroethene	ND		1.0	0.15	ug/L			09/29/15 12:50	1
2-Hexanone	ND		5.0	0.16	ug/L			09/29/15 12:50	1
Dibromochloromethane	ND		1.0	0.14	ug/L			09/29/15 12:50	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			09/29/15 12:50	1
Chlorobenzene	ND		1.0	0.14	ug/L			09/29/15 12:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			09/29/15 12:50	1
Ethylbenzene	ND		1.0	0.23	ug/L			09/29/15 12:50	1
Xylenes, Total	ND		3.0	0.49	ug/L			09/29/15 12:50	1
Styrene	ND		1.0	0.097	ug/L			09/29/15 12:50	1
Bromoform	ND		1.0	0.19	ug/L			09/29/15 12:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/29/15 12:50	1
Acrylonitrile	ND		20	0.55	ug/L			09/29/15 12:50	1
1,4-Dioxane	ND		200	34	ug/L			09/29/15 12:50	1
	<b>MB</b>	<b>MB</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	100		64 - 135					09/29/15 12:50	1
Toluene-d8 (Surr)	107		71 - 118					09/29/15 12:50	1
4-Bromofluorobenzene (Surr)	92		70 - 118					09/29/15 12:50	1
Dibromofluoromethane (Surr)	100		70 - 128					09/29/15 12:50	1

# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: LCS 180-155230/8**

**Matrix: Water**

**Analysis Batch: 155230**

**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	11.8		ug/L		118	50 - 139
Vinyl chloride	10.0	11.0		ug/L		110	53 - 138
Bromomethane	10.0	8.98		ug/L		90	33 - 150
Chloroethane	10.0	10.2		ug/L		102	36 - 142
1,1-Dichloroethene	10.0	8.12		ug/L		81	65 - 136
Acetone	20.0	22.2		ug/L		111	22 - 150
Carbon disulfide	10.0	7.88		ug/L		79	54 - 132
Methylene Chloride	10.0	8.48		ug/L		85	63 - 129
trans-1,2-Dichloroethene	10.0	8.49		ug/L		85	73 - 126
Methyl tert-butyl ether	10.0	8.25		ug/L		82	64 - 123
1,1-Dichloroethane	10.0	9.22		ug/L		92	73 - 126
cis-1,2-Dichloroethene	10.0	8.19		ug/L		82	70 - 120
Bromochloromethane	10.0	9.60		ug/L		96	70 - 127
2-Butanone (MEK)	20.0	22.3		ug/L		112	39 - 138
Chloroform	10.0	8.88		ug/L		89	72 - 127
1,1,1-Trichloroethane	10.0	8.29		ug/L		83	63 - 133
Carbon tetrachloride	10.0	9.19		ug/L		92	55 - 150
Benzene	10.0	9.41		ug/L		94	80 - 120
1,2-Dichloroethane	10.0	9.62		ug/L		96	68 - 132
Trichloroethene	10.0	10.7		ug/L		107	73 - 120
1,2-Dichloropropane	10.0	10.7		ug/L		107	76 - 124
Bromodichloromethane	10.0	9.04		ug/L		90	66 - 130
cis-1,3-Dichloropropene	10.0	9.54		ug/L		95	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	22.4		ug/L		112	45 - 145
Toluene	10.0	10.5		ug/L		105	80 - 123
trans-1,3-Dichloropropene	10.0	9.51		ug/L		95	65 - 125
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	77 - 127
Tetrachloroethene	10.0	11.0		ug/L		110	70 - 135
2-Hexanone	20.0	25.6		ug/L		128	25 - 132
Dibromochloromethane	10.0	10.5		ug/L		105	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.6		ug/L		106	74 - 123
Chlorobenzene	10.0	11.0		ug/L		110	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	63 - 140
Ethylbenzene	10.0	11.1		ug/L		111	72 - 126
Xylenes, Total	20.0	22.1		ug/L		111	76 - 128
Styrene	10.0	11.8		ug/L		118	71 - 127
Bromoform	10.0	11.6		ug/L		116	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	62 - 125
Acrylonitrile	100	108		ug/L		108	30 - 140
1,4-Dioxane	200	219		ug/L		109	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		64 - 135
Toluene-d8 (Surr)	110		71 - 118
4-Bromofluorobenzene (Surr)	101		70 - 118
Dibromofluoromethane (Surr)	99		70 - 128

# QC Sample Results

Client: Groundwater Sciences Corporation  
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: MB 180-155405/5**  
**Matrix: Water**  
**Analysis Batch: 155405**

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.28	ug/L			09/30/15 12:44	1
Vinyl chloride	ND		1.0	0.23	ug/L			09/30/15 12:44	1
Bromomethane	ND		1.0	0.31	ug/L			09/30/15 12:44	1
Chloroethane	ND		1.0	0.21	ug/L			09/30/15 12:44	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			09/30/15 12:44	1
Acetone	ND		5.0	2.5	ug/L			09/30/15 12:44	1
Carbon disulfide	ND		1.0	0.21	ug/L			09/30/15 12:44	1
Methylene Chloride	ND		1.0	0.13	ug/L			09/30/15 12:44	1
trans-1,2-Dichloroethene	ND		1.0	0.17	ug/L			09/30/15 12:44	1
Methyl tert-butyl ether	ND		1.0	0.18	ug/L			09/30/15 12:44	1
1,1-Dichloroethane	ND		1.0	0.12	ug/L			09/30/15 12:44	1
cis-1,2-Dichloroethene	ND		1.0	0.24	ug/L			09/30/15 12:44	1
Bromochloromethane	ND		1.0	0.18	ug/L			09/30/15 12:44	1
2-Butanone (MEK)	ND		5.0	0.55	ug/L			09/30/15 12:44	1
Chloroform	ND		1.0	0.17	ug/L			09/30/15 12:44	1
1,1,1-Trichloroethane	ND		1.0	0.29	ug/L			09/30/15 12:44	1
Carbon tetrachloride	ND		1.0	0.14	ug/L			09/30/15 12:44	1
Benzene	ND		1.0	0.11	ug/L			09/30/15 12:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/30/15 12:44	1
Trichloroethene	ND		1.0	0.14	ug/L			09/30/15 12:44	1
1,2-Dichloropropane	ND		1.0	0.095	ug/L			09/30/15 12:44	1
Bromodichloromethane	ND		1.0	0.13	ug/L			09/30/15 12:44	1
cis-1,3-Dichloropropene	ND		1.0	0.19	ug/L			09/30/15 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53	ug/L			09/30/15 12:44	1
Toluene	ND		1.0	0.15	ug/L			09/30/15 12:44	1
trans-1,3-Dichloropropene	ND		1.0	0.15	ug/L			09/30/15 12:44	1
1,1,2-Trichloroethane	ND		1.0	0.20	ug/L			09/30/15 12:44	1
Tetrachloroethene	ND		1.0	0.15	ug/L			09/30/15 12:44	1
2-Hexanone	ND		5.0	0.16	ug/L			09/30/15 12:44	1
Dibromochloromethane	ND		1.0	0.14	ug/L			09/30/15 12:44	1
1,2-Dibromoethane (EDB)	ND		1.0	0.18	ug/L			09/30/15 12:44	1
Chlorobenzene	ND		1.0	0.14	ug/L			09/30/15 12:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.28	ug/L			09/30/15 12:44	1
Ethylbenzene	ND		1.0	0.23	ug/L			09/30/15 12:44	1
Xylenes, Total	ND		3.0	0.49	ug/L			09/30/15 12:44	1
Styrene	ND		1.0	0.097	ug/L			09/30/15 12:44	1
Bromoform	ND		1.0	0.19	ug/L			09/30/15 12:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.20	ug/L			09/30/15 12:44	1
Acrylonitrile	ND		20	0.55	ug/L			09/30/15 12:44	1
1,4-Dioxane	ND		200	34	ug/L			09/30/15 12:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		64 - 135		09/30/15 12:44	1
Toluene-d8 (Surr)	108		71 - 118		09/30/15 12:44	1
4-Bromofluorobenzene (Surr)	93		70 - 118		09/30/15 12:44	1
Dibromofluoromethane (Surr)	98		70 - 128		09/30/15 12:44	1



# QC Sample Results

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Lab Sample ID: LCS 180-155405/8**

**Matrix: Water**

**Analysis Batch: 155405**

**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	11.7		ug/L		117	50 - 139
Vinyl chloride	10.0	10.1		ug/L		101	53 - 138
Bromomethane	10.0	9.18		ug/L		92	33 - 150
Chloroethane	10.0	9.96		ug/L		100	36 - 142
1,1-Dichloroethene	10.0	7.85		ug/L		79	65 - 136
Acetone	20.0	19.4		ug/L		97	22 - 150
Carbon disulfide	10.0	7.27		ug/L		73	54 - 132
Methylene Chloride	10.0	8.16		ug/L		82	63 - 129
trans-1,2-Dichloroethene	10.0	7.84		ug/L		78	73 - 126
Methyl tert-butyl ether	10.0	8.02		ug/L		80	64 - 123
1,1-Dichloroethane	10.0	8.95		ug/L		89	73 - 126
cis-1,2-Dichloroethene	10.0	8.19		ug/L		82	70 - 120
Bromochloromethane	10.0	9.14		ug/L		91	70 - 127
2-Butanone (MEK)	20.0	22.2		ug/L		111	39 - 138
Chloroform	10.0	8.68		ug/L		87	72 - 127
1,1,1-Trichloroethane	10.0	7.88		ug/L		79	63 - 133
Carbon tetrachloride	10.0	8.29		ug/L		83	55 - 150
Benzene	10.0	9.14		ug/L		91	80 - 120
1,2-Dichloroethane	10.0	9.24		ug/L		92	68 - 132
Trichloroethene	10.0	9.79		ug/L		98	73 - 120
1,2-Dichloropropane	10.0	10.5		ug/L		105	76 - 124
Bromodichloromethane	10.0	8.68		ug/L		87	66 - 130
cis-1,3-Dichloropropene	10.0	9.16		ug/L		92	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	20.4		ug/L		102	45 - 145
Toluene	10.0	9.43		ug/L		94	80 - 123
trans-1,3-Dichloropropene	10.0	9.19		ug/L		92	65 - 125
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	77 - 127
Tetrachloroethene	10.0	9.98		ug/L		100	70 - 135
2-Hexanone	20.0	21.5		ug/L		107	25 - 132
Dibromochloromethane	10.0	9.76		ug/L		98	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	74 - 123
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.2		ug/L		102	63 - 140
Ethylbenzene	10.0	10.2		ug/L		102	72 - 126
Xylenes, Total	20.0	20.3		ug/L		102	76 - 128
Styrene	10.0	11.2		ug/L		112	71 - 127
Bromoform	10.0	10.8		ug/L		108	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.1		ug/L		101	62 - 125
Acrylonitrile	100	108		ug/L		108	30 - 140
1,4-Dioxane	200	207		ug/L		103	10 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		64 - 135
Toluene-d8 (Surr)	98		71 - 118
4-Bromofluorobenzene (Surr)	90		70 - 118
Dibromofluoromethane (Surr)	91		70 - 128



# QC Association Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

## GC/MS VOA

### Analysis Batch: 155089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47984-1	HD-MW-3-0/1-0	Total/NA	Water	8260C	
180-47984-1 MS	HD-MW-3-0/1-0	Total/NA	Water	8260C	
180-47984-1 MSD	HD-MW-3-0/1-0	Total/NA	Water	8260C	
180-47984-6	HD-QC5-0/1-2	Total/NA	Water	8260C	
LCS 180-155089/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-155089/4	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 155230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47984-3	HD-MW-32D-0/1-0	Total/NA	Water	8260C	
180-47984-4	HD-MW-32S-0/1-0	Total/NA	Water	8260C	
180-47984-5	HD-QC2-0/1-1	Total/NA	Water	8260C	
LCS 180-155230/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-155230/5	Method Blank	Total/NA	Water	8260C	

### Analysis Batch: 155405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-47984-2	HD-MW-28-0/1-0	Total/NA	Water	8260C	
180-47984-3 - DL	HD-MW-32D-0/1-0	Total/NA	Water	8260C	
LCS 180-155405/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-155405/5	Method Blank	Total/NA	Water	8260C	

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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

**Date Collected: 09/21/15 09:30**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-1**

**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	155089	09/28/15 13:33	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-28-0/1-0**

**Date Collected: 09/21/15 10:31**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-2**

**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	155405	09/30/15 15:50	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-32D-0/1-0**

**Date Collected: 09/21/15 12:57**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-3**

**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		10	5 mL	5 mL	155230	09/29/15 19:57	DLF	TAL PIT
Instrument ID: CHHP6										
Total/NA	Analysis	8260C	DL	50	5 mL	5 mL	155405	09/30/15 16:14	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-MW-32S-0/1-0**

**Date Collected: 09/21/15 14:18**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-4**

**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		10	5 mL	5 mL	155230	09/29/15 20:47	DLF	TAL PIT
Instrument ID: CHHP6										

**Client Sample ID: HD-QC2-0/1-1**

**Date Collected: 09/21/15 08:00**

**Date Received: 09/22/15 09:10**

**Lab Sample ID: 180-47984-5**

**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		10	5 mL	5 mL	155230	09/29/15 21:11	DLF	TAL PIT
Instrument ID: CHHP6										

# Lab Chronicle

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

**Client Sample ID: HD-QC5-0/1-2**

**Lab Sample ID: 180-47984-6**

**Date Collected: 09/21/15 12:00**

**Matrix: Water**

**Date Received: 09/22/15 09:10**

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	155089	09/28/15 13:00	DLF	TAL PIT
Instrument ID: CHHP6										

**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

DLF = Donald Ferguson

# Certification Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

## Laboratory: TestAmerica Pittsburgh

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Pennsylvania	NELAP	3	02-00416	04-30-16

# Method Summary

Client: Groundwater Sciences Corporation  
Project/Site: Harley Davidson

TestAmerica Job ID: 180-47984-1

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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: 180-47984-1

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<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Collected</b>	<b>Received</b>
180-47984-1	HD-MW-3-0/1-0	Water	09/21/15 09:30	09/22/15 09:10
180-47984-2	HD-MW-28-0/1-0	Water	09/21/15 10:31	09/22/15 09:10
180-47984-3	HD-MW-32D-0/1-0	Water	09/21/15 12:57	09/22/15 09:10
180-47984-4	HD-MW-32S-0/1-0	Water	09/21/15 14:18	09/22/15 09:10
180-47984-5	HD-QC2-0/1-1	Water	09/21/15 08:00	09/22/15 09:10
180-47984-6	HD-QC5-0/1-2	Water	09/21/15 12:00	09/22/15 09:10

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Analysis Batch Number: 149469Lab Sample ID: IC 180-149469/4 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 14:00 Lab File ID: 60731004.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.23	Incomplete Integration	fergusond	08/03/15 10:46
1,4-Dioxane	8.03	Incomplete Integration	fergusond	08/03/15 10:46

Lab Sample ID: ICIS 180-149469/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 14:24 Lab File ID: 60731005.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:47

Lab Sample ID: IC 180-149469/7 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 15:13 Lab File ID: 60731007.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:27

Lab Sample ID: IC 180-149469/8 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 15:37 Lab File ID: 60731008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:13

Lab Sample ID: IC 180-149469/9 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 16:01 Lab File ID: 60731009.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:06

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Analysis Batch Number: 149469Lab Sample ID: IC 180-149469/10 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 16:25 Lab File ID: 60731010.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	08/03/15 10:08

Lab Sample ID: IC 180-149469/14 Client Sample ID: \_\_\_\_\_Date Analyzed: 07/31/15 18:02 Lab File ID: 60731014.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.68	Poor chromatography	fergusond	08/03/15 11:05
Acetone	3.42	Poor chromatography	fergusond	08/03/15 11:05
Acrylonitrile	4.51	Poor chromatography	fergusond	08/03/15 11:05
1,1,1-Trichloroethane	6.55	Poor chromatography	fergusond	08/03/15 11:05
Isobutyl alcohol	6.90	Poor chromatography	fergusond	08/03/15 11:05



## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Analysis Batch Number: 155089Lab Sample ID: CCVIS 180-155089/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/28/15 11:03 Lab File ID: 60928002.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.04	Incomplete Integration	fergusond	09/28/15 11:24

Lab Sample ID: 180-47984-1 Client Sample ID: HD-MW-3-0/1-0Date Analyzed: 09/28/15 13:33 Lab File ID: 60928006.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.57	Incomplete Integration	fergusond	09/28/15 13:54

Lab Sample ID: LCS 180-155089/8 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/28/15 14:21 Lab File ID: 60928008.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	09/28/15 14:43

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Analysis Batch Number: 155405Lab Sample ID: CCVIS 180-155405/2 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/30/15 11:30 Lab File ID: 60930002.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Incomplete Integration	fergusond	09/30/15 11:58

Lab Sample ID: CCV 180-155405/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 09/30/15 11:54 Lab File ID: 60930003.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TBA-d9 (IS)	4.23	Incomplete Integration	fergusond	09/30/15 12:12

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration				
					Reagent ID	Volume Added						
VOA8260INT_00039	08/02/15	07/02/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00067	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_00067	02/01/18		Restek, Lot A093504		(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_00042	10/11/15	09/11/15	Methanol, Lot 99494	10 mL	VOA8260INTRES_00068	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_00068	02/01/18		Restek, Lot A093504		(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_00039	08/02/15	07/02/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00066	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_00066	01/31/19		Restek, Lot A0100424		(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_00042	10/11/15	09/11/15	Methanol, Lot 99494	100 mL	VOA8260SURRES_00077	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_00077	01/31/19		Restek, Lot A0101000		(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_00144	10/01/15	09/24/15	Methanol, Lot 99494	10 mL	VOA8260GAS2ND_00114	0.1 mL	Bromomethane	25 ug/mL				
							Chloroethane	25 ug/mL				
							Chloromethane	25 ug/mL				
							Vinyl chloride	25 ug/mL				
					VOA8260VOA2ND_00141					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.: 180-47984-1

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_00114	04/30/18		Restek, Lot A0111273			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00141	10/03/15	09/03/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00036	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.: 180-47984-1

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_00036	01/31/17		Restek, Lot A0108163		(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
VOA8260VOAPRI_00134	08/03/15	07/27/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00110	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00129	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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	125 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
							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_00110	04/30/18		Restek, Lot A011070			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00129	08/07/15	07/07/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00047	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_00030	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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



REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	1250 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_00047	04/30/18		Restek, Lot A0110400			(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_00030	02/28/16		Restek, Lot A0108166			(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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Iodomethane	2500 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Isopropylbenzene	2500 ug/mL
							m-Xylene & p-Xylene	2500 ug/mL
							Methyl acetate	12500 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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
VOA8260VOAPRI_00145	10/01/15	09/24/15	Methanol, Lot 99494	10 mL	VOA8260GAS1ST_00117	0.1 mL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
							Vinyl chloride	25 ug/mL					
					VOA8260VOAPRI_00142						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												
Xylenes, Total	50 ug/mL												
.VOA8260GAS1ST_00117	04/30/18		Restek, Lot A0110070				(Purchased Reagent)	Bromomethane	2500 ug/mL				
								Chloroethane	2500 ug/mL				
								Chloromethane	2500 ug/mL				
								Vinyl chloride	2500 ug/mL				
.VOA8260VOAPRI_00142	10/03/15	09/03/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00033	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												

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
..VOA8260MEGA1_00033	02/28/16		Restek, Lot A0108166		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
<b>voaWAcro2nd R_00006</b>	08/07/15	07/07/15	Methanol, Lot 85233	100 mL	VOAACRRES2ND_00065	0.125 mL	Acrolein	25 ug/mL
.VOAACRRES2ND_00065	09/30/15		Restek, Lot A0111005		(Purchased Reagent)		Acrolein	20000 ug/mL
<b>voaWeemix1Res_00001</b>	08/20/15	07/20/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00025	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_00025	09/30/16		Restek, Lot A0109701		(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
<b>voaWket1Reste_00001</b>	08/02/15	07/02/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00046	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_00046	04/30/18		Restek, Lot A0110400		(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>voaWket1stRes_00001</b>	10/14/15	09/14/15	Methanol, Lot 99494	50 mL	VOA8260KET1ST_00051	0.1 mL	2-Butanone (MEK)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00051	04/30/18		Restek, Lot A0110400		(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>voaWketmix2nd_00002</b>	10/22/15	09/22/15	Methanol, Lot 99494	50 mL	VOA8260KET2ND_00054	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_00054	05/31/18		Restek, Lot A0110970		(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>voaWValst Res_00003</b>	08/23/15	07/23/15	Methanol, Lot 85233	25 mL	VOA8260VARES_00055	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00055	08/31/15		Restek, Lot A0109190		(Purchased Reagent)		Vinyl acetate	5000 ug/mL

Reagent

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**VOA8260GAS1ST\_00110**



# 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.:** A0110070  
**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 :** April 30, 2018 **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)	2,499.9 µg/mL	+/-	17.9502	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	30.0934	µg/mL	Unstressed
	Purity 99%		+/-	34.1055	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,500.1 µg/mL	+/-	17.2963	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	29.7101	µg/mL	Unstressed
	Purity 99%		+/-	33.7686	µg/mL	Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/-	16.5642	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	29.2906	µg/mL	Unstressed
	Purity 99%		+/-	33.4004	µg/mL	Stressed
4	1,3-Butadiene	2,500.0 µg/mL	+/-	17.0072	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	29.5416	µg/mL	Unstressed
	Purity 99%		+/-	33.6200	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,499.8 µg/mL	+/-	18.9451	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	30.6969	µg/mL	Unstressed
	Purity 99%		+/-	34.6391	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/-	17.6395	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	29.9122	µg/mL	Unstressed
	Purity 99%		+/-	33.9470	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.2 µg/mL	+/-	16.7318	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	29.3854	µg/mL	Unstressed
	Purity 99%		+/-	33.4835	µg/mL	Stressed



8	Trichlorofluoromethane (CFC-11)	2,500.3 µg/mL	+/- 16.5866	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 29.3037	µg/mL	Unstressed
	Purity 99%		+/- 33.4120	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)

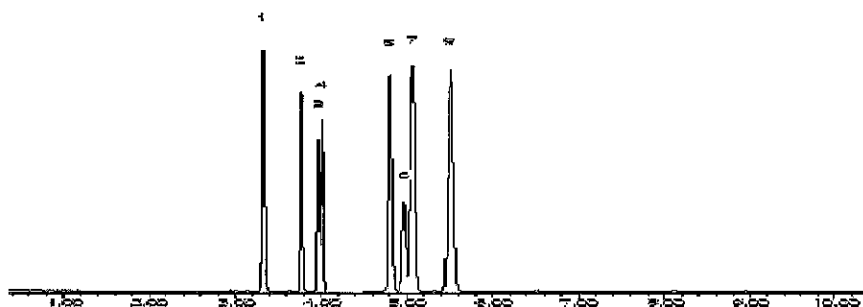
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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.

*[Signature]*  
F. Joseph Tallon - Mix Technician

**Date Mixed:** 02-Apr-2015      **Balance:** B251644995

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

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

Reagent

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**VOA8260GAS1ST\_00117**



# 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 **Lot No.:** A0110070

**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 :** April 30, 2018 **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)	2,499.9 µg/mL	+/-	17.9502	µg/mL Gravimetric
	CAS # 75-71-8 (Lot Q167-08)		+/-	30.0934	µg/mL Unstressed
	Purity 99%		+/-	34.1055	µg/mL Stressed
2	Chloromethane (methyl chloride)	2,500.1 µg/mL	+/-	17.2963	µg/mL Gravimetric
	CAS # 74-87-3 (Lot SHBC8470V)		+/-	29.7101	µg/mL Unstressed
	Purity 99%		+/-	33.7686	µg/mL Stressed
3	Vinyl chloride	2,500.2 µg/mL	+/-	16.5642	µg/mL Gravimetric
	CAS # 75-01-4 (Lot 17542)		+/-	29.2906	µg/mL Unstressed
	Purity 99%		+/-	33.4004	µg/mL Stressed
4	1,3-Butadiene	2,500.0 µg/mL	+/-	17.0072	µg/mL Gravimetric
	CAS # 106-99-0 (Lot SHBF3387V)		+/-	29.5416	µg/mL Unstressed
	Purity 99%		+/-	33.6200	µg/mL Stressed
5	Bromomethane (methyl bromide)	2,499.8 µg/mL	+/-	18.9451	µg/mL Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	30.6969	µg/mL Unstressed
	Purity 99%		+/-	34.6391	µg/mL Stressed
6	Chloroethane (ethyl chloride)	2,500.3 µg/mL	+/-	17.6395	µg/mL Gravimetric
	CAS # 75-00-3 (Lot SHBD1717V)		+/-	29.9122	µg/mL Unstressed
	Purity 99%		+/-	33.9470	µg/mL Stressed
7	Dichlorofluoromethane (CFC-21)	2,500.2 µg/mL	+/-	16.7318	µg/mL Gravimetric
	CAS # 75-43-4 (Lot Q9B-58)		+/-	29.3854	µg/mL Unstressed
	Purity 99%		+/-	33.4835	µg/mL Stressed

8	Trichlorofluoromethane (CFC-11)	2,500.3 µg/mL	+/- 16.5866	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot SHBD5121V)		+/- 29.3037	µg/mL	Unstressed
	Purity 99%		+/- 33.4120	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)

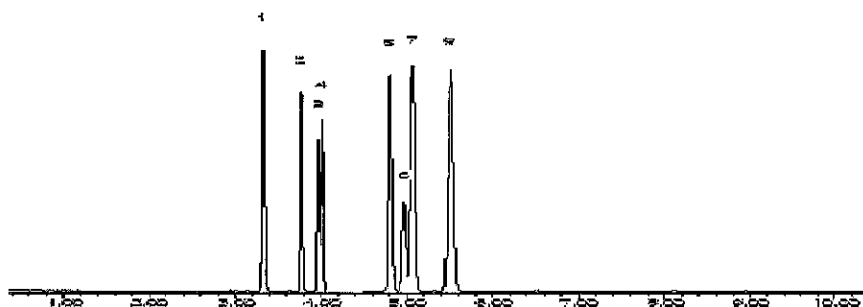
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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.

*[Signature]*  
F. Joseph Tallon - Mix Technician

**Date Mixed:** 02-Apr-2015      **Balance:** B251644995

*[Signature]*  
Tyler Brown - QA Analyst

**Date Passed:** 08-Apr-2015

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

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**VOA8260GAS2ND\_00114**



# 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.:** A0111273  
**Description :** 8260 List 1 / Std #3 Gases (2015)  
8260 List 1 / Std #3 Gases (2015) 2,500 ug/ml, P&T Methanol, 1 mi/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** May 31, 2018 **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)	2,497.6 µg/mL	+/-	24.0984	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 21773)		+/-	34.1039	µg/mL	Unstressed
	Purity 99%		+/-	37.6853	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,503.8 µg/mL	+/-	21.5368	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	32.3897	µg/mL	Unstressed
	Purity 99%		+/-	36.1592	µg/mL	Stressed
3	Vinyl chloride	2,492.0 µg/mL	+/-	23.1023	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	33.3685	µg/mL	Unstressed
	Purity 99%		+/-	37.0056	µg/mL	Stressed
4	1,3-Butadiene	2,488.6 µg/mL	+/-	19.2643	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 18349)		+/-	30.8102	µg/mL	Unstressed
	Purity 99%		+/-	34.7063	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,491.9 µg/mL	+/-	20.7776	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	31.8022	µg/mL	Unstressed
	Purity 99%		+/-	35.5993	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,516.0 µg/mL	+/-	19.4764	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	31.1495	µg/mL	Unstressed
	Purity 99%		+/-	35.0885	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,503.3 µg/mL	+/-	18.8823	µg/mL	Gravimetric
	CAS # 75-43-4.SEC (Lot SHBC0858V)		+/-	30.6846	µg/mL	Unstressed
	Purity 99%		+/-	34.6386	µg/mL	Stressed

Reagent

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**VOA8260INTRES\_00067**



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## Certificate of Analysis

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*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. :** 567649 **Lot No.:** A093504  
**Description :** 8260 Internal Standard  
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul  
**Container Size :** 5 mL **Pkg Amt:** > 5 mL  
**Expiration Date :** February 2018 **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	5,000.0 µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS # 25725-11-5		+/-	110.6323	µg/mL	Unstressed
	Purity 99%		+/-	111.0833	µg/mL	Stressed
2	Fluorobenzene	250.0 µg/mL	+/-	1.4535	µg/mL	Gravimetric
	CAS # 462-06-6		+/-	5.5316	µg/mL	Unstressed
	Purity 99%		+/-	5.5542	µg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 µg/mL	+/-	29.0689	µg/mL	Gravimetric
	CAS # 17647-74-4		+/-	110.6323	µg/mL	Unstressed
	Purity 99%		+/-	111.0833	µg/mL	Stressed
4	Chlorobenzene-d5	250.0 µg/mL	+/-	1.4535	µg/mL	Gravimetric
	CAS # 3114-55-4		+/-	5.5316	µg/mL	Unstressed
	Purity 99%		+/-	5.5542	µg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 µg/mL	+/-	1.4535	µg/mL	Gravimetric
	CAS # 3855-82-1		+/-	5.5316	µg/mL	Unstressed
	Purity 99%		+/-	5.5542	µg/mL	Stressed

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



Reagent

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**VOA8260INTRES\_00068**



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## Certificate of Analysis

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

<b>Catalog No. :</b> 567649	<b>Lot No.:</b> A093504
<b>Description :</b> 8260 Internal Standard	
8260 Internal Standard 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul	
<b>Container Size :</b> 5 mL	<b>Pkg Amt:</b> > 5 mL
<b>Expiration Date :</b> February 2018	<b>Storage:</b> 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	5,000.0 μg/mL	+/-	29.0689	μg/mL	Gravimetric
	CAS # 25725-11-5		+/-	110.6323	μg/mL	Unstressed
	Purity 99%		+/-	111.0833	μg/mL	Stressed
2	Fluorobenzene	250.0 μg/mL	+/-	1.4535	μg/mL	Gravimetric
	CAS # 462-06-6		+/-	5.5316	μg/mL	Unstressed
	Purity 99%		+/-	5.5542	μg/mL	Stressed
3	1,4-Dioxane-d8	5,000.0 μg/mL	+/-	29.0689	μg/mL	Gravimetric
	CAS # 17647-74-4		+/-	110.6323	μg/mL	Unstressed
	Purity 99%		+/-	111.0833	μg/mL	Stressed
4	Chlorobenzene-d5	250.0 μg/mL	+/-	1.4535	μg/mL	Gravimetric
	CAS # 3114-55-4		+/-	5.5316	μg/mL	Unstressed
	Purity 99%		+/-	5.5542	μg/mL	Stressed
5	1,4-Dichlorobenzene-d4	250.0 μg/mL	+/-	1.4535	μg/mL	Gravimetric
	CAS # 3855-82-1		+/-	5.5316	μg/mL	Unstressed
	Purity 99%		+/-	5.5542	μg/mL	Stressed

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

Reagent

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**VOA8260KET1ST\_00046**

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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 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00047**

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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 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00051**

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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 **Lot No.:** A0110400  
**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 :** April 30, 2018 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,506.8 µg/mL	+/-	73.2301	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot 07196AK)		+/-	665.6407	µg/mL	Unstressed
	Purity 99%		+/-	666.3747	µg/mL	Stressed
2	2-Butanone (MEK)	12,504.8 µg/mL	+/-	73.2184	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot BCBH7802V)		+/-	665.5343	µg/mL	Unstressed
	Purity 99%		+/-	666.2681	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,509.2 µg/mL	+/-	73.2441	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBF5332V)		+/-	665.7684	µg/mL	Unstressed
	Purity 99%		+/-	666.5025	µg/mL	Stressed
4	2-Hexanone	12,501.6 µg/mL	+/-	73.1996	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKBN7380V)		+/-	665.3640	µg/mL	Unstressed
	Purity 99%		+/-	666.0976	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\_00054**



# 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.: A0110970

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 : May 31, 2018 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Acetone	12,528.0 µg/mL	+/-	73.3542	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot P14A572)		+/-	666.7690	µg/mL	Unstressed
	Purity 99%		+/-	667.5042	µg/mL	Stressed
2	2-Butanone (MEK)	12,530.0 µg/mL	+/-	73.3659	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RA58J)		+/-	666.8755	µg/mL	Unstressed
	Purity 99%		+/-	667.6108	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,585.0 µg/mL	+/-	73.6879	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	669.8027	µg/mL	Unstressed
	Purity 99%		+/-	670.5412	µg/mL	Stressed
4	2-Hexanone	12,516.0 µg/mL	+/-	73.2839	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot ZSVCD-FF)		+/-	666.1304	µg/mL	Unstressed
	Purity 99%		+/-	666.8648	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\_00030**



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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. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **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)	2,521.3 µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBF3466V)		+/-	134.1754	µg/mL	Unstressed
	Purity 99%		+/-	134.3233	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,522.5 µg/mL	+/-	14.6660	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00001135)		+/-	134.2419	µg/mL	Unstressed
	Purity 99%		+/-	134.3899	µg/mL	Stressed
3	1,1-Dichloroethane	2,499.5 µg/mL	+/-	14.5323	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot Q179-33)		+/-	133.0173	µg/mL	Unstressed
	Purity 98%		+/-	133.1640	µg/mL	Stressed
4	tert-Butanol (TBA)	25,002.4 µg/mL	+/-	145.3584	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBC6893V)		+/-	1,330.5704	µg/mL	Unstressed
	Purity 99%		+/-	1,332.0378	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,510.0 µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBC7288V)		+/-	133.5767	µg/mL	Unstressed
	Purity 99%		+/-	133.7240	µg/mL	Stressed
6	Methyl acetate	12,505.4 µg/mL	+/-	72.7037	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBD7134V)		+/-	665.5101	µg/mL	Unstressed
	Purity 98%		+/-	666.2440	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot MKBG5777V)		+/-	133.6453	µg/mL	Unstressed
	Purity 99%		+/-	133.7914	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	<b>CAS #</b> 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	<b>CAS #</b> 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	<b>CAS #</b> 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	<b>CAS #</b> 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	<b>CAS #</b> 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether ( MTBE )		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	<b>CAS #</b> 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	<b>CAS #</b> 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	<b>CAS #</b> 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	<b>CAS #</b> 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	<b>CAS #</b> 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	<b>CAS #</b> 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	<b>CAS #</b> 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4709	µg/mL	Stressed

24	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBF2321V)	2,501.4 µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBC6595V)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBD4617V)	2,509.1 µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBF0943V)	2,504.8 µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot 50996APV)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane CAS # 75-27-4 Purity 98%	(Lot MKBL1617V)	2,507.9 µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBF2002V)	50,001.4 µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10169264)	2,508.1 µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 20936)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBF2730V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot 69796APV)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C363110)	2,502.1 µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,507.5 µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,505.3 µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD2073V)	2,506.5 µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBP0459V)	2,503.2	µg/mL	+/-	14.5536	µg/mL	Gravimetric
					+/-	133.2129	µg/mL	Unstressed
					+/-	133.3598	µg/mL	Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,504.3	µg/mL	+/-	14.5599	µg/mL	Gravimetric
					+/-	133.2707	µg/mL	Unstressed
					+/-	133.4176	µg/mL	Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBD3200V)	2,510.8	µg/mL	+/-	14.5977	µg/mL	Gravimetric
					+/-	133.6166	µg/mL	Unstressed
					+/-	133.7639	µg/mL	Stressed
43	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
					+/-	133.1975	µg/mL	Unstressed
					+/-	133.3444	µg/mL	Stressed
44	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBC9001V)	2,509.6	µg/mL	+/-	14.5912	µg/mL	Gravimetric
					+/-	133.5567	µg/mL	Unstressed
					+/-	133.7040	µg/mL	Stressed
45	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBF1720V)	1,252.6	µg/mL	+/-	7.2829	µg/mL	Gravimetric
					+/-	66.6619	µg/mL	Unstressed
					+/-	66.7355	µg/mL	Stressed
46	o-Xylene CAS # 95-47-6 Purity 98%	(Lot SHBC8668V)	2,503.7	µg/mL	+/-	14.5565	µg/mL	Gravimetric
					+/-	133.2390	µg/mL	Unstressed
					+/-	133.3859	µg/mL	Stressed
47	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBF3427V)	1,253.3	µg/mL	+/-	7.2865	µg/mL	Gravimetric
					+/-	66.6952	µg/mL	Unstressed
					+/-	66.7688	µg/mL	Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot 10182421)	2,503.5	µg/mL	+/-	14.5556	µg/mL	Gravimetric
					+/-	133.2307	µg/mL	Unstressed
					+/-	133.3777	µg/mL	Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10169400)	2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
					+/-	133.1775	µg/mL	Unstressed
					+/-	133.3244	µg/mL	Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBC3410V)	2,507.8	µg/mL	+/-	14.5803	µg/mL	Gravimetric
					+/-	133.4569	µg/mL	Unstressed
					+/-	133.6041	µg/mL	Stressed
51	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,510.3	µg/mL	+/-	14.5948	µg/mL	Gravimetric
					+/-	133.5900	µg/mL	Unstressed
					+/-	133.7373	µg/mL	Stressed
52	chloroform CAS # 67-66-3 Purity 99%	(Lot SHBB7498V)	2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
					+/-	133.1110	µg/mL	Unstressed
					+/-	133.2578	µg/mL	Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot 1428739V)	2,502.5	µg/mL	+/-	14.5498	µg/mL	Gravimetric
					+/-	133.1775	µg/mL	Unstressed
					+/-	133.3244	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 96%	(Lot MKBP5371V)	2,499.5	µg/mL	+/-	14.5322	µg/mL	Gravimetric
					+/-	133.0168	µg/mL	Unstressed
					+/-	133.1635	µg/mL	Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBQ8049V)	2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
					+/-	133.0578	µg/mL	Unstressed
					+/-	133.2045	µg/mL	Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ1732V)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBB7205V)	2,506.4 µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ3305V)	2,503.1 µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,504.0 µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBC1891V)	2,506.1 µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBL3891V)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JIV)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot 68996CMV)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.9 µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot K22W009)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed



72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	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)

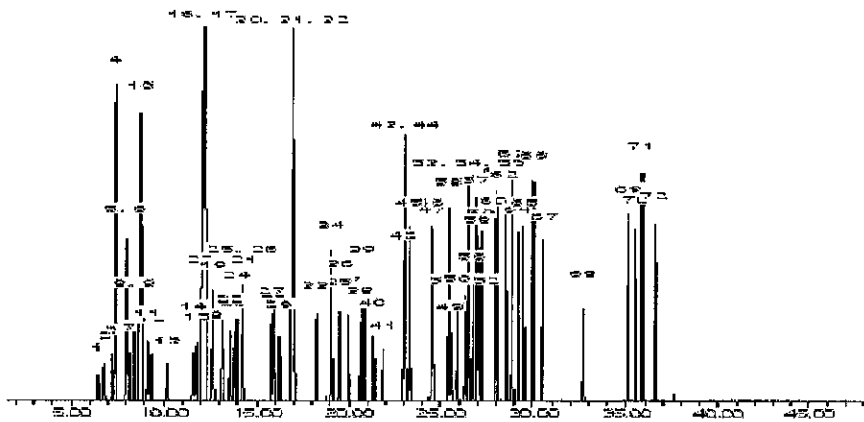
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

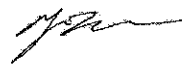
**Det. Type:**  
MSD



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.

  
Kendra Swope - Mix Technician

**Date Mixed:** 07-Jan-2015      **Balance:** 1125113331

  
Tyler Brown - QA Analyst

**Date Passed:** 14-Jan-2015

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

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**VOA8260MEGA1\_00033**



# CERTIFIED REFERENCE MATERIAL

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

## Certificate of Analysis

www.restek.com



### 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. :** 569720 **Lot No.:** A0108166  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **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)	2,521.3 µg/mL	+/-	14.6588	µg/mL	Gravimetric
	CAS # 60-29-7 (Lot SHBF3466V)		+/-	134.1754	µg/mL	Unstressed
	Purity 99%		+/-	134.3233	µg/mL	Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113)	2,522.5 µg/mL	+/-	14.6660	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00001135)		+/-	134.2419	µg/mL	Unstressed
	Purity 99%		+/-	134.3899	µg/mL	Stressed
3	1,1-Dichloroethane	2,499.5 µg/mL	+/-	14.5323	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot Q179-33)		+/-	133.0173	µg/mL	Unstressed
	Purity 98%		+/-	133.1640	µg/mL	Stressed
4	tert-Butanol (TBA)	25,002.4 µg/mL	+/-	145.3584	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBC6893V)		+/-	1,330.5704	µg/mL	Unstressed
	Purity 99%		+/-	1,332.0378	µg/mL	Stressed
5	Iodomethane (methyl iodide)	2,510.0 µg/mL	+/-	14.5934	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot SHBC7288V)		+/-	133.5767	µg/mL	Unstressed
	Purity 99%		+/-	133.7240	µg/mL	Stressed
6	Methyl acetate	12,505.4 µg/mL	+/-	72.7037	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBD7134V)		+/-	665.5101	µg/mL	Unstressed
	Purity 98%		+/-	666.2440	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	2,500.0 µg/mL	+/-	19.2743	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot MKBG5777V)		+/-	133.6453	µg/mL	Unstressed
	Purity 99%		+/-	133.7914	µg/mL	Stressed

8	Methylene chloride (dichloromethane)		2,511.3	µg/mL	+/-	14.6006	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2	(Lot SHBD4974V)			+/-	133.6432	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.7906	µg/mL	Stressed
9	Carbon disulfide		2,511.7	µg/mL	+/-	14.6035	µg/mL	Gravimetric
	<b>CAS #</b> 75-15-0	(Lot C30Y997)			+/-	133.6693	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.8167	µg/mL	Stressed
10	Acrylonitrile		25,017.1	µg/mL	+/-	145.4441	µg/mL	Gravimetric
	<b>CAS #</b> 107-13-1	(Lot 10172706)			+/-	1,331.3554	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	1,332.8236	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,503.9	µg/mL	+/-	14.5577	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2	(Lot MKBG8424V)			+/-	133.2507	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3977	µg/mL	Stressed
12	n-Hexane (C6)		2,511.9	µg/mL	+/-	14.6043	µg/mL	Gravimetric
	<b>CAS #</b> 110-54-3	(Lot SHBF0293V)			+/-	133.6764	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.8239	µg/mL	Stressed
13	1,1-dichloroethene		2,521.3	µg/mL	+/-	14.6588	µg/mL	Gravimetric
	<b>CAS #</b> 75-35-4	(Lot SHBD6170V)			+/-	134.1754	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	134.3233	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.0	µg/mL	+/-	14.5351	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7	(Lot BCBH9246V)			+/-	133.0434	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.1901	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,505.0	µg/mL	+/-	14.5643	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5	(Lot MKBH9850V)			+/-	133.3106	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4576	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,553.8	µg/mL	+/-	363.6739	µg/mL	Gravimetric
	<b>CAS #</b> 78-83-1	(Lot SHBF2852V)			+/-	3,328.9705	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	3,332.6417	µg/mL	Stressed
17	Methyl-tert-butyl ether ( MTBE )		2,504.6	µg/mL	+/-	14.5621	µg/mL	Gravimetric
	<b>CAS #</b> 1634-04-4	(Lot SHBF1193V)			+/-	133.2906	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4376	µg/mL	Stressed
18	Bromochloromethane		2,505.1	µg/mL	+/-	14.5650	µg/mL	Gravimetric
	<b>CAS #</b> 74-97-5	(Lot 00004559)			+/-	133.3172	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4642	µg/mL	Stressed
19	Tetrahydrofuran		5,000.7	µg/mL	+/-	29.0746	µg/mL	Gravimetric
	<b>CAS #</b> 109-99-9	(Lot SHBF2660V)			+/-	266.1270	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	266.4204	µg/mL	Stressed
20	1,1,1-trichloroethane		2,508.1	µg/mL	+/-	14.5825	µg/mL	Gravimetric
	<b>CAS #</b> 71-55-6	(Lot B14Z1114)			+/-	133.4769	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.6241	µg/mL	Stressed
21	Cyclohexane		2,504.0	µg/mL	+/-	14.5585	µg/mL	Gravimetric
	<b>CAS #</b> 110-82-7	(Lot SHBD7873V)			+/-	133.2574	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4043	µg/mL	Stressed
22	1,1-Dichloropropene		2,502.4	µg/mL	+/-	14.5493	µg/mL	Gravimetric
	<b>CAS #</b> 563-58-6	(Lot PR09161302)			+/-	133.1738	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.3207	µg/mL	Stressed
23	carbon tetrachloride		2,505.3	µg/mL	+/-	14.5657	µg/mL	Gravimetric
	<b>CAS #</b> 56-23-5	(Lot SHBC1410V)			+/-	133.3239	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.4709	µg/mL	Stressed

24	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBF2321V)	2,501.4 µg/mL	+/- 14.5432 +/- 133.1177 +/- 133.2645	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot SHBC6595V)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBD4617V)	2,509.1 µg/mL	+/- 14.5883 +/- 133.5301 +/- 133.6774	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBF0943V)	2,504.8 µg/mL	+/- 14.5628 +/- 133.2973 +/- 133.4443	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot 50996APV)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot 01113D0V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	bromodichloromethane CAS # 75-27-4 Purity 98%	(Lot MKBL1617V)	2,507.9 µg/mL	+/- 14.5814 +/- 133.4672 +/- 133.6144	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBF2002V)	50,001.4 µg/mL	+/- 290.6971 +/- 2,660.9612 +/- 2,663.8957	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10169264)	2,508.1 µg/mL	+/- 14.5825 +/- 133.4769 +/- 133.6241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 20936)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBF2730V)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot 69796APV)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot C363110)	2,502.1 µg/mL	+/- 14.5476 +/- 133.1576 +/- 133.3044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	2,507.5 µg/mL	+/- 14.5788 +/- 133.4436 +/- 133.5908	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	2,505.3 µg/mL	+/- 14.5657 +/- 133.3239 +/- 133.4709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBD2073V)	2,506.5 µg/mL	+/- 14.5730 +/- 133.3904 +/- 133.5375	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	dibromochloromethane CAS # 124-48-1 Purity 98%	(Lot MKBP0459V)	2,503.2 µg/mL	+/- 14.5536 +/- 133.2129 +/- 133.3598	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBH3877V)	2,504.3 µg/mL	+/- 14.5599 +/- 133.2707 +/- 133.4176	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBD3200V)	2,510.8 µg/mL	+/- 14.5977 +/- 133.6166 +/- 133.7639	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	2,502.9 µg/mL	+/- 14.5519 +/- 133.1975 +/- 133.3444	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBC9001V)	2,509.6 µg/mL	+/- 14.5912 +/- 133.5567 +/- 133.7040	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBF1720V)	1,252.6 µg/mL	+/- 7.2829 +/- 66.6619 +/- 66.7355	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	o-Xylene CAS # 95-47-6 Purity 98%	(Lot SHBC8668V)	2,503.7 µg/mL	+/- 14.5565 +/- 133.2390 +/- 133.3859	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBF3427V)	1,253.3 µg/mL	+/- 7.2865 +/- 66.6952 +/- 66.7688	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	Styrene CAS # 100-42-5 Purity 99%	(Lot 10182421)	2,503.5 µg/mL	+/- 14.5556 +/- 133.2307 +/- 133.3777	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot 10169400)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBC3410V)	2,507.8 µg/mL	+/- 14.5803 +/- 133.4569 +/- 133.6041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot MKBS3769V)	2,510.3 µg/mL	+/- 14.5948 +/- 133.5900 +/- 133.7373	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	chloroform CAS # 67-66-3 Purity 99%	(Lot SHBB7498V)	2,501.3 µg/mL	+/- 14.5425 +/- 133.1110 +/- 133.2578	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot 1428739V)	2,502.5 µg/mL	+/- 14.5498 +/- 133.1775 +/- 133.3244	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 96%	(Lot MKBP5371V)	2,499.5 µg/mL	+/- 14.5322 +/- 133.0168 +/- 133.1635	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKBQ8049V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

56	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot MKBD4032V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot MKBJ1732V)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKBH8892V)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKBB7205V)	2,506.4 µg/mL	+/- 14.5723 +/- 133.3837 +/- 133.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot S52237V)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCBJ3305V)	2,503.1 µg/mL	+/- 14.5534 +/- 133.2108 +/- 133.3577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKBK3151V)	2,504.0 µg/mL	+/- 14.5585 +/- 133.2574 +/- 133.4043	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKBK4439V)	2,501.1 µg/mL	+/- 14.5418 +/- 133.1044 +/- 133.2511	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBC1891V)	2,506.1 µg/mL	+/- 14.5708 +/- 133.3704 +/- 133.5175	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBL3891V)	2,507.0 µg/mL	+/- 14.5759 +/- 133.4170 +/- 133.5641	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09418JIV)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot 68996CMV)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 99%	(Lot FBL01)	2,505.9 µg/mL	+/- 14.5694 +/- 133.3571 +/- 133.5042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot 26896BM)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3 Purity 98%	(Lot K22W009)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBH4351V)	2,502.6 µg/mL	+/- 14.5505 +/- 133.1842 +/- 133.3311	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,503.4 µg/mL	+/-	14.5548	µg/mL	Gravimetric
	CAS # 87-61-6	(Lot 12912PFV)		+/-	133.2241	µg/mL	Unstressed
	Purity 99%			+/-	133.3710	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)

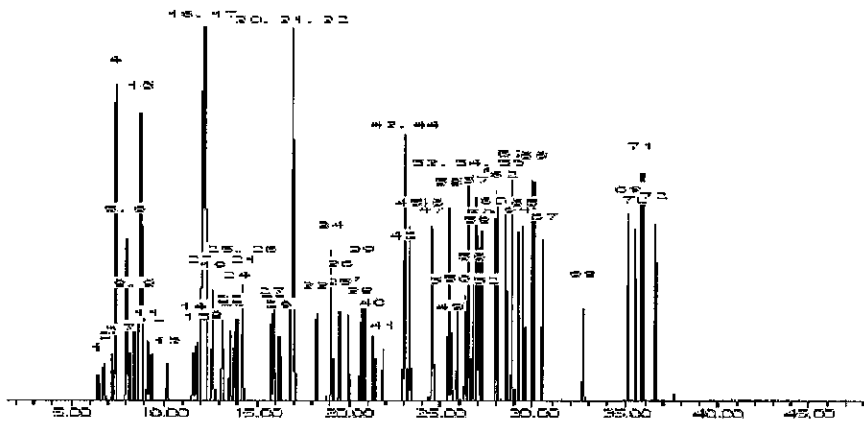
**Carrier Gas:**  
helium-constant pressure 30 psi

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

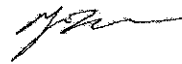
**Det. Type:**  
MSD



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.

  
Kendra Swope - Mix Technician

**Date Mixed:** 07-Jan-2015      **Balance:** 1125113331

  
Tyler Brown - QA Analyst

**Date Passed:** 14-Jan-2015

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



Reagent

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**VOA8260MEGA2\_00036**

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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. :** 569720.sec **Lot No.:** A0108163  
**Description :** 8260 List 1 / Std #1 MegaMix (2015)  
8260 List 1 / Std #1 MegaMix (2015) 1250-62500 µg/ml, P&T Methanol, 1 ml/ampul  
**Container Size :** 2 mL **Pkg Amt:** > 1 mL  
**Expiration Date :** January 31, 2017 **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.SEC (Lot F23X068) Purity 99%	2,501.1 µg/mL	+/-	14.5418	µg/mL Gravimetric
			+/-	133.1044	µg/mL Unstressed
			+/-	133.2511	µg/mL Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1.SEC (Lot 18342) Purity 99%	2,501.1 µg/mL	+/-	14.5418	µg/mL Gravimetric
			+/-	133.1044	µg/mL Unstressed
			+/-	133.2511	µg/mL Stressed
3	1,1-Dichloroethene CAS # 75-35-4.SEC (Lot 903000) Purity 99%	2,502.8 µg/mL	+/-	14.5512	µg/mL Gravimetric
			+/-	133.1908	µg/mL Unstressed
			+/-	133.3377	µg/mL Stressed
4	tert-Butanol (TBA) CAS # 75-65-0.SEC (Lot XYXDO) Purity 98%	25,000.5 µg/mL	+/-	145.3477	µg/mL Gravimetric
			+/-	1,330.4725	µg/mL Unstressed
			+/-	1,331.9397	µg/mL Stressed
5	Iodomethane (methyl iodide) CAS # 74-88-4.SEC (Lot A13Y016) Purity 97%	2,500.5 µg/mL	+/-	14.5383	µg/mL Gravimetric
			+/-	133.0732	µg/mL Unstressed
			+/-	133.2199	µg/mL Stressed
6	Methyl acetate CAS # 79-20-9.SEC (Lot YDQVD) Purity 99%	12,500.6 µg/mL	+/-	72.6759	µg/mL Gravimetric
			+/-	665.2553	µg/mL Unstressed
			+/-	665.9889	µg/mL Stressed
7	Allyl chloride (3-chloropropene) CAS # 107-05-1.SEC (Lot 5MNOA-DQ) Purity 99%	2,501.3 µg/mL	+/-	14.5425	µg/mL Gravimetric
			+/-	133.1110	µg/mL Unstressed
			+/-	133.2578	µg/mL Stressed

8	Methylene chloride (dichloromethane)		2,501.4	µg/mL	+/-	14.5432	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2.SEC	(Lot FGM02)			+/-	133.1177	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2645	µg/mL	Stressed
9	Carbon disulfide		2,501.2	µg/mL	+/-	14.5422	µg/mL	Gravimetric
	<b>CAS #</b> 75-15-0.SEC	(Lot MKBL1376V)			+/-	133.1086	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.2554	µg/mL	Stressed
10	Acrylonitrile		25,002.1	µg/mL	+/-	145.3569	µg/mL	Gravimetric
	<b>CAS #</b> 107-13-1.SEC	(Lot CCFKL)			+/-	1,330.5571	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	1,332.0244	µg/mL	Stressed
11	cis-1,2-Dichloroethene		2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2.SEC	(Lot HGC01-BLKT)			+/-	133.0578	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2045	µg/mL	Stressed
12	n-Hexane (C6)		2,500.1	µg/mL	+/-	14.5358	µg/mL	Gravimetric
	<b>CAS #</b> 110-54-3.SEC	(Lot K24W001)			+/-	133.0499	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.1967	µg/mL	Stressed
13	1,1-Dichloroethane		2,503.0	µg/mL	+/-	14.5527	µg/mL	Gravimetric
	<b>CAS #</b> 75-34-3.SEC	(Lot 2663100)			+/-	133.2041	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.3510	µg/mL	Stressed
14	2,2-Dichloropropane		2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7.SEC	(Lot GI01)			+/-	133.0844	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2312	µg/mL	Stressed
15	trans-1,2-Dichloroethene		2,500.2	µg/mL	+/-	14.5362	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5.SEC	(Lot TS5UB)			+/-	133.0538	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	133.2005	µg/mL	Stressed
16	Isobutanol (2-Methyl-1-propanol)		62,501.3	µg/mL	+/-	363.3687	µg/mL	Gravimetric
	<b>CAS #</b> 78-83-1.SEC	(Lot PH2XK)			+/-	3,326.1766	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	3,329.8447	µg/mL	Stressed
17	Methyl-tert-butyl ether ( MTBE )		2,500.5	µg/mL	+/-	14.5381	µg/mL	Gravimetric
	<b>CAS #</b> 1634-04-4.SEC	(Lot ZAQTA-MS)			+/-	133.0711	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2178	µg/mL	Stressed
18	Bromochloromethane		2,500.6	µg/mL	+/-	14.5388	µg/mL	Gravimetric
	<b>CAS #</b> 74-97-5.SEC	(Lot 345600)			+/-	133.0777	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2245	µg/mL	Stressed
19	Tetrahydrofuran		5,002.3	µg/mL	+/-	29.0835	µg/mL	Gravimetric
	<b>CAS #</b> 109-99-9.SEC	(Lot XWFLA)			+/-	266.2087	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	266.5023	µg/mL	Stressed
20	1,1,1-Trichloroethane		2,501.9	µg/mL	+/-	14.5461	µg/mL	Gravimetric
	<b>CAS #</b> 71-55-6.SEC	(Lot 1103200)			+/-	133.1443	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2911	µg/mL	Stressed
21	Cyclohexane		2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
	<b>CAS #</b> 110-82-7.SEC	(Lot YADRA)			+/-	133.1243	µg/mL	Unstressed
	<b>Purity</b> 99%				+/-	133.2711	µg/mL	Stressed
22	1,1-Dichloropropene		2,501.1	µg/mL	+/-	14.5419	µg/mL	Gravimetric
	<b>CAS #</b> 563-58-6.SEC	(Lot 2028500)			+/-	133.1054	µg/mL	Unstressed
	<b>Purity</b> 97%				+/-	133.2522	µg/mL	Stressed
23	Carbon tetrachloride		2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
	<b>CAS #</b> 56-23-5.SEC	(Lot 11466)			+/-	133.1477	µg/mL	Unstressed
	<b>Purity</b> 98%				+/-	133.2946	µg/mL	Stressed

24	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot OGM01)	2,500.4 µg/mL	+/- 14.5374 +/- 133.0644 +/- 133.2112	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	2,501.9 µg/mL	+/- 14.5461 +/- 133.1443 +/- 133.2911	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	2,500.9 µg/mL	+/- 14.5403 +/- 133.0911 +/- 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene CAS # 79-01-6.SEC Purity 98%	(Lot H04X050)	2,500.6 µg/mL	+/- 14.5387 +/- 133.0760 +/- 133.2228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot 24MSD-CD)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 10171168)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot CHA4A)	50,000.8 µg/mL	+/- 290.6935 +/- 2,660.9280 +/- 2,663.8624	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	2,500.6 µg/mL	+/- 14.5388 +/- 133.0777 +/- 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 7ZLXI-TJ)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	2,500.8 µg/mL	+/- 14.5396 +/- 133.0844 +/- 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 98%	(Lot 2ECIC-NM)	2,501.6 µg/mL	+/- 14.5444 +/- 133.1282 +/- 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99%	(Lot 732700)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	2,500.8 µg/mL	+/- 14.5396 +/- 133.0844 +/- 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot I13W021)	2,501.8	µg/mL	+/-	14.5454	µg/mL	Gravimetric
					+/-	133.1377	µg/mL	Unstressed
					+/-	133.2845	µg/mL	Stressed
41	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 98%	(Lot 1368400)	2,502.1	µg/mL	+/-	14.5472	µg/mL	Gravimetric
					+/-	133.1542	µg/mL	Unstressed
					+/-	133.3011	µg/mL	Stressed
42	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot H161936)	2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
					+/-	133.1310	µg/mL	Unstressed
					+/-	133.2778	µg/mL	Stressed
43	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01-QSHR)	2,500.8	µg/mL	+/-	14.5396	µg/mL	Gravimetric
					+/-	133.0844	µg/mL	Unstressed
					+/-	133.2312	µg/mL	Stressed
44	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE-GR)	2,500.3	µg/mL	+/-	14.5367	µg/mL	Gravimetric
					+/-	133.0578	µg/mL	Unstressed
					+/-	133.2045	µg/mL	Stressed
45	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot OUKMG-GB)	1,250.4	µg/mL	+/-	7.2698	µg/mL	Gravimetric
					+/-	66.5422	µg/mL	Unstressed
					+/-	66.6156	µg/mL	Stressed
46	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01-KTPK)	2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
					+/-	133.1110	µg/mL	Unstressed
					+/-	133.2578	µg/mL	Stressed
47	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot GM01)	1,251.6	µg/mL	+/-	7.2771	µg/mL	Gravimetric
					+/-	66.6087	µg/mL	Unstressed
					+/-	66.6822	µg/mL	Stressed
48	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	2,500.9	µg/mL	+/-	14.5403	µg/mL	Gravimetric
					+/-	133.0911	µg/mL	Unstressed
					+/-	133.2378	µg/mL	Stressed
49	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot 2PHXG-IH)	2,501.3	µg/mL	+/-	14.5425	µg/mL	Gravimetric
					+/-	133.1110	µg/mL	Unstressed
					+/-	133.2578	µg/mL	Stressed
50	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 1039300)	2,501.5	µg/mL	+/-	14.5439	µg/mL	Gravimetric
					+/-	133.1243	µg/mL	Unstressed
					+/-	133.2711	µg/mL	Stressed
51	1,1,2,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 99%	(Lot CFA4D-AQ)	2,502.9	µg/mL	+/-	14.5519	µg/mL	Gravimetric
					+/-	133.1975	µg/mL	Unstressed
					+/-	133.3444	µg/mL	Stressed
52	Chloroform CAS # 67-66-3.SEC Purity 99%	(Lot 1297547)	2,501.6	µg/mL	+/-	14.5447	µg/mL	Gravimetric
					+/-	133.1310	µg/mL	Unstressed
					+/-	133.2778	µg/mL	Stressed
53	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 98%	(Lot OGI01)	2,501.9	µg/mL	+/-	14.5465	µg/mL	Gravimetric
					+/-	133.1477	µg/mL	Unstressed
					+/-	133.2946	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	(Lot 100700-2)	2,502.7	µg/mL	+/-	14.5510	µg/mL	Gravimetric
					+/-	133.1893	µg/mL	Unstressed
					+/-	133.3362	µg/mL	Stressed
55	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC-IT)	2,500.0	µg/mL	+/-	14.5352	µg/mL	Gravimetric
					+/-	133.0445	µg/mL	Unstressed
					+/-	133.1912	µg/mL	Stressed

56	Bromobenzene CAS # 108-86-1.SEC Purity 99%	(Lot 2FUHG-EM)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
57	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot SC7LO-QA)	2,502.4 µg/mL	+/- 14.5490 +/- 133.1709 +/- 133.3177	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
58	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot SW8QG-AO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
59	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot P4XHJ-AO)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
60	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot OGN01)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
61	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot FGH02-CMLN)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
62	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot OGN01)	2,500.1 µg/mL	+/- 14.5359 +/- 133.0511 +/- 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
63	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99%	(Lot 1721700)	2,501.6 µg/mL	+/- 14.5447 +/- 133.1310 +/- 133.2778	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
64	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD-KA)	2,501.5 µg/mL	+/- 14.5439 +/- 133.1243 +/- 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
65	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot YWKDC-MK)	2,500.3 µg/mL	+/- 14.5367 +/- 133.0578 +/- 133.2045	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
66	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot OGN01)	2,500.6 µg/mL	+/- 14.5388 +/- 133.0777 +/- 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
67	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot 4NRGF-OT)	2,500.0 µg/mL	+/- 14.5352 +/- 133.0445 +/- 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
68	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 97%	(Lot LC00408V)	2,500.5 µg/mL	+/- 14.5383 +/- 133.0732 +/- 133.2199	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
69	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot OGO01)	2,501.0 µg/mL	+/- 14.5410 +/- 133.0977 +/- 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
70	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 2009400)	2,501.0 µg/mL	+/- 14.5412 +/- 133.0990 +/- 133.2458	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
71	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot 4KW3H-OO)	2,500.5 µg/mL	+/- 14.5381 +/- 133.0711 +/- 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

72	1,2,3-Trichlorobenzene		2,502.4	µg/mL	+/-	14.5490	µg/mL	Gravimetric
	CAS # 87-61-6.SEC	(Lot A0043055)			+/-	133.1709	µg/mL	Unstressed
	Purity 99%				+/-	133.3177	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)

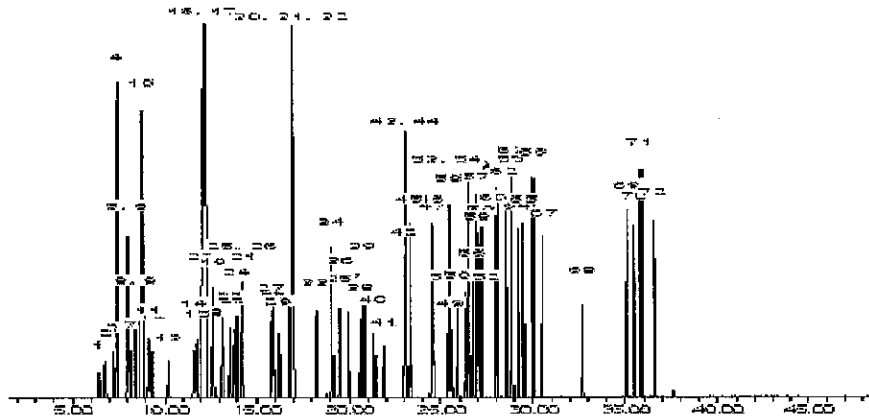
**Carrier Gas:**  
helium-constant pressure 30 psi

**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 Mage*

**Date Mixed:** 07-Jan-2015      **Balance:** 1127510105

*Tyler Brown*

Tyler Brown - QA Analyst

**Date Passed:** 14-Jan-2015

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

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**VOA8260SURRES\_00066**



# RESTEK 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.:** A0100424  
**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 :** January 31, 2019 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane CAS # 1868-53-7 Purity 99% (Lot 022012)	2,502.2 µg/mL	+/-	14.5480	µg/mL Gravimetric
			+/-	28.2159	µg/mL Unstressed
			+/-	32.4683	µg/mL Stressed
2	1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 99% (Lot 12K-027)	2,501.2 µg/mL	+/-	14.5422	µg/mL Gravimetric
			+/-	28.2046	µg/mL Unstressed
			+/-	32.4554	µg/mL Stressed
3	Toluene-d8 CAS # 2037-26-5 Purity 99% (Lot 13I-050)	2,500.8 µg/mL	+/-	14.5399	µg/mL Gravimetric
			+/-	28.2001	µg/mL Unstressed
			+/-	32.4502	µg/mL Stressed
4	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 01127COV)	2,501.4 µg/mL	+/-	14.5434	µg/mL Gravimetric
			+/-	28.2069	µg/mL Unstressed
			+/-	32.4580	µg/mL Stressed

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

Reagent

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**VOA8260SURRES\_00077**

# RESTEK® CERTIFIED REFERENCE MATERIAL

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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.:** A0101000  
**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 :** January 31, 2019 **Storage:** 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dibromofluoromethane	2,509.6 µg/mL	+/-	14.5910	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 022012)		+/-	28.2993	µg/mL	Unstressed
	Purity 99%		+/-	32.5644	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,508.2 µg/mL	+/-	14.5829	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot 12K-027)		+/-	28.2836	µg/mL	Unstressed
	Purity 99%		+/-	32.5462	µg/mL	Stressed
3	Toluene-d8	2,508.8 µg/mL	+/-	14.5864	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot 13I-050)		+/-	28.2903	µg/mL	Unstressed
	Purity 99%		+/-	32.5540	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,509.8 µg/mL	+/-	14.5922	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 01127COV)		+/-	28.3016	µg/mL	Unstressed
	Purity 99%		+/-	32.5670	µg/mL	Stressed

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

Reagent

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**VOA8260VARES\_00055**



# CERTIFIED REFERENCE MATERIAL

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

## 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. :** 569724 **Lot No.:** A0109190

**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 :** August 31, 2015 **Storage:** 0°C or colder

### 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%	5,023.0 µg/mL (Lot STBC8935V)	+/- 29.4778	µg/mL	Gravimetric
			+/- 267.3430	µg/mL	Unstressed
			+/- 267.6378	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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**VOAACRRES2ND\_00065**



# CERTIFIED REFERENCE MATERIAL

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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. :** 568720.sec **Lot No.:** A0111005

**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, 2015 **Storage:** 10°C or colder

**Handling:** This product is photosensitive.

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
I	Acrolein CAS # 107-02-8.SEC (Lot 3593700) Purity 97%	19,749.2 µg/mL	+/- 115.6359	µg/mL	Gravimetric
			+/- 633.2214	µg/mL	Unstressed
			+/- 736.0506	µg/mL	Stressed

**Solvent:** Water  
CAS # 7732-18-5  
Purity 99%

Reagent

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**VOARESEE1ST\_00025**





# CERTIFIED REFERENCE MATERIAL



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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. : 568363-FL Lot No.: A0109701

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 : September 30, 2016 Storage: 0°C or colder

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
			µg/mL	µg/mL	µg/mL	
1	3-Chlorobenzotrifluoride	5,000.0 µg/mL	---	+/- 29.3428	µg/mL	Gravimetric
	CAS # 98-15-7 (Lot 21324DO)		+/- 56.5231	µg/mL	Unstressed	
	Purity 99%		+/- 65.0021	µg/mL	Stressed	
2	4-Chlorobenzotrifluoride	5,003.0 µg/mL	+/- 29.3604	µg/mL	Gravimetric	
	CAS # 98-56-6 (Lot 08507BO)		+/- 56.5570	µg/mL	Unstressed	
	Purity 99%		+/- 65.0411	µg/mL	Stressed	
3	2-Chlorobenzotrifluoride	5,009.0 µg/mL	+/- 29.3956	µg/mL	Gravimetric	
	CAS # 88-16-4 (Lot I0316DQ)		+/- 56.6248	µg/mL	Unstressed	
	Purity 99%		+/- 65.1191	µg/mL	Stressed	
4	3-Chlorotoluene	5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric	
	CAS # 108-41-8 (Lot 13528LX)		+/- 56.6587	µg/mL	Unstressed	
	Purity 99%		+/- 65.1581	µg/mL	Stressed	
5	2,4-Dichlorobenzotrifluoride	5,013.0 µg/mL	+/- 29.4191	µg/mL	Gravimetric	
	CAS # 320-60-5 (Lot MKBL3552V)		+/- 56.6701	µg/mL	Unstressed	
	Purity 99%		+/- 65.1711	µg/mL	Stressed	
6	3,4-Dichlorobenzotrifluoride	5,018.0 µg/mL	+/- 29.4484	µg/mL	Gravimetric	
	CAS # 328-84-7 (Lot 11105EJV)		+/- 56.7266	µg/mL	Unstressed	
	Purity 99%		+/- 65.2361	µg/mL	Stressed	
7	2,5-Dichlorobenzotrifluoride	5,015.0 µg/mL	+/- 29.4308	µg/mL	Gravimetric	
	CAS # 320-50-3 (Lot 04415DSV)		+/- 56.6927	µg/mL	Unstressed	
	Purity 99%		+/- 65.1971	µg/mL	Stressed	

8	2,4-Dichlorotoluene CAS # 95-73-8 Purity 99%	(Lot 07715JS)	5,021.0 µg/mL	+/- 29.4660 +/- 56.7605 +/- 65.2751	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	2,5-Dichlorotoluene CAS # 19398-61-9 Purity 99%	(Lot 1381346V)	5,005.0 µg/mL	+/- 29.3721 +/- 56.5796 +/- 65.0671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2,6-Dichlorotoluene CAS # 118-69-4 Purity 99%	(Lot 16921JS)	5,014.0 µg/mL	+/- 29.4250 +/- 56.6814 +/- 65.1841	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	3,4-Dichlorotoluene CAS # 95-75-0 Purity 99%	(Lot 09419AS)	5,011.0 µg/mL	+/- 29.4074 +/- 56.6474 +/- 65.1451	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	2,3-Dichlorotoluene CAS # 32768-54-0 Purity 99%	(Lot 00317)	5,016.0 µg/mL	+/- 29.4367 +/- 56.7040 +/- 65.2101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	2,4,5-Trichlorotoluene CAS # 6639-30-1 Purity 99%	(Lot 2490300)	5,000.0 µg/mL	+/- 29.3428 +/- 56.5231 +/- 65.0021	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	2,3,6-Trichlorotoluene CAS # 2077-46-5 Purity 99%	(Lot NT050444)	5,005.0 µg/mL	+/- 29.3721 +/- 56.5796 +/- 65.0671	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

# 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.: 180-47984-1

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-3-0/1-0	180-47984-1	95	98	106	97
HD-MW-28-0/1-0	180-47984-2	102	100	106	93
HD-MW-32D-0/1-0	180-47984-3	105	106	107	90
HD-MW-32D-0/1-0 DL	180-47984-3 DL	101	101	105	90
HD-MW-32S-0/1-0	180-47984-4	106	104	103	91
HD-QC2-0/1-1	180-47984-5	106	105	104	91
HD-QC5-0/1-2	180-47984-6	94	99	106	97
	MB 180-155089/4	90	99	107	95
	MB 180-155230/5	100	100	107	92
	MB 180-155405/5	98	102	108	93
	LCS 180-155089/8	96	98	101	96
	LCS 180-155230/8	99	106	110	101
	LCS 180-155405/8	91	96	98	90
HD-MW-3-0/1-0 MS	180-47984-1 MS	97	99	103	92
HD-MW-3-0/1-0 MSD	180-47984-1 MSD	104	104	104	99

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

QC LIMITS  
70-128  
64-135  
71-118  
70-118

# Column to be used to flag recovery values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Matrix: Water Level: Low

Lab File ID: 60928008.D

Lab ID: LCS 180-155089/8

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.2	112	50-139	
Vinyl chloride	10.0	10.4	104	53-138	
Bromomethane	10.0	8.81	88	33-150	
Chloroethane	10.0	9.45	94	36-142	
1,1-Dichloroethene	10.0	7.60	76	65-136	
Acetone	20.0	16.9	85	22-150	
Carbon disulfide	10.0	8.01	80	54-132	
Methylene Chloride	10.0	8.09	81	63-129	
trans-1,2-Dichloroethene	10.0	8.09	81	73-126	
Methyl tert-butyl ether	10.0	8.15	81	64-123	
1,1-Dichloroethane	10.0	8.71	87	73-126	
cis-1,2-Dichloroethene	10.0	8.55	85	70-120	
Bromochloromethane	10.0	9.18	92	70-127	
2-Butanone (MEK)	20.0	21.9	109	39-138	
Chloroform	10.0	8.72	87	72-127	
1,1,1-Trichloroethane	10.0	8.27	83	63-133	
Carbon tetrachloride	10.0	8.45	85	55-150	
Benzene	10.0	8.93	89	80-120	
1,2-Dichloroethane	10.0	9.25	93	68-132	
Trichloroethene	10.0	10.1	101	73-120	
1,2-Dichloropropane	10.0	10.2	102	76-124	
Bromodichloromethane	10.0	8.87	89	66-130	
cis-1,3-Dichloropropene	10.0	9.69	97	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	21.5	108	45-145	
Toluene	10.0	9.38	94	80-123	
trans-1,3-Dichloropropene	10.0	9.31	93	65-125	
1,1,2-Trichloroethane	10.0	9.86	99	77-127	
Tetrachloroethene	10.0	10.3	103	70-135	
2-Hexanone	20.0	23.5	117	25-132	
Dibromochloromethane	10.0	10.2	102	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	74-123	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.0	100	63-140	
Ethylbenzene	10.0	10.1	101	72-126	
Xylenes, Total	20.0	20.4	102	76-128	
Styrene	10.0	10.6	106	71-127	
Bromoform	10.0	11.1	111	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.95	99	62-125	
Acrylonitrile	100	104	104	30-140	
1,4-Dioxane	200	187 J	94	10-160	

# 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.: 180-47984-1

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

Matrix: Water Level: Low

Lab File ID: 60929008.D

Lab ID: LCS 180-155230/8

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.8	118	50-139	
Vinyl chloride	10.0	11.0	110	53-138	
Bromomethane	10.0	8.98	90	33-150	
Chloroethane	10.0	10.2	102	36-142	
1,1-Dichloroethene	10.0	8.12	81	65-136	
Acetone	20.0	22.2	111	22-150	
Carbon disulfide	10.0	7.88	79	54-132	
Methylene Chloride	10.0	8.48	85	63-129	
trans-1,2-Dichloroethene	10.0	8.49	85	73-126	
Methyl tert-butyl ether	10.0	8.25	82	64-123	
1,1-Dichloroethane	10.0	9.22	92	73-126	
cis-1,2-Dichloroethene	10.0	8.19	82	70-120	
Bromochloromethane	10.0	9.60	96	70-127	
2-Butanone (MEK)	20.0	22.3	112	39-138	
Chloroform	10.0	8.88	89	72-127	
1,1,1-Trichloroethane	10.0	8.29	83	63-133	
Carbon tetrachloride	10.0	9.19	92	55-150	
Benzene	10.0	9.41	94	80-120	
1,2-Dichloroethane	10.0	9.62	96	68-132	
Trichloroethene	10.0	10.7	107	73-120	
1,2-Dichloropropane	10.0	10.7	107	76-124	
Bromodichloromethane	10.0	9.04	90	66-130	
cis-1,3-Dichloropropene	10.0	9.54	95	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	22.4	112	45-145	
Toluene	10.0	10.5	105	80-123	
trans-1,3-Dichloropropene	10.0	9.51	95	65-125	
1,1,2-Trichloroethane	10.0	10.1	101	77-127	
Tetrachloroethene	10.0	11.0	110	70-135	
2-Hexanone	20.0	25.6	128	25-132	
Dibromochloromethane	10.0	10.5	105	60-140	
1,2-Dibromoethane (EDB)	10.0	10.6	106	74-123	
Chlorobenzene	10.0	11.0	110	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.9	109	63-140	
Ethylbenzene	10.0	11.1	111	72-126	
Xylenes, Total	20.0	22.1	111	76-128	
Styrene	10.0	11.8	118	71-127	
Bromoform	10.0	11.6	116	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.8	108	62-125	
Acrylonitrile	100	108	108	30-140	
1,4-Dioxane	200	219	109	10-160	

# 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.: 180-47984-1

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

Matrix: Water Level: Low

Lab File ID: 60930008.D

Lab ID: LCS 180-155405/8

Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	11.7	117	50-139	
Vinyl chloride	10.0	10.1	101	53-138	
Bromomethane	10.0	9.18	92	33-150	
Chloroethane	10.0	9.96	100	36-142	
1,1-Dichloroethene	10.0	7.85	79	65-136	
Acetone	20.0	19.4	97	22-150	
Carbon disulfide	10.0	7.27	73	54-132	
Methylene Chloride	10.0	8.16	82	63-129	
trans-1,2-Dichloroethene	10.0	7.84	78	73-126	
Methyl tert-butyl ether	10.0	8.02	80	64-123	
1,1-Dichloroethane	10.0	8.95	89	73-126	
cis-1,2-Dichloroethene	10.0	8.19	82	70-120	
Bromochloromethane	10.0	9.14	91	70-127	
2-Butanone (MEK)	20.0	22.2	111	39-138	
Chloroform	10.0	8.68	87	72-127	
1,1,1-Trichloroethane	10.0	7.88	79	63-133	
Carbon tetrachloride	10.0	8.29	83	55-150	
Benzene	10.0	9.14	91	80-120	
1,2-Dichloroethane	10.0	9.24	92	68-132	
Trichloroethene	10.0	9.79	98	73-120	
1,2-Dichloropropane	10.0	10.5	105	76-124	
Bromodichloromethane	10.0	8.68	87	66-130	
cis-1,3-Dichloropropene	10.0	9.16	92	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.4	102	45-145	
Toluene	10.0	9.43	94	80-123	
trans-1,3-Dichloropropene	10.0	9.19	92	65-125	
1,1,2-Trichloroethane	10.0	10.4	104	77-127	
Tetrachloroethene	10.0	9.98	100	70-135	
2-Hexanone	20.0	21.5	107	25-132	
Dibromochloromethane	10.0	9.76	98	60-140	
1,2-Dibromoethane (EDB)	10.0	10.2	102	74-123	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	63-140	
Ethylbenzene	10.0	10.2	102	72-126	
Xylenes, Total	20.0	20.3	102	76-128	
Styrene	10.0	11.2	112	71-127	
Bromoform	10.0	10.8	108	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.1	101	62-125	
Acrylonitrile	100	108	108	30-140	
1,4-Dioxane	200	207	103	10-160	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

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

Matrix: Water Level: Low

Lab File ID: 60928009.D

Lab ID: 180-47984-1 MS

Client ID: HD-MW-3-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	ND	12.4	124	50-139	
Vinyl chloride	10.0	ND	10.8	108	53-138	
Bromomethane	10.0	ND	8.90	89	33-150	
Chloroethane	10.0	ND	9.88	99	36-142	
1,1-Dichloroethene	10.0	ND	8.53	85	65-136	
Acetone	20.0	ND	20.9	105	22-150	
Carbon disulfide	10.0	ND	8.21	82	54-132	
Methylene Chloride	10.0	ND	8.45	84	63-129	
trans-1,2-Dichloroethene	10.0	ND	8.66	87	73-126	
Methyl tert-butyl ether	10.0	0.19 J	9.00	88	64-123	
1,1-Dichloroethane	10.0	ND	9.20	92	73-126	
cis-1,2-Dichloroethene	10.0	0.63 J	9.84	92	70-120	
Bromochloromethane	10.0	ND	9.38	94	70-127	
2-Butanone (MEK)	20.0	ND	24.6	123	39-138	
Chloroform	10.0	2.2	11.4	92	72-127	
1,1,1-Trichloroethane	10.0	ND	8.71	87	63-133	
Carbon tetrachloride	10.0	ND	9.22	92	55-150	
Benzene	10.0	ND	9.31	93	80-120	
1,2-Dichloroethane	10.0	ND	9.60	96	68-132	
Trichloroethene	10.0	31	39.7	91	73-120	
1,2-Dichloropropane	10.0	ND	10.8	108	76-124	
Bromodichloromethane	10.0	ND	9.52	95	66-130	
cis-1,3-Dichloropropene	10.0	ND	10.4	104	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	ND	23.9	120	45-145	
Toluene	10.0	ND	9.90	99	80-123	
trans-1,3-Dichloropropene	10.0	ND	10.0	100	65-125	
1,1,2-Trichloroethane	10.0	ND	10.1	101	77-127	
Tetrachloroethene	10.0	0.39 J	11.0	106	70-135	
2-Hexanone	20.0	ND	25.6	128	25-132	
Dibromochloromethane	10.0	ND	10.7	107	60-140	
1,2-Dibromoethane (EDB)	10.0	ND	11.1	111	74-123	
Chlorobenzene	10.0	ND	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	ND	10.9	109	63-140	
Ethylbenzene	10.0	ND	10.6	106	72-126	
Xylenes, Total	20.0	ND	21.4	107	76-128	
Styrene	10.0	ND	11.2	112	71-127	
Bromoform	10.0	ND	10.6	106	46-150	
1,1,2,2-Tetrachloroethane	10.0	ND	10.1	101	62-125	
Acrylonitrile	100	ND	111	111	30-140	
1,4-Dioxane	200	ND	190 J	95	10-160	

# 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.: 180-47984-1

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

Matrix: Water Level: Low

Lab File ID: 60928010.D

Lab ID: 180-47984-1 MSD

Client ID: HD-MW-3-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Chloromethane	10.0	12.6	126	2	35	50-139	
Vinyl chloride	10.0	11.0	110	2	35	53-138	
Bromomethane	10.0	8.77	88	1	35	33-150	
Chloroethane	10.0	10.8	108	9	35	36-142	
1,1-Dichloroethene	10.0	8.18	82	4	35	65-136	
Acetone	20.0	22.1	111	5	35	22-150	
Carbon disulfide	10.0	8.13	81	1	35	54-132	
Methylene Chloride	10.0	9.10	91	7	35	63-129	
trans-1,2-Dichloroethene	10.0	9.04	90	4	35	73-126	
Methyl tert-butyl ether	10.0	9.59	94	6	35	64-123	
1,1-Dichloroethane	10.0	9.74	97	6	35	73-126	
cis-1,2-Dichloroethene	10.0	9.76	91	1	35	70-120	
Bromochloromethane	10.0	10.1	101	7	35	70-127	
2-Butanone (MEK)	20.0	27.3	136	10	35	39-138	
Chloroform	10.0	11.6	94	1	35	72-127	
1,1,1-Trichloroethane	10.0	8.92	89	2	35	63-133	
Carbon tetrachloride	10.0	9.00	90	2	35	55-150	
Benzene	10.0	9.69	97	4	32	80-120	
1,2-Dichloroethane	10.0	9.95	99	4	32	68-132	
Trichloroethene	10.0	37.9	73	5	35	73-120	
1,2-Dichloropropane	10.0	11.3	113	4	34	76-124	
Bromodichloromethane	10.0	9.45	95	1	35	66-130	
cis-1,3-Dichloropropene	10.0	11.1	111	7	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	23.7	118	1	35	45-145	
Toluene	10.0	9.59	96	3	35	80-123	
trans-1,3-Dichloropropene	10.0	9.90	99	1	35	65-125	
1,1,2-Trichloroethane	10.0	10.1	101	1	35	77-127	
Tetrachloroethene	10.0	10.6	102	4	35	70-135	
2-Hexanone	20.0	24.9	125	3	35	25-132	
Dibromochloromethane	10.0	10.6	106	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.7	107	4	35	74-123	
Chlorobenzene	10.0	10.5	105	0	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	6	34	63-140	
Ethylbenzene	10.0	10.6	106	0	33	72-126	
Xylenes, Total	20.0	21.1	106	1	32	76-128	
Styrene	10.0	11.0	110	2	34	71-127	
Bromoform	10.0	10.8	108	2	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	1	35	62-125	
Acrylonitrile	100	118	118	6	35	30-140	
1,4-Dioxane	200	230	115	19	35	10-160	

# Column to be used to flag recovery and RPD values

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60928004.D Lab Sample ID: MB 180-155089/4  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP6 Date Analyzed: 09/28/2015 12:18  
 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
HD-QC5-0/1-2	180-47984-6	60928005.D	09/28/2015 13:00
HD-MW-3-0/1-0	180-47984-1	60928006.D	09/28/2015 13:33
	LCS 180-155089/8	60928008.D	09/28/2015 14:21
HD-MW-3-0/1-0 MS	180-47984-1 MS	60928009.D	09/28/2015 14:46
HD-MW-3-0/1-0 MSD	180-47984-1 MSD	60928010.D	09/28/2015 15:10

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60929005.D Lab Sample ID: MB 180-155230/5  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP6 Date Analyzed: 09/29/2015 12:50  
 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 180-155230/8	60929008.D	09/29/2015 14:18
HD-MW-32D-0/1-0	180-47984-3	60929022.D	09/29/2015 19:57
HD-MW-32S-0/1-0	180-47984-4	60929024.D	09/29/2015 20:47
HD-QC2-0/1-1	180-47984-5	60929025.D	09/29/2015 21:11

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60930005.D Lab Sample ID: MB 180-155405/5  
 Matrix: Water Heated Purge: (Y/N) N  
 Instrument ID: CHHP6 Date Analyzed: 09/30/2015 12:44  
 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 180-155405/8	60930008.D	09/30/2015 14:13
HD-MW-28-0/1-0	180-47984-2	60930012.D	09/30/2015 15:50
HD-MW-32D-0/1-0 DL	180-47984-3 DL	60930013.D	09/30/2015 16:14

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60731001.D BFB Injection Date: 07/31/2015  
 Instrument ID: CHHP6 BFB Injection Time: 12:10  
 Analysis Batch No.: 149469

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.4
75	30.0 - 60.0 % of mass 95	56.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.8
173	Less than 2.0 % of mass 174	0.2 (0.3)1
174	50.0 - 120.00 % of mass 95	62.3
175	5.0 - 9.0 % of mass 174	4.7 (7.5)1
176	95.0 - 101.0 % of mass 174	62.6 (100.6)1
177	5.0 - 9.0 % of mass 176	4.2 (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
	IC 180-149469/4	60731004.D	07/31/2015	14:00
	ICIS 180-149469/5	60731005.D	07/31/2015	14:24
	IC 180-149469/6	60731006.D	07/31/2015	14:49
	IC 180-149469/7	60731007.D	07/31/2015	15:13
	IC 180-149469/8	60731008.D	07/31/2015	15:37
	IC 180-149469/9	60731009.D	07/31/2015	16:01
	IC 180-149469/10	60731010.D	07/31/2015	16:25
	IC 180-149469/14	60731014.D	07/31/2015	18:02

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60928001.D BFB Injection Date: 09/28/2015  
 Instrument ID: CHHP6 BFB Injection Time: 10:22  
 Analysis Batch No.: 155089

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	25.0
75	30.0 - 60.0 % of mass 95	58.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.8
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	72.0
175	5.0 - 9.0 % of mass 174	6.5 (9.0)1
176	95.0 - 101.0 % of mass 174	68.9 (95.7)1
177	5.0 - 9.0 % of mass 176	4.5 (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 180-155089/2	60928002.D	09/28/2015	11:03
	MB 180-155089/4	60928004.D	09/28/2015	12:18
HD-QC5-0/1-2	180-47984-6	60928005.D	09/28/2015	13:00
HD-MW-3-0/1-0	180-47984-1	60928006.D	09/28/2015	13:33
	LCS 180-155089/8	60928008.D	09/28/2015	14:21
HD-MW-3-0/1-0 MS	180-47984-1 MS	60928009.D	09/28/2015	14:46
HD-MW-3-0/1-0 MSD	180-47984-1 MSD	60928010.D	09/28/2015	15:10

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60929004.D BFB Injection Date: 09/29/2015  
 Instrument ID: CHHP6 BFB Injection Time: 10:59  
 Analysis Batch No.: 155230

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	24.2
75	30.0 - 60.0 % of mass 95	57.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	8.6
173	Less than 2.0 % of mass 174	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	75.9
175	5.0 - 9.0 % of mass 174	6.8 (9.0)1
176	95.0 - 101.0 % of mass 174	74.2 (97.8)1
177	5.0 - 9.0 % of mass 176	5.5 (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
	CCVIS 180-155230/2	60929002.D	09/29/2015	11:39
	MB 180-155230/5	60929005.D	09/29/2015	12:50
	LCS 180-155230/8	60929008.D	09/29/2015	14:18
HD-MW-32D-0/1-0	180-47984-3	60929022.D	09/29/2015	19:57
HD-MW-32S-0/1-0	180-47984-4	60929024.D	09/29/2015	20:47
HD-QC2-0/1-1	180-47984-5	60929025.D	09/29/2015	21:11

FORM V  
GC/MS VOA INSTRUMENT PERFORMANCE CHECK  
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: 60930001.D BFB Injection Date: 09/30/2015  
 Instrument ID: CHHP6 BFB Injection Time: 10:50  
 Analysis Batch No.: 155405

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	25.4
75	30.0 - 60.0 % of mass 95	55.1
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	0.0 (0.0)1
174	50.0 - 120.00 % of mass 95	77.0
175	5.0 - 9.0 % of mass 174	6.1 (7.9)1
176	95.0 - 101.0 % of mass 174	75.0 (97.4)1
177	5.0 - 9.0 % of mass 176	5.0 (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 180-155405/2	60930002.D	09/30/2015	11:30
	CCV 180-155405/3	60930003.D	09/30/2015	11:54
	MB 180-155405/5	60930005.D	09/30/2015	12:44
	LCS 180-155405/8	60930008.D	09/30/2015	14:13
HD-MW-28-0/1-0	180-47984-2	60930012.D	09/30/2015	15:50
HD-MW-32D-0/1-0 DL	180-47984-3 DL	60930013.D	09/30/2015	16:14



FORM VIII  
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-155089/2 Date Analyzed: 09/28/2015 11:03  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60928002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	194313	4.24	501521	7.28	120842	10.40	
UPPER LIMIT	388626	4.74	1003042	7.78	241684	10.90	
LOWER LIMIT	97157	3.74	250761	6.78	60421	9.90	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-155089/4		203220	4.23	570858	7.29	127707	10.40
180-47984-6	HD-QC5-0/1-2	160314	4.23	555419	7.29	125375	10.40
180-47984-1	HD-MW-3-0/1-0	171894	4.23	555317	7.29	129119	10.40
LCS 180-155089/8		218073	4.24	503917	7.28	118468	10.40
180-47984-1 MS	HD-MW-3-0/1-0 MS	215286	4.24	487203	7.29	114010	10.40
180-47984-1 MSD	HD-MW-3-0/1-0 MSD	226742	4.25	461261	7.29	115385	10.39

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = 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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-155089/2 Date Analyzed: 09/28/2015 11:03  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60928002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		193962	12.75				
UPPER LIMIT		387924	13.25				
LOWER LIMIT		96981	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-155089/4		213043	12.75				
180-47984-6	HD-QC5-0/1-2	200922	12.75				
180-47984-1	HD-MW-3-0/1-0	210390	12.75				
LCS 180-155089/8		190158	12.75				
180-47984-1 MS	HD-MW-3-0/1-0 MS	188515	12.75				
180-47984-1 MSD	HD-MW-3-0/1-0 MSD	194571	12.75				

DCB = 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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-155230/2 Date Analyzed: 09/29/2015 11:39  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60929002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	151334	4.24	479327	7.28	109995	10.40	
UPPER LIMIT	302668	4.74	958654	7.78	219990	10.90	
LOWER LIMIT	75667	3.74	239664	6.78	54998	9.90	
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-155230/5	179982	4.23	517037	7.29	115558	10.40	
LCS 180-155230/8	186647	4.26	465928	7.29	102227	10.39	
180-47984-3	HD-MW-32D-0/1-0	167894	4.24	485220	7.29	110269	10.40
180-47984-4	HD-MW-32S-0/1-0	167107	4.24	460683	7.29	103824	10.40
180-47984-5	HD-QC2-0/1-1	168756	4.24	462923	7.29	106910	10.40

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = 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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-155230/2 Date Analyzed: 09/29/2015 11:39  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60929002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	188289	12.75				
UPPER LIMIT	376578	13.25				
LOWER LIMIT	94145	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID					
MB 180-155230/5		190638	12.75			
LCS 180-155230/8		183792	12.75			
180-47984-3	HD-MW-32D-0/1-0	178890	12.75			
180-47984-4	HD-MW-32S-0/1-0	165262	12.75			
180-47984-5	HD-QC2-0/1-1	175040	12.75			

DCB = 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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-155405/2 Date Analyzed: 09/30/2015 11:30  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60930002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	TBA		FB		CBZ		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	155217	4.23	463560	7.29	105595	10.40	
UPPER LIMIT	310434	4.73	927120	7.79	211190	10.90	
LOWER LIMIT	77609	3.73	231780	6.79	52798	9.90	
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-155405/3		179396	4.23	449111	7.29	98896	10.40
MB 180-155405/5		173038	4.24	473797	7.29	102015	10.40
LCS 180-155405/8		177519	4.26	454904	7.29	104167	10.40
180-47984-2	HD-MW-28-0/1-0	183792	4.25	488692	7.29	109782	10.40
180-47984-3 DL	HD-MW-32D-0/1-0 DL	173793	4.24	484149	7.29	108683	10.40

TBA = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBZ = 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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 180-155405/2 Date Analyzed: 09/30/2015 11:30  
 Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm)  
 Lab File ID (Standard): 60930002.D Heated Purge: (Y/N) N  
 Calibration ID: 25315

	DCB					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	187843	12.75				
UPPER LIMIT	375686	13.25				
LOWER LIMIT	93922	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID					
CCV 180-155405/3		155477	12.75			
MB 180-155405/5		170310	12.75			
LCS 180-155405/8		184271	12.75			
180-47984-2	HD-MW-28-0/1-0	183331	12.75			
180-47984-3 DL	HD-MW-32D-0/1-0 DL	179835	12.75			

DCB = 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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-3-0/1-0 Lab Sample ID: 180-47984-1  
 Matrix: Water Lab File ID: 60928006.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 09:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 13:33  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	0.19	J	1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.63	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	2.2		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	31		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.39	J	1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-3-0/1-0 Lab Sample ID: 180-47984-1  
 Matrix: Water Lab File ID: 60928006.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 09:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 13:33  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D  
 Lims ID: 180-47984-A-1 Lab Sample ID: 180-47984-1  
 Client ID: HD-MW-3-0/1-0  
 Sample Type: Client  
 Inject. Date: 28-Sep-2015 13:33:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47984-A-1  
 Misc. Info.: 180-0008724-006  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 13:54:14 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 28-Sep-2015 13:54:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.227	4.241	-0.014	88	171894	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.283	0.004	97	555317	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.398	-0.003	92	129119	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.750	12.746	0.004	97	210390	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.557	6.547	0.010	93	121179	47.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.930	0.004	70	202098	49.0	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	94	539415	53.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.582	11.584	-0.002	83	219065	48.4	
11 Dichlorodifluoromethane	85		1.613				ND	
12 Chloromethane	50	1.769	1.765	0.004	31	3230	0.9746	
13 Vinyl chloride	62		1.905				ND	
14 Butadiene	39		1.942				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
17 Dichlorofluoromethane	67		2.654				ND	
18 Trichlorofluoromethane	101		2.684				ND	
19 Ethanol	45		2.915				ND	
20 Ethyl ether	59		3.037				ND	
21 Acrolein	56		3.213				ND	
22 1,1-Dichloroethene	96		3.341				ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.402				ND	
24 Acetone	43		3.426				ND	
25 Iodomethane	142		3.530				ND	
26 Carbon disulfide	76		3.633				ND	
27 Isopropyl alcohol	45		3.670				ND	
28 Acetonitrile	40		3.834				ND	
29 3-Chloro-1-propene	76		3.913				ND	
30 Methyl acetate	43		3.919				ND	
31 Methylene Chloride	84		4.126				ND	
32 2-Methyl-2-propanol	59		4.387				ND	
33 Acrylonitrile	53		4.503				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73	4.567	4.564	0.003	79	9111	0.9426	M
36 Hexane	57		4.984				ND	
37 1,1-Dichloroethane	63		5.190				ND	
38 Vinyl acetate	43		5.239				ND	
40 Isopropyl ether	45		5.294				ND	
39 2-Chloro-1,3-butadiene	53		5.294				ND	
41 Tert-butyl ethyl ether	59		5.768				ND	
43 cis-1,2-Dichloroethene	96	5.936	5.933	0.003	85	11040	3.15	
42 2,2-Dichloropropane	77		5.939				ND	
44 2-Butanone (MEK)	43		5.951				ND	
45 Propionitrile	54		6.012				ND	
46 Ethyl acetate	43		6.024				ND	
47 Methacrylonitrile	41		6.194				ND	
48 Chlorobromomethane	128		6.225				ND	
49 Tetrahydrofuran	42		6.243				ND	
50 Chloroform	83	6.374	6.371	0.003	93	62518	10.9	
51 1,1,1-Trichloroethane	97		6.535				ND	
52 Cyclohexane	56		6.620				ND	
53 Carbon tetrachloride	117		6.717				ND	
54 1,1-Dichloropropene	75		6.730				ND	
55 Isobutyl alcohol	41		6.900				ND	
56 Benzene	78		6.942				ND	
57 1,2-Dichloroethane	62		7.015				ND	
148 Isooctane	57		7.101				ND	
58 Tert-amyl methyl ether	73		7.119				ND	
59 n-Heptane	43		7.307				ND	
60 n-Butanol	56		7.612				ND	
61 Trichloroethene	130	7.682	7.679	0.003	95	413653	153.3	
62 Ethyl acrylate	55		7.794				ND	
63 Methylcyclohexane	83		7.922				ND	
64 1,2-Dichloropropane	63		7.952				ND	
66 Methyl methacrylate	69		8.025				ND	
67 Dibromomethane	93		8.038				ND	
65 1,4-Dioxane	88		8.038				ND	
68 Dichlorobromomethane	83		8.232				ND	
69 2-Nitropropane	41		8.445				ND	
70 2-Chloroethyl vinyl ether	63		8.530				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
75 Ethyl methacrylate	69		9.315				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.525	9.528	-0.003	90	4487	1.97	
78 1,3-Dichloropropane	76		9.607				ND	
79 2-Hexanone	43	9.751	9.656	0.094	1	229	0.1314	
80 n-Butyl acetate	43		9.783				ND	
81 Chlorodibromomethane	129		9.820				ND	
82 Ethylene Dibromide	107		9.936				ND	
83 3-Chlorobenzotrifluoride	180		10.392				ND	
84 Chlorobenzene	112		10.428				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.659				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.244				ND	
129 Cyclohexanol	57		11.246				ND	
92 2-Chlorobenzotrifluoride	180		11.304				ND	
93 Isopropylbenzene	105		11.408				ND	
94 Cyclohexanone	55		11.493				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
95 Bromobenzene	156		11.724				ND	
97 trans-1,4-Dichloro-2-buten	53		11.748				ND	
98 1,2,3-Trichloropropane	110		11.773				ND	
99 N-Propylbenzene	120		11.828				ND	
100 2-Chlorotoluene	126		11.913				ND	
101 3-Chlorotoluene	126		11.980				ND	
102 1,3,5-Trimethylbenzene	105		12.010				ND	
103 4-Chlorotoluene	126		12.040				ND	
104 tert-Butylbenzene	119		12.326				ND	
105 Pentachloroethane	167		12.357				ND	
106 1,2,4-Trimethylbenzene	105		12.381				ND	
107 1,2-dichloro-4-(trifluorom	214		12.418				ND	
108 sec-Butylbenzene	105		12.551				ND	
109 1,3-Dichlorobenzene	146		12.667				ND	
110 4-Isopropyltoluene	119		12.704				ND	
111 1,4-Dichlorobenzene	146		12.770				ND	
113 2,4-Dichloro-1-(triflourom	214		12.789				ND	
112 1,2,3-Trimethylbenzene	105		12.795				ND	
114 2,5-Dichlorobenzotrifluori	214		12.831				ND	
115 Benzyl chloride	91		12.880				ND	
116 n-Butylbenzene	91		13.111				ND	
117 1,2-Dichlorobenzene	146		13.123				ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914				ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060				ND	
120 1,3,5-Trichlorobenzene	180		14.109				ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.474				ND	
122 1,2,4-Trichlorobenzene	180		14.741				ND	
123 Hexachlorobutadiene	225		14.894				ND	
124 Naphthalene	128	15.001	15.009	-0.008	96	8598	0.8241	
125 1,2,3-Trichlorobenzene	180		15.228				ND	
126 2,4,5-Trichlorotoluene	159		16.007				ND	
127 2,3,6-Trichlorotoluene	159		16.110				ND	
128 2-Methylnaphthalene	142	16.150	16.153	-0.003	92	2158	NC	
145 2,3-Dichlorotoluene	1		0.000				ND	
144 2,4-Dichlorotoluene	1		0.000				ND	
151 Tert-amyl methyl ether (TI	1		0.000				ND	
153 1,2 Epoxybutane TIC	1		0.000				ND	
146 3,4-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	
147 2,6-Dichlorotoluene	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
149 Isopropyl ether TIC	1		0.000					ND
143 2,5-Dichlorotoluene	1		0.000					ND
150 Tert-butyl ethyl ether (TI	1		0.000					ND
S 131 Xylenes, Total	106		1.000					ND
S 130 1,2-Dichloroethene, Total	96				0		3.15	
S 132 1,3-Dichloropropene, Total	1		0.000					ND
T 135 Mesityl oxide TIC	83		0.000					ND
T 134 Methyl n-amyl ketone TIC	43		0.000					ND
T 133 Tetrahydrofuran TIC	42		0.000					ND

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D

Injection Date: 28-Sep-2015 13:33:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-A-1

Lab Sample ID: 180-47984-1

Worklist Smp#: 6

Client ID: HD-MW-3-0/1-0

Purge Vol: 5.000 mL

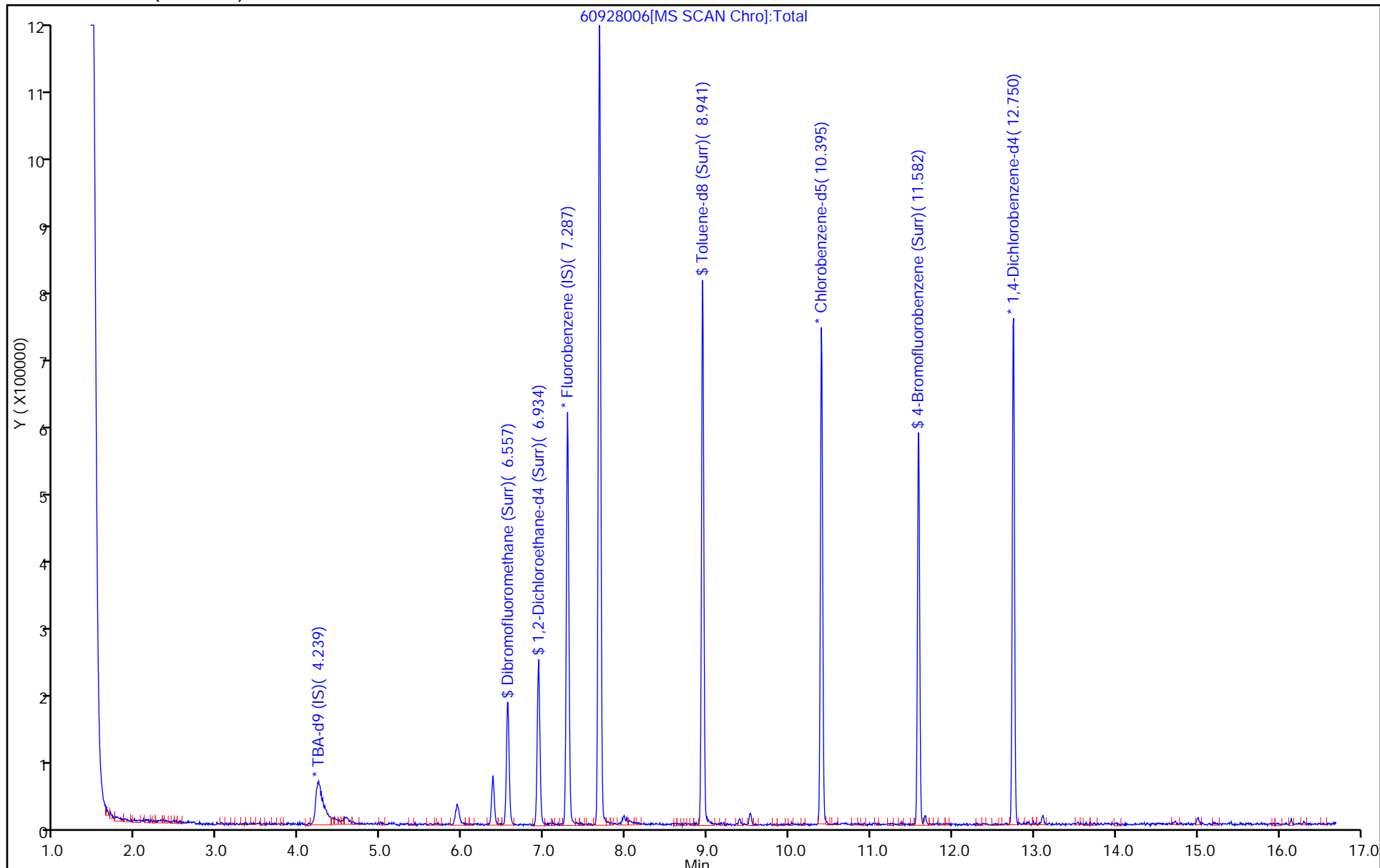
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D

Injection Date: 28-Sep-2015 13:33:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-1

Lab Sample ID: 180-47984-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

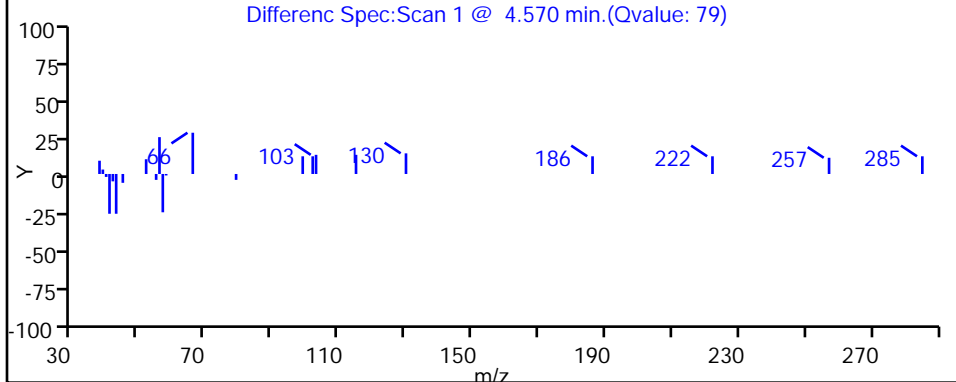
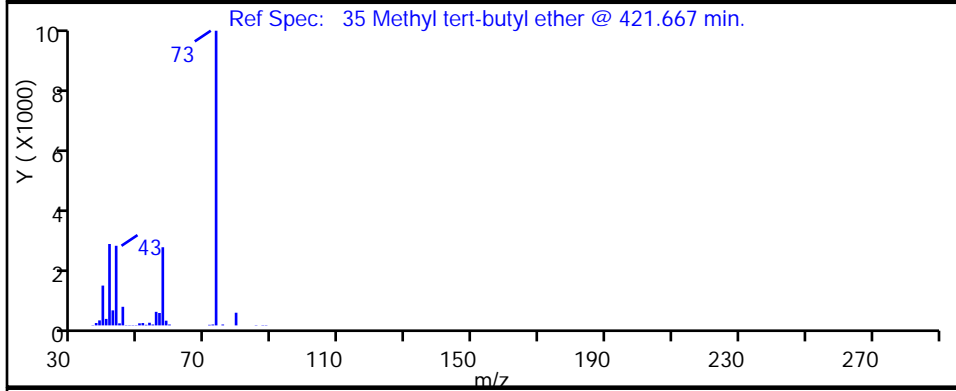
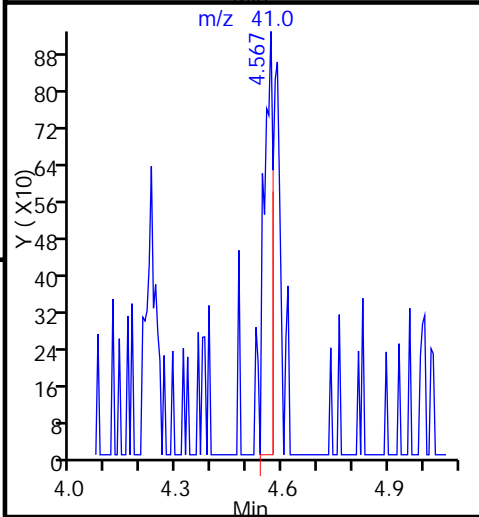
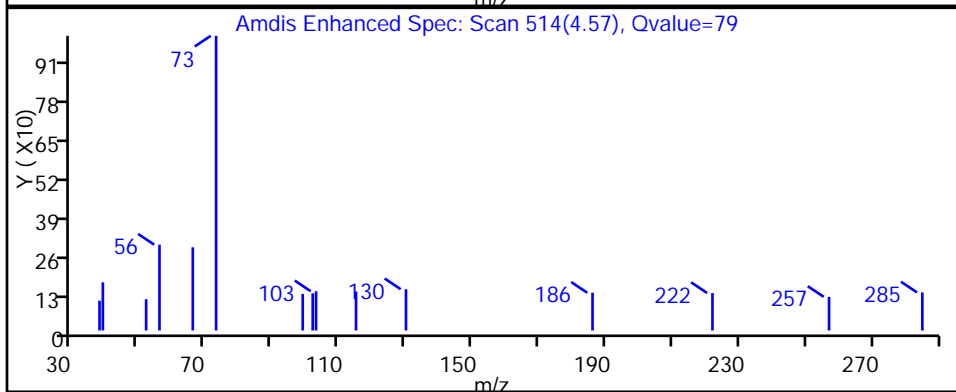
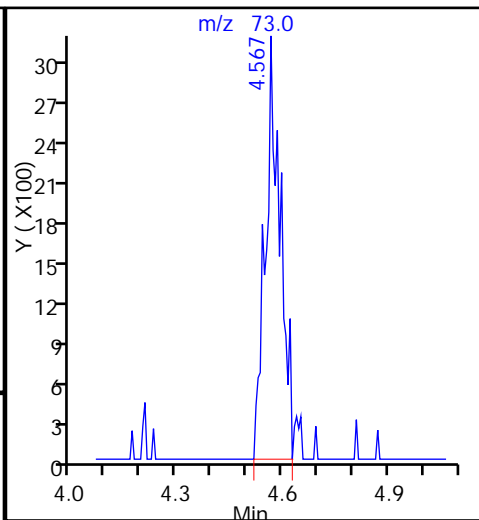
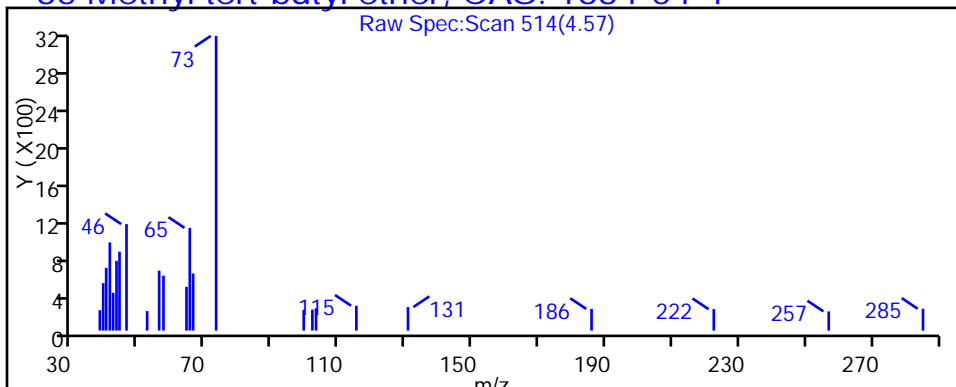
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

35 Methyl tert-butyl ether, CAS: 1634-04-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D

Injection Date: 28-Sep-2015 13:33:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-1

Lab Sample ID: 180-47984-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

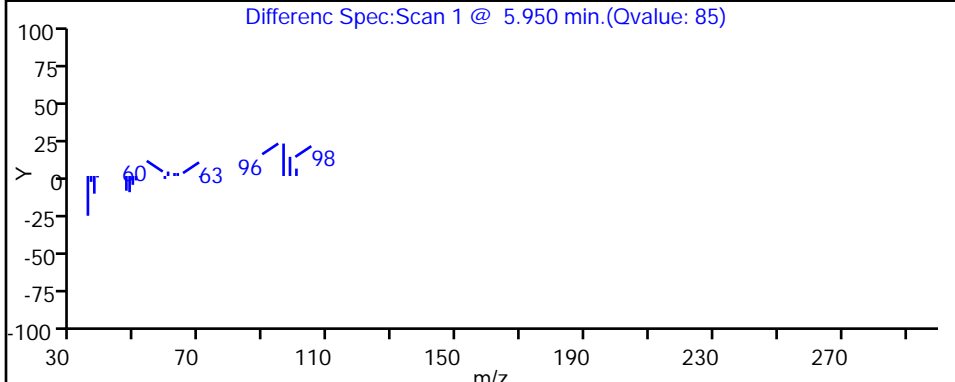
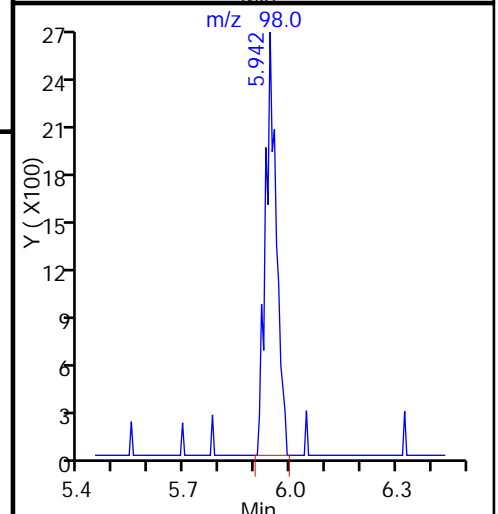
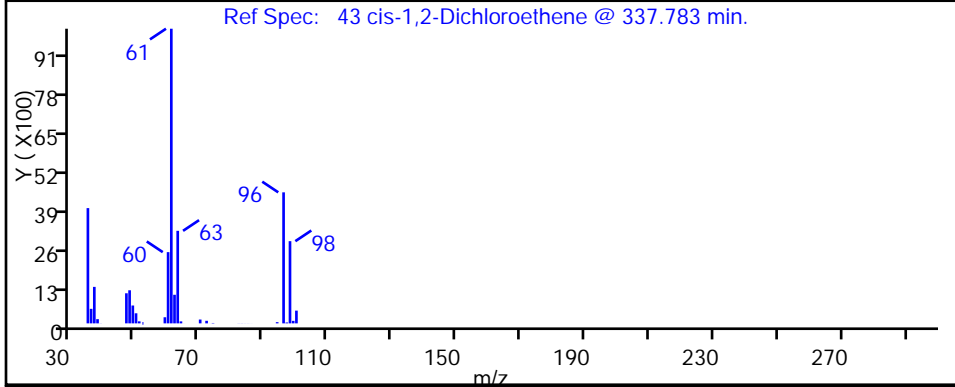
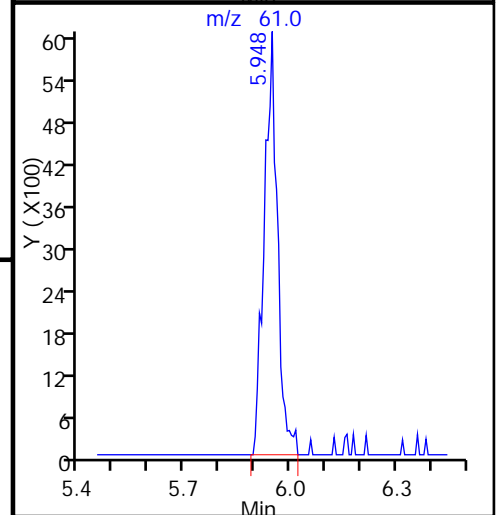
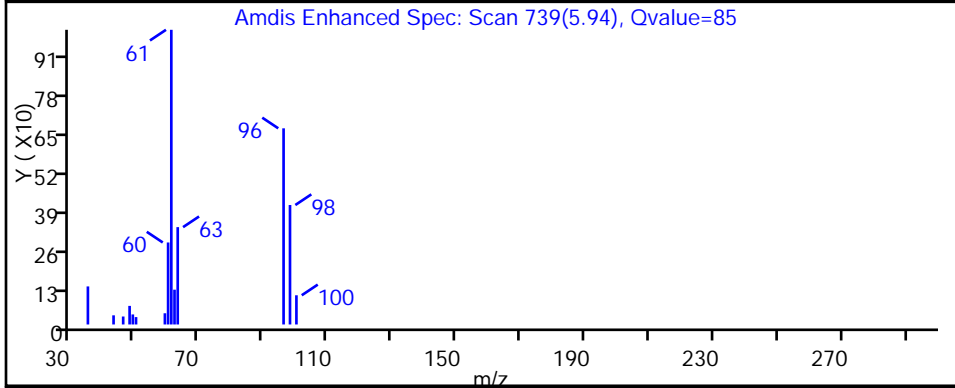
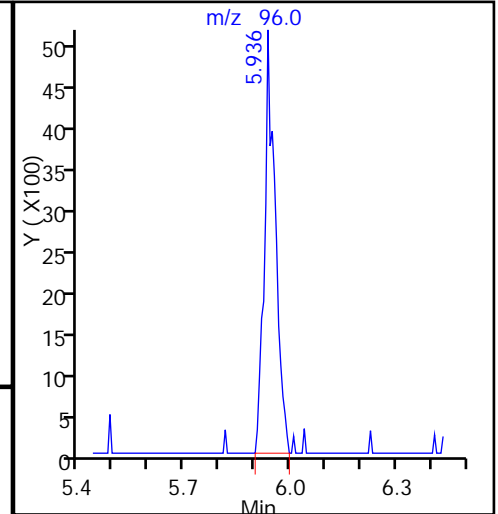
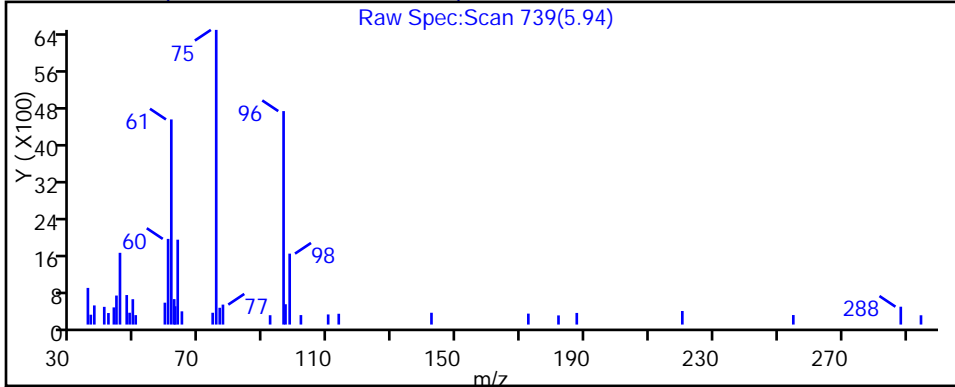
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D

Injection Date: 28-Sep-2015 13:33:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-1

Lab Sample ID: 180-47984-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 6 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

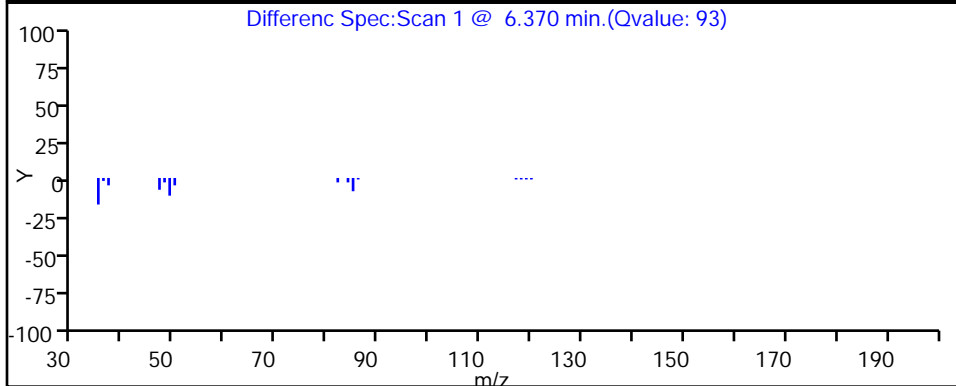
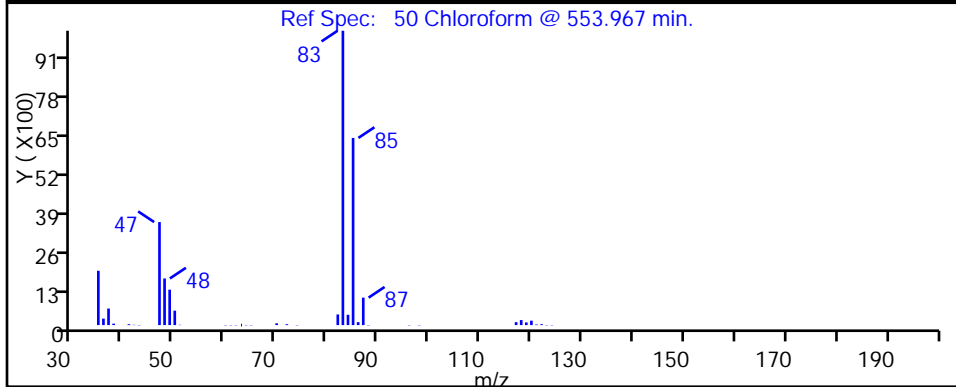
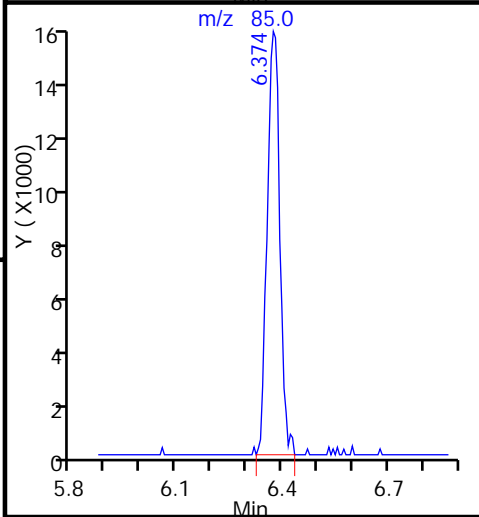
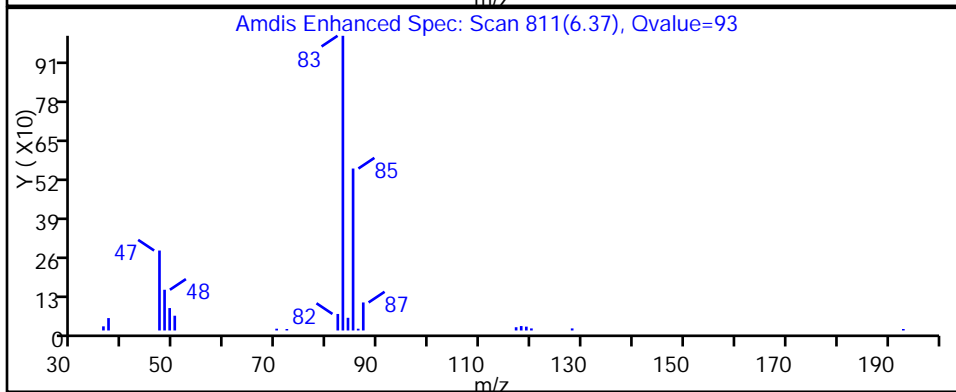
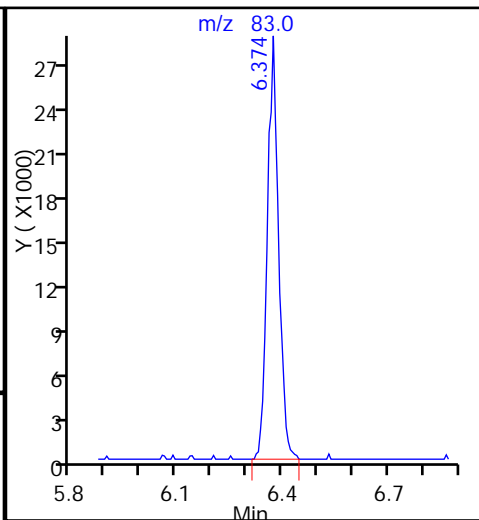
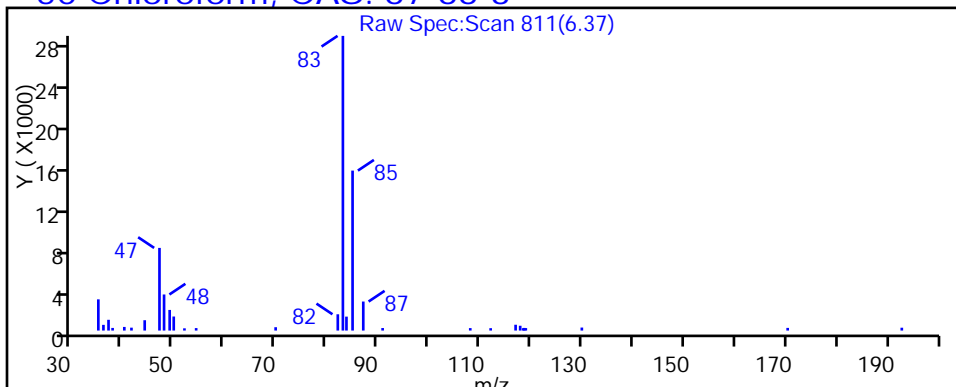
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

50 Chloroform, CAS: 67-66-3





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D

Injection Date: 28-Sep-2015 13:33:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-1

Lab Sample ID: 180-47984-1

Client ID: HD-MW-3-0/1-0

Operator ID: 001562

ALS Bottle#: 6 Worklist Smp#: 6

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

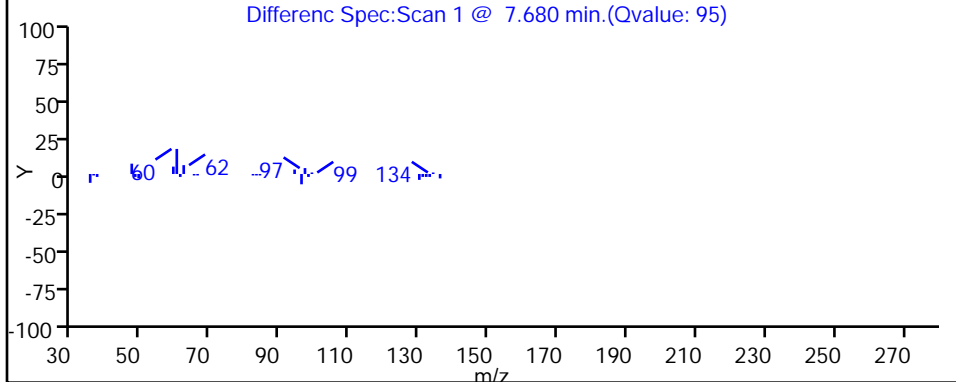
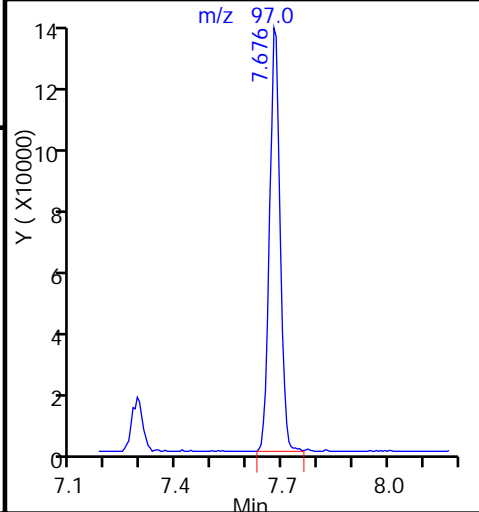
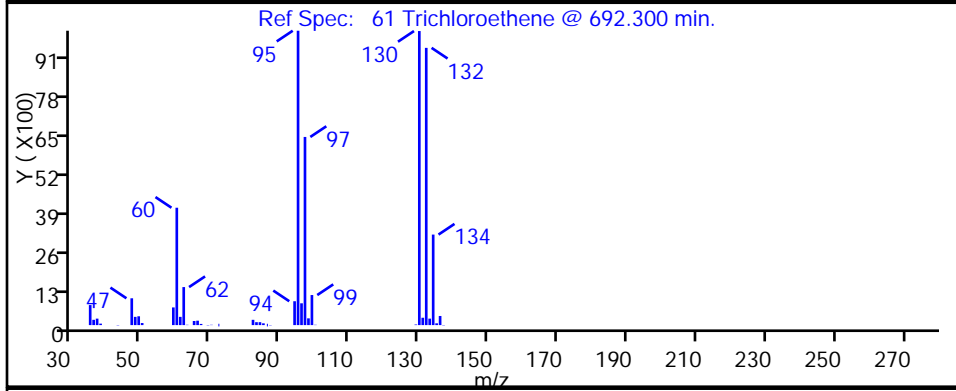
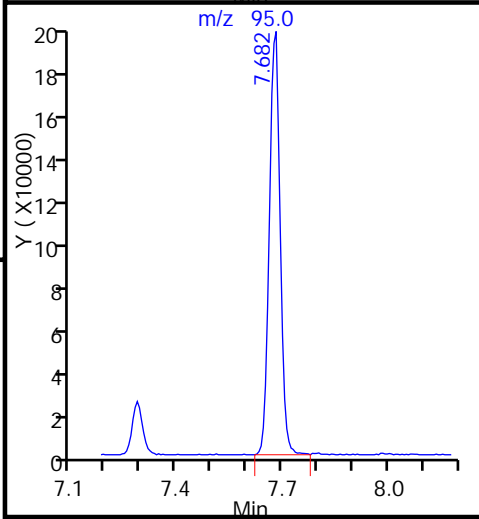
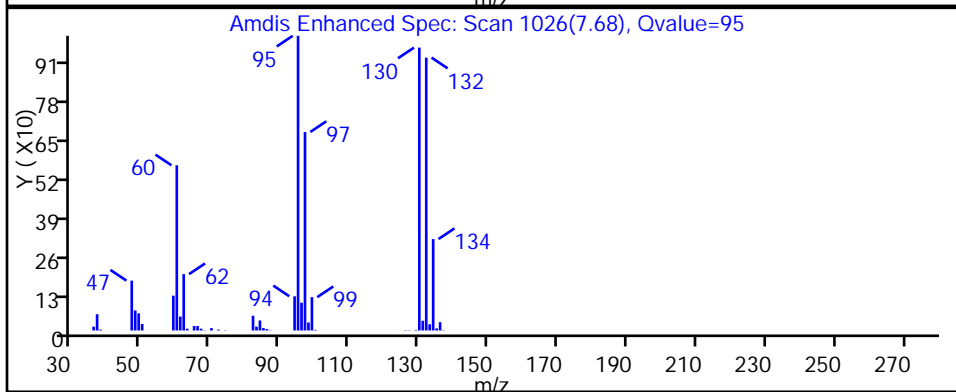
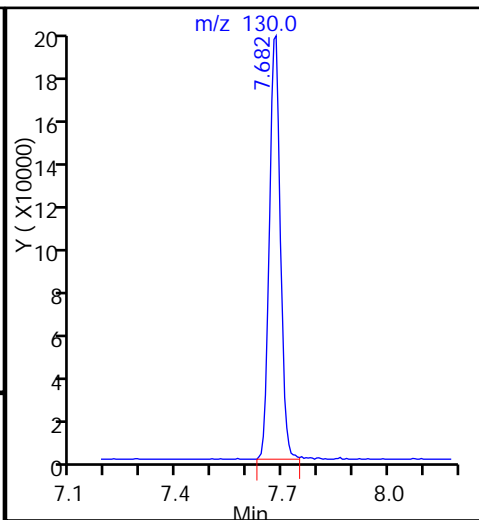
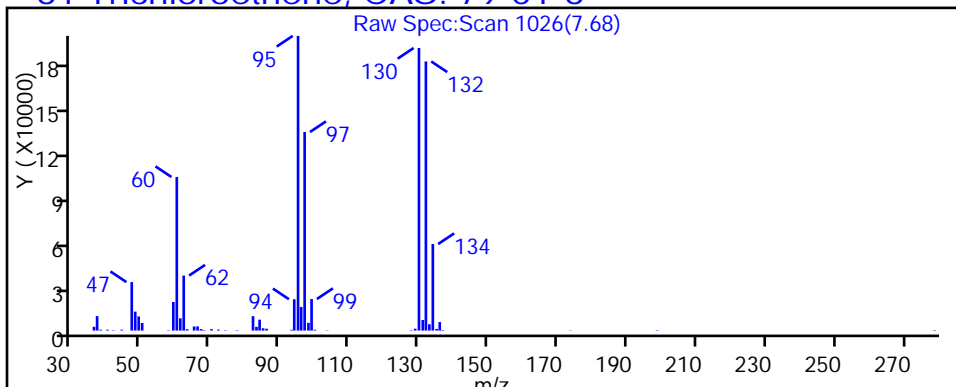
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

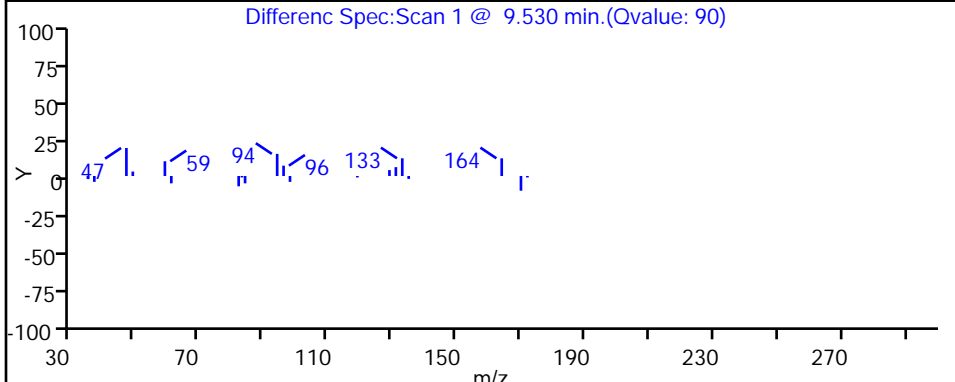
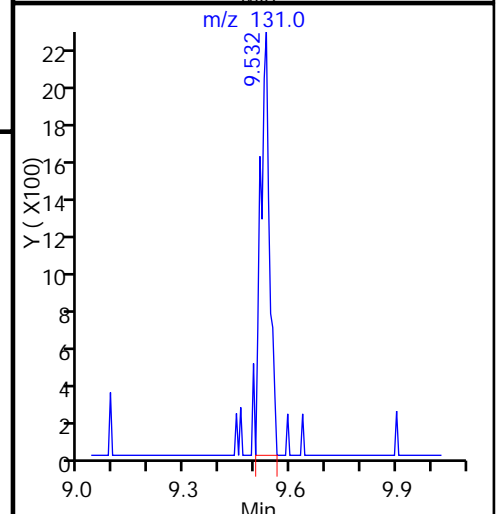
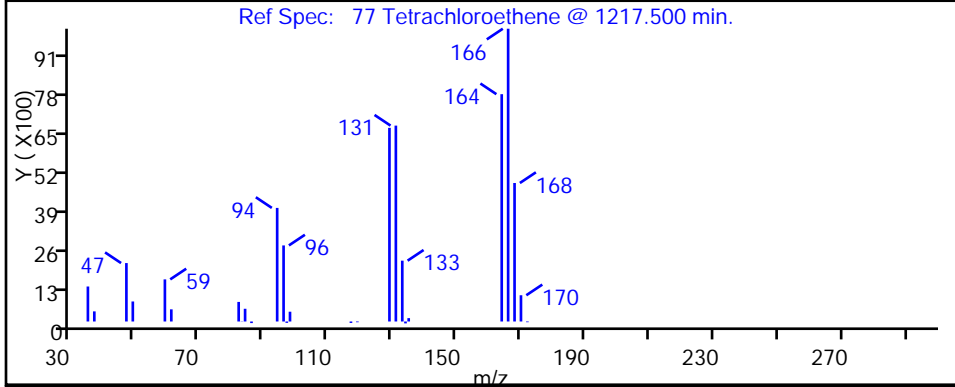
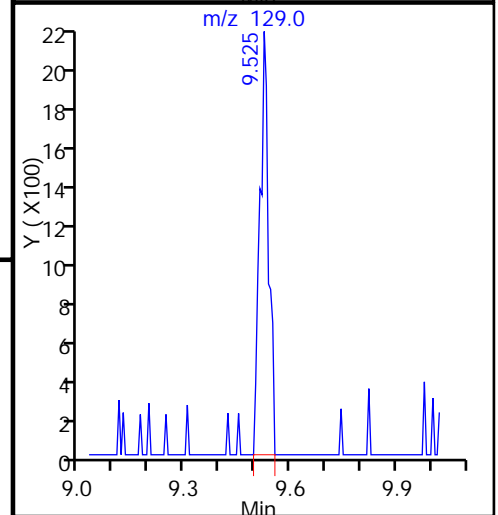
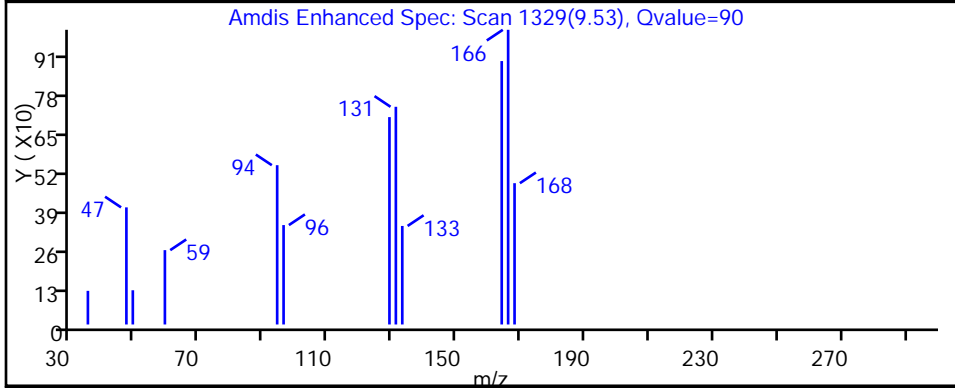
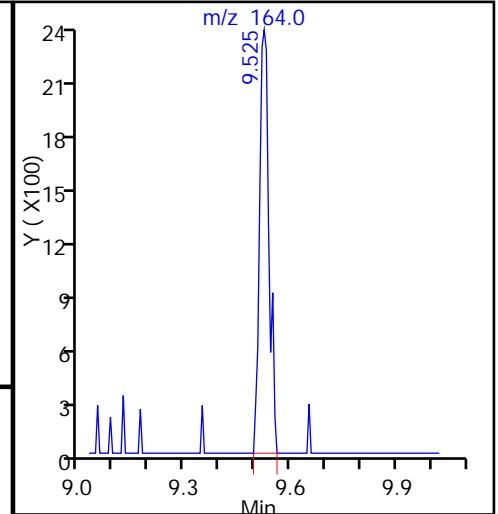
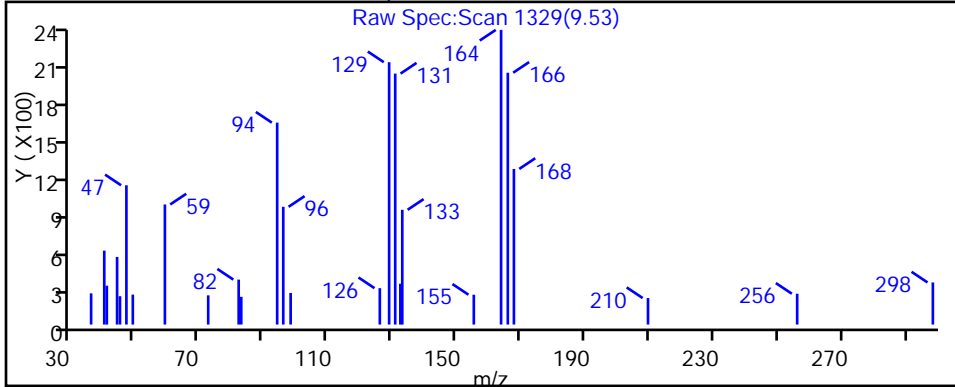
61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D  
Injection Date: 28-Sep-2015 13:33:30 Instrument ID: CHHP6  
Lims ID: 180-47984-A-1 Lab Sample ID: 180-47984-1  
Client ID: HD-MW-3-0/1-0  
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



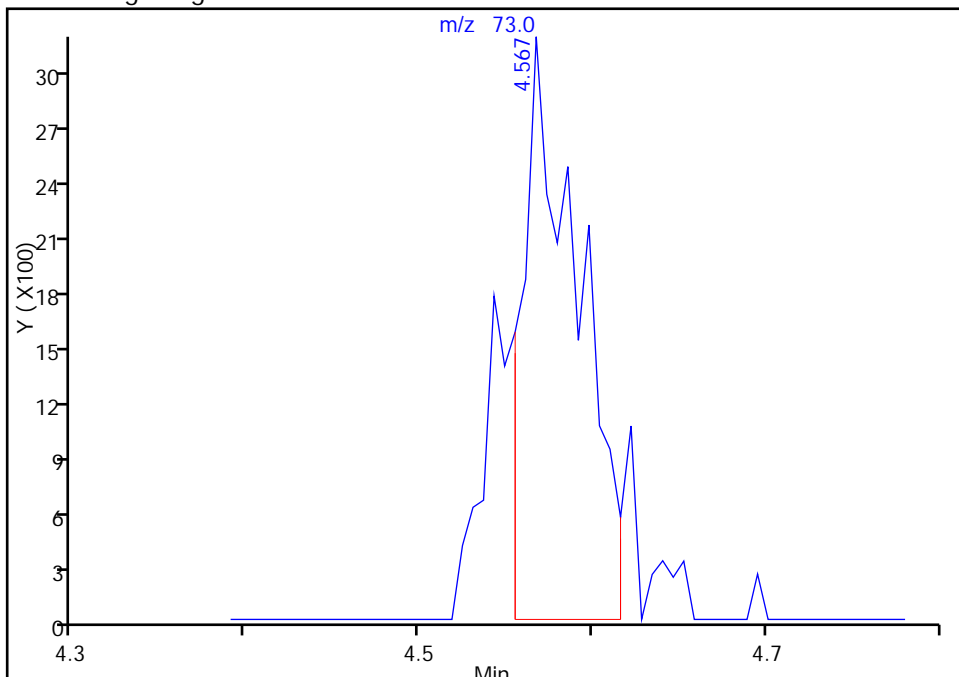
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928006.D  
Injection Date: 28-Sep-2015 13:33:30 Instrument ID: CHHP6  
Lims ID: 180-47984-A-1 Lab Sample ID: 180-47984-1  
Client ID: HD-MW-3-0/1-0  
Operator ID: 001562 ALS Bottle#: 6 Worklist Smp#: 6  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

35 Methyl tert-butyl ether, CAS: 1634-04-4

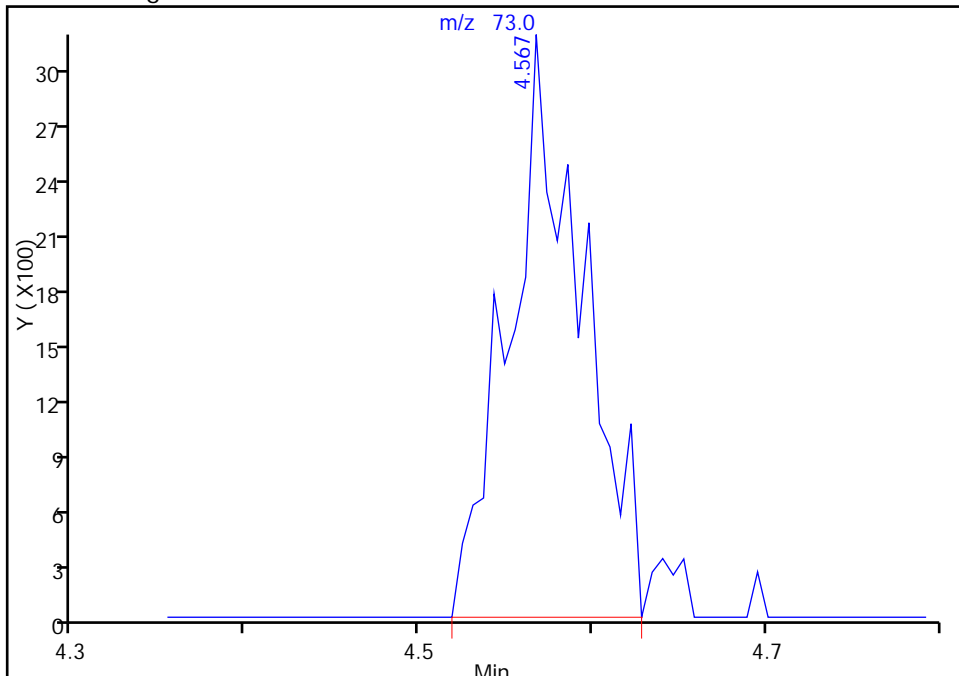
RT: 4.57  
Area: 7017  
Amount: 0.725931  
Amount Units: ng

Processing Integration Results



RT: 4.57  
Area: 9111  
Amount: 0.942562  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 28-Sep-2015 13:54:14  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-28-0/1-0 Lab Sample ID: 180-47984-2  
 Matrix: Water Lab File ID: 60930012.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 10:31  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 15:50  
 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.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	5.0		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	1.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.76	J	1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.7		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	2.3		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	0.41	J	1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-28-0/1-0 Lab Sample ID: 180-47984-2  
 Matrix: Water Lab File ID: 60930012.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 10:31  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 15:50  
 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.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D  
 Lims ID: 180-47984-A-2 Lab Sample ID: 180-47984-2  
 Client ID: HD-MW-28-0/1-0  
 Sample Type: Client  
 Inject. Date: 30-Sep-2015 15:50:30 ALS Bottle#: 12 Worklist Smp#: 12  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47984-A-2  
 Misc. Info.: 180-0008760-012  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 01-Oct-2015 09:16:26 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 01-Oct-2015 09:16:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.249	4.230	0.019	89	183792	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.290	0.001	97	488692	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.398	0.002	91	109782	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.747	0.001	97	183331	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.561	6.557	0.004	91	115309	51.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.928	0.004	70	181548	50.0	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.942	0.004	94	460922	53.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.588	-0.002	85	178469	46.4	
12 Chloromethane	50		1.763				ND	
13 Vinyl chloride	62		1.897				ND	
15 Bromomethane	94		2.238				ND	
16 Chloroethane	64		2.378				ND	
22 1,1-Dichloroethene	96	3.355	3.333	0.022	95	61360	24.9	
24 Acetone	43		3.430				ND	
26 Carbon disulfide	76		3.631				ND	
31 Methylene Chloride	84		4.124				ND	
33 Acrylonitrile	53		4.501				ND	
34 trans-1,2-Dichloroethene	96		4.562				ND	
35 Methyl tert-butyl ether	73		4.568				ND	
37 1,1-Dichloroethane	63	5.204	5.194	0.010	97	31161	6.13	
43 cis-1,2-Dichloroethene	96	5.946	5.936	0.010	86	11768	3.81	
44 2-Butanone (MEK)	43		5.943				ND	
48 Chlorobromomethane	128		6.228				ND	
50 Chloroform	83	6.384	6.374	0.010	1	1266	0.2510	
51 1,1,1-Trichloroethane	97	6.543	6.539	0.004	96	161315	43.3	
53 Carbon tetrachloride	117		6.709				ND	
56 Benzene	78		6.940				ND	
57 1,2-Dichloroethane	62	7.017	7.013	0.004	7	974	0.2123	
61 Trichloroethene	130	7.686	7.676	0.010	96	27130	11.4	
64 1,2-Dichloropropane	63		7.950				ND	
65 1,4-Dioxane	88		8.029				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.230				ND	
71 cis-1,3-Dichloropropene	75		8.674				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.826				ND	
73 Toluene	91		9.009				ND	
74 trans-1,3-Dichloropropene	75		9.252				ND	
76 1,1,2-Trichloroethane	97		9.453				ND	
77 Tetrachloroethene	164	9.530	9.526	0.004	92	3982	2.06	
79 2-Hexanone	43		9.660				ND	
81 Chlorodibromomethane	129		9.824				ND	
82 Ethylene Dibromide	107		9.939				ND	
84 Chlorobenzene	112		10.426				ND	
86 1,1,1,2-Tetrachloroethane	131		10.523				ND	
87 Ethylbenzene	106		10.529				ND	
88 m-Xylene & p-Xylene	106		10.657				ND	
89 o-Xylene	106		11.040				ND	
90 Styrene	104		11.065				ND	
91 Bromoform	173		11.247				ND	
96 1,1,2,2-Tetrachloroethane	83		11.716				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D

Injection Date: 30-Sep-2015 15:50:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-A-2

Lab Sample ID: 180-47984-2

Worklist Smp#: 12

Client ID: HD-MW-28-0/1-0

Purge Vol: 5.000 mL

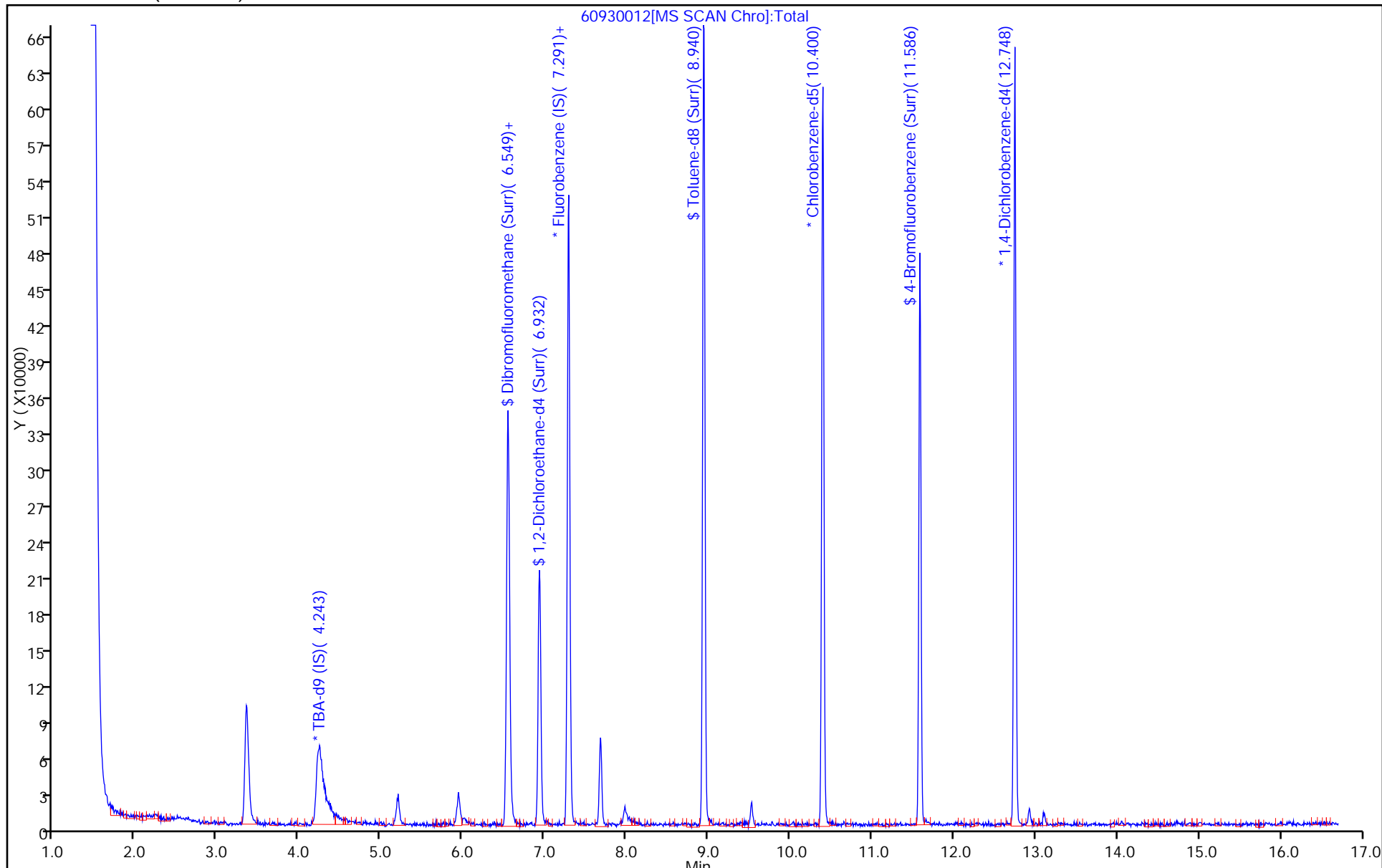
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D

Injection Date: 30-Sep-2015 15:50:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-2

Lab Sample ID: 180-47984-2

Client ID: HD-MW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

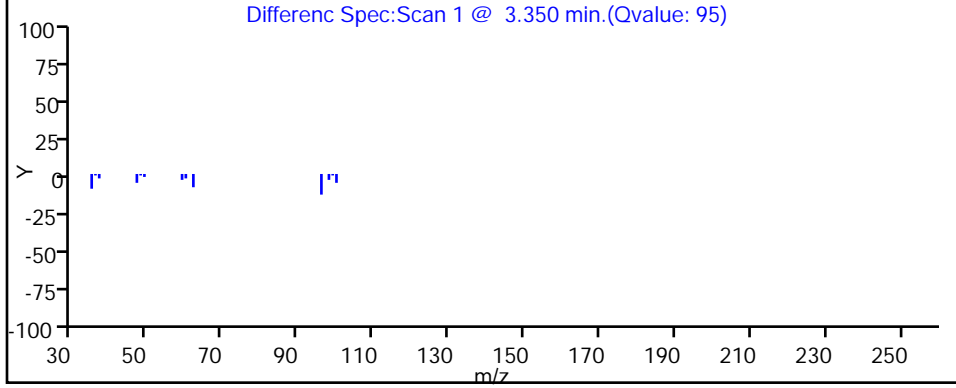
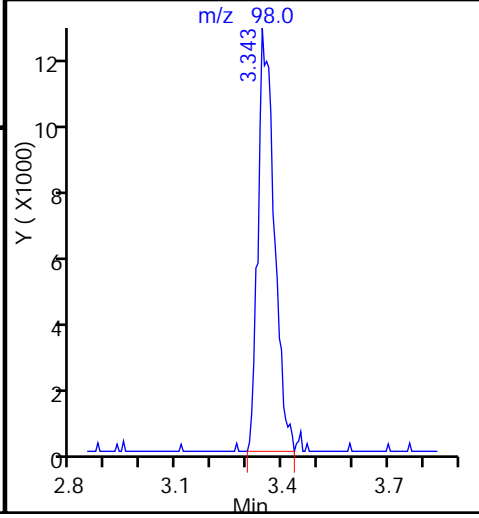
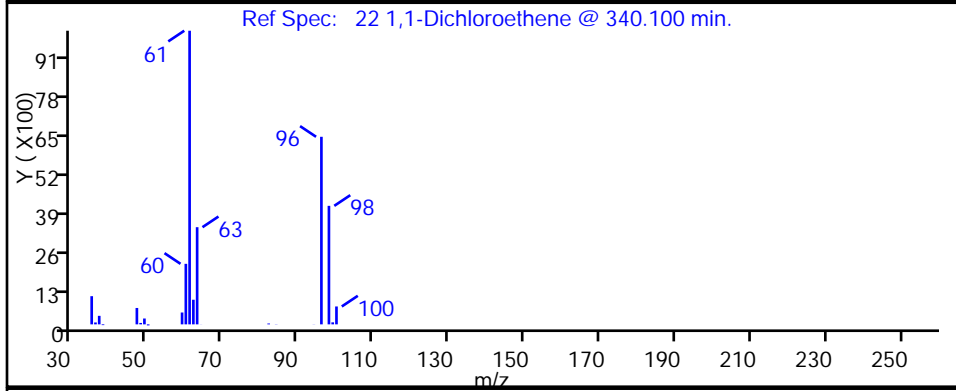
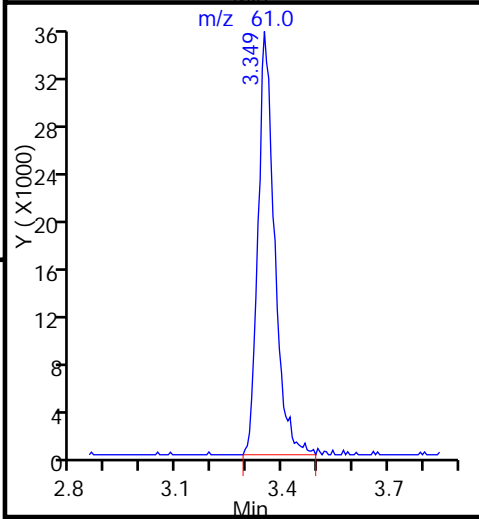
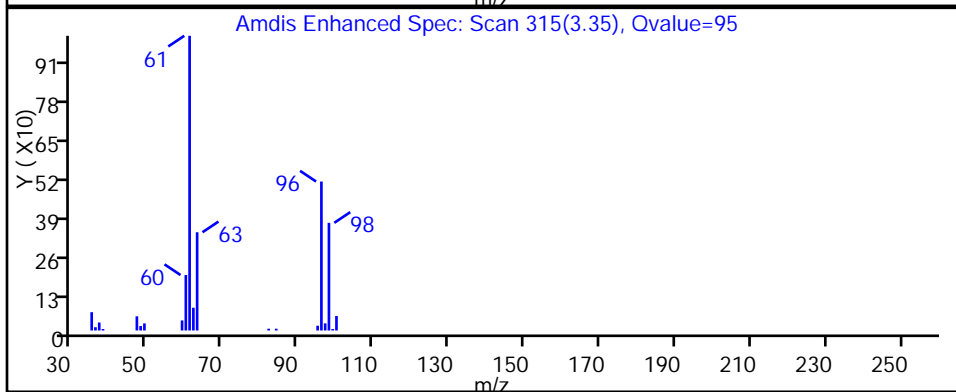
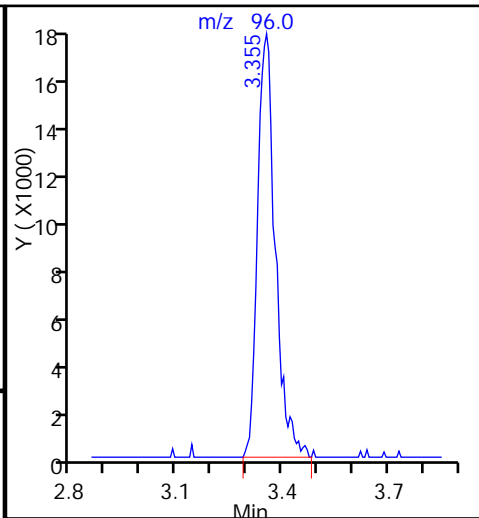
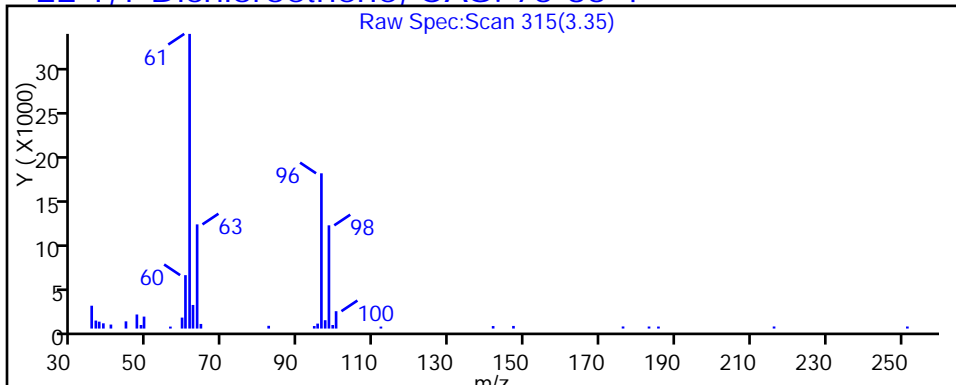
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D

Injection Date: 30-Sep-2015 15:50:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-2

Lab Sample ID: 180-47984-2

Client ID: HD-MW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

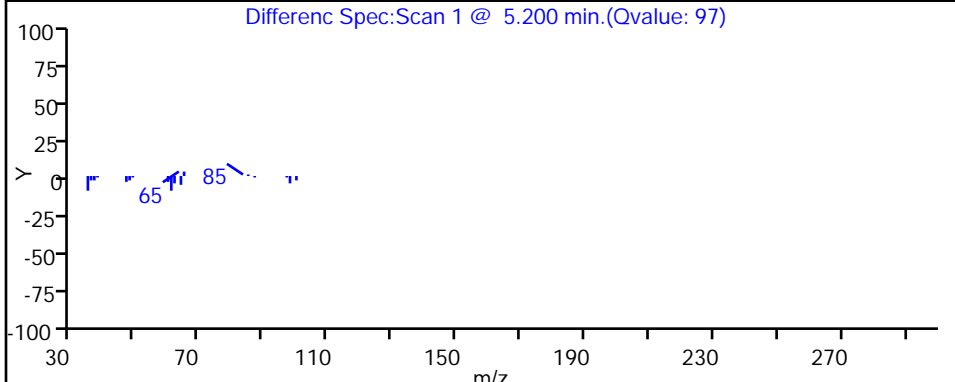
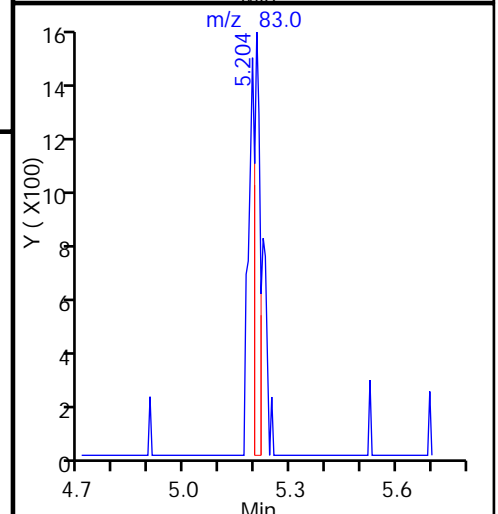
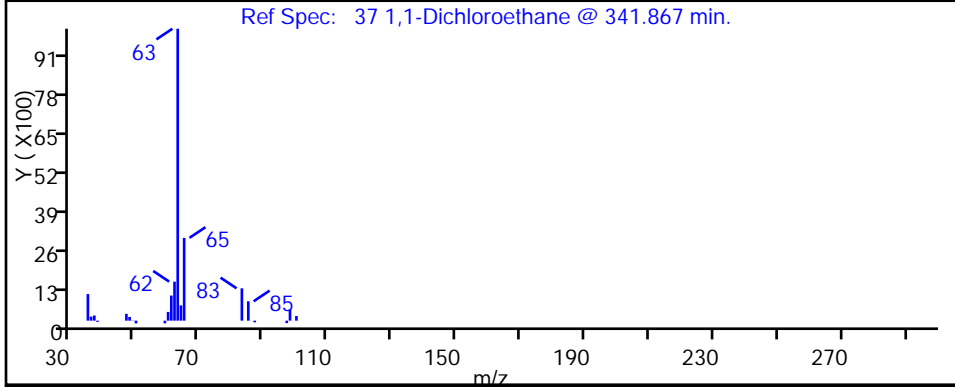
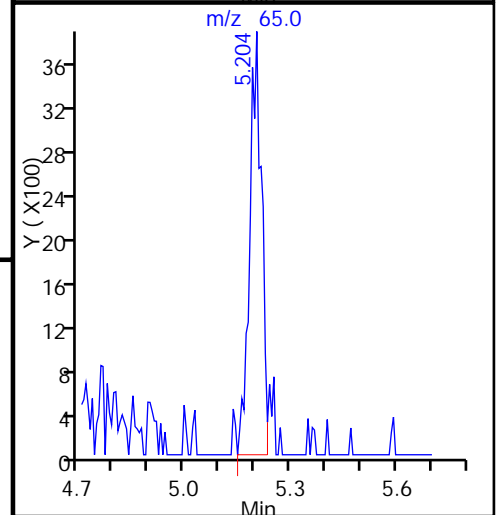
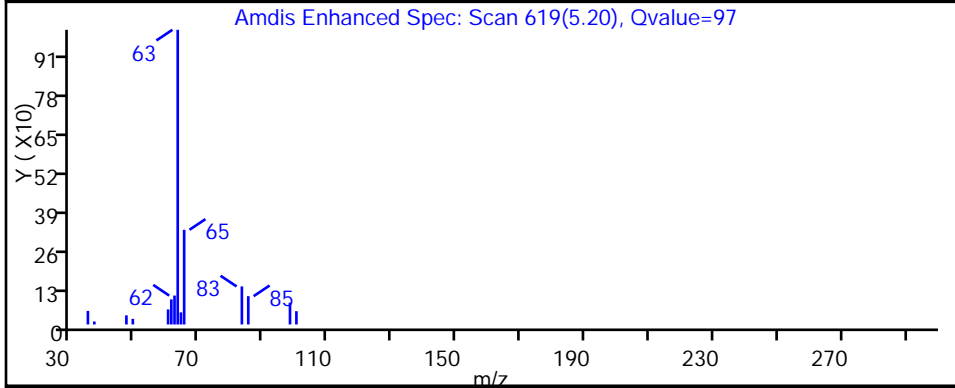
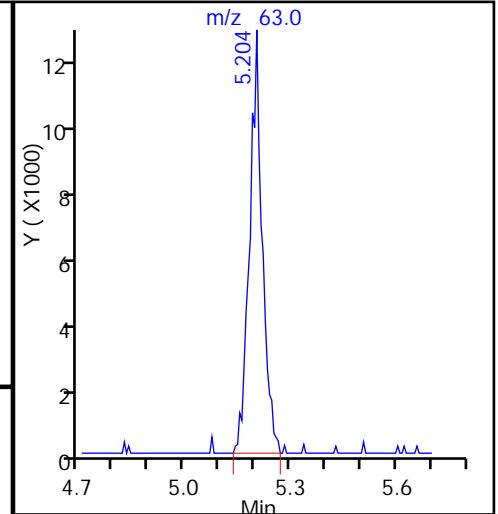
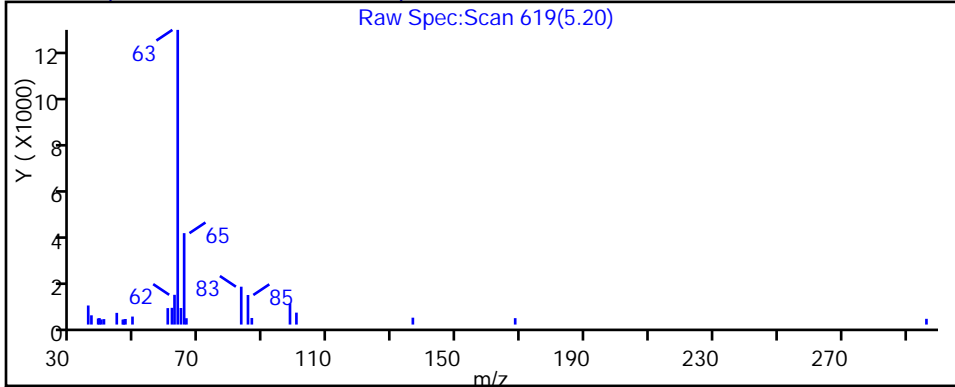
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D

Injection Date: 30-Sep-2015 15:50:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-2

Lab Sample ID: 180-47984-2

Client ID: HD-MW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

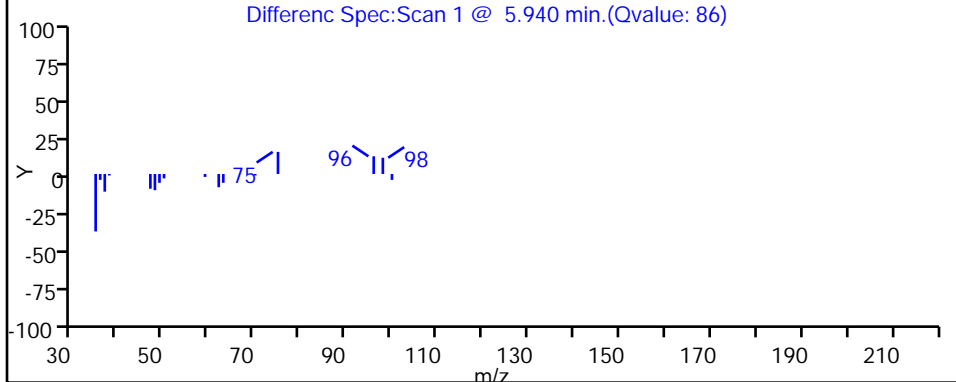
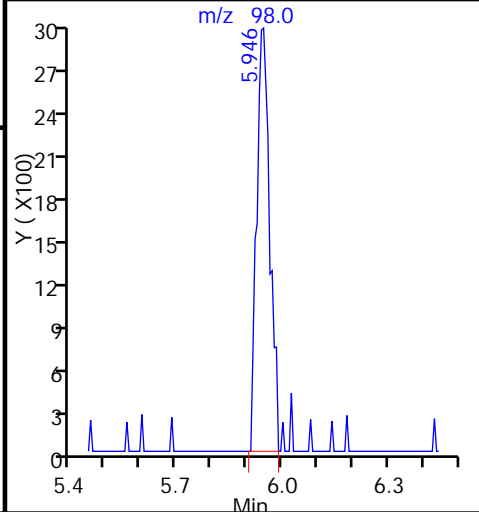
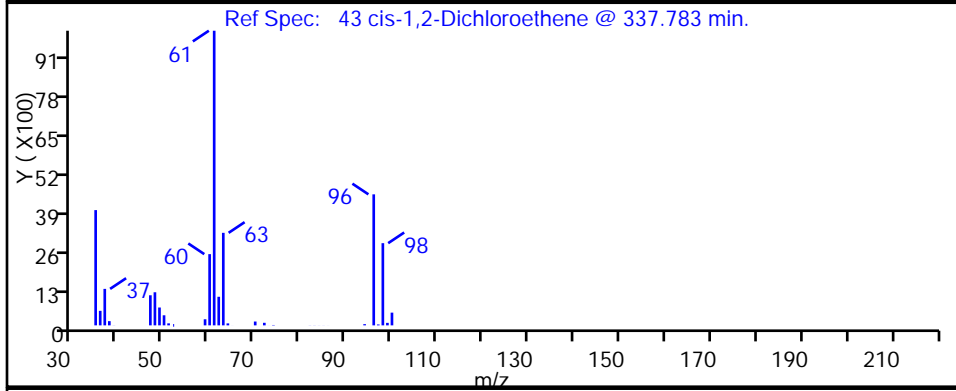
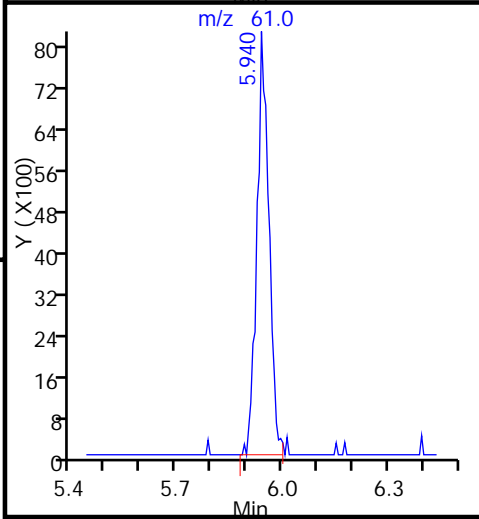
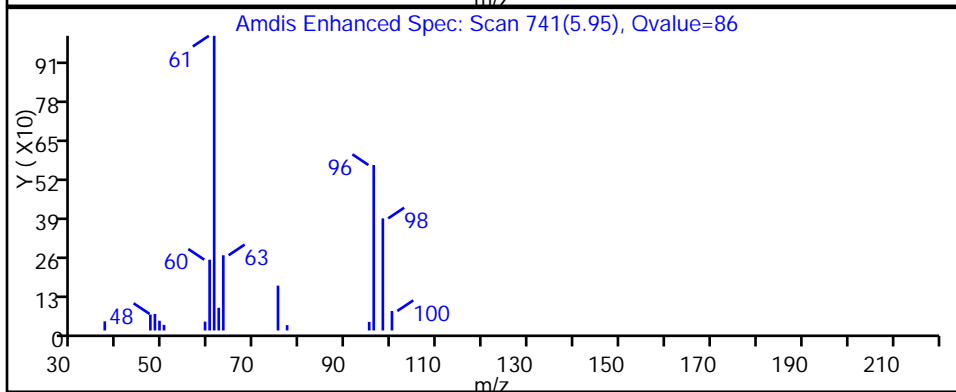
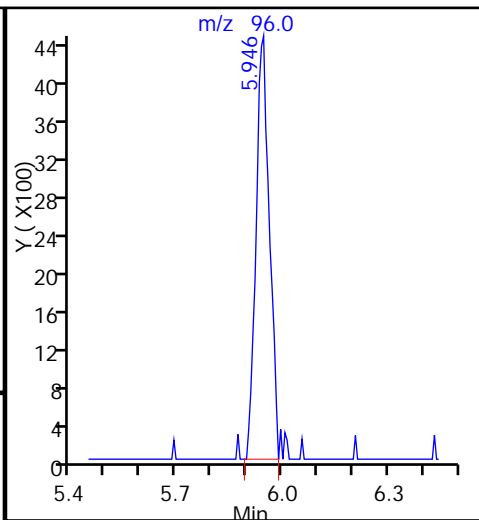
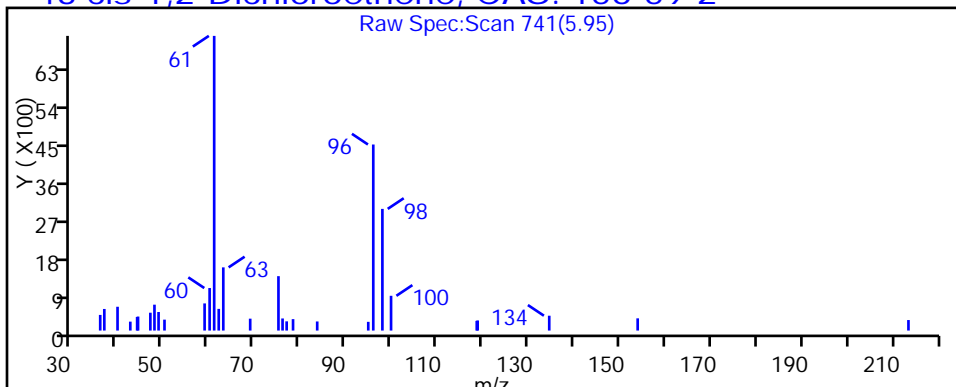
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D

Injection Date: 30-Sep-2015 15:50:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-2

Lab Sample ID: 180-47984-2

Client ID: HD-MW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

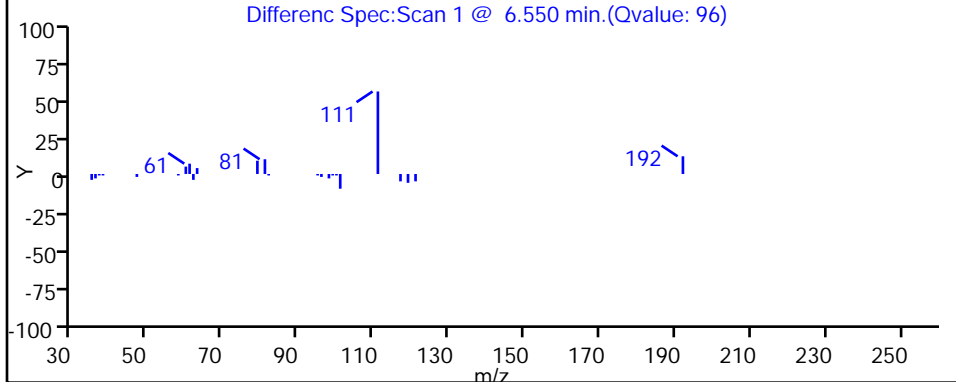
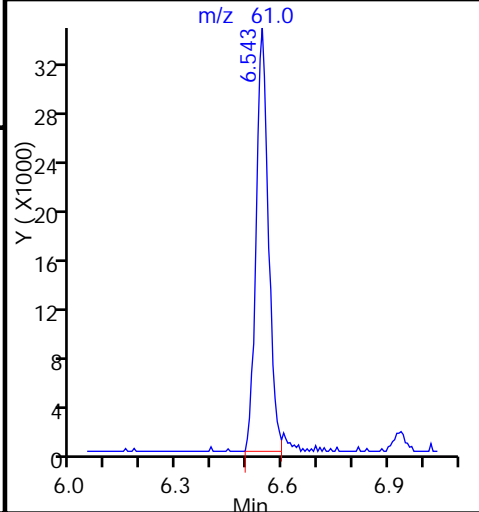
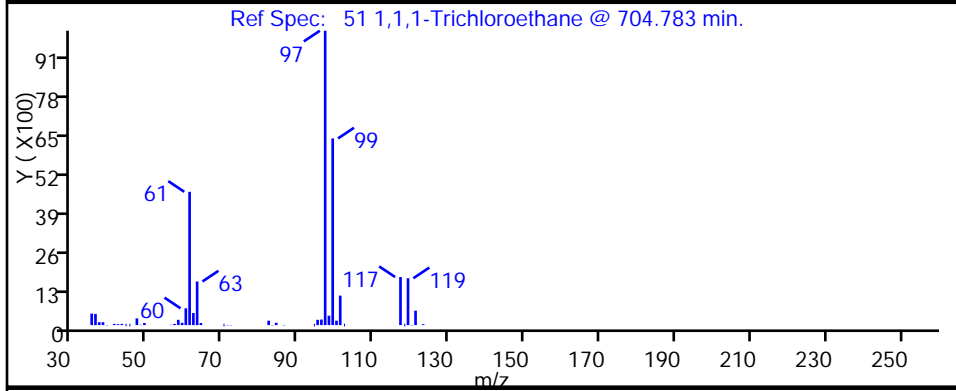
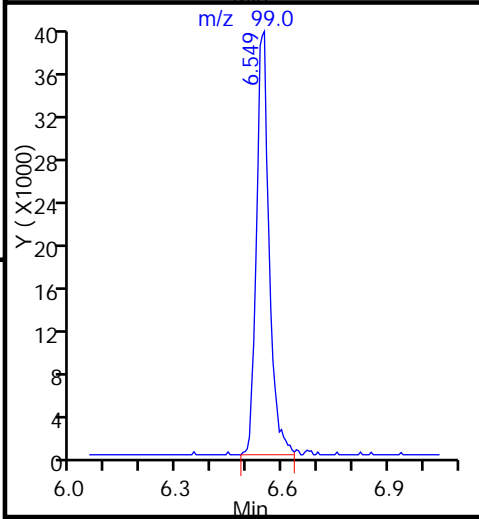
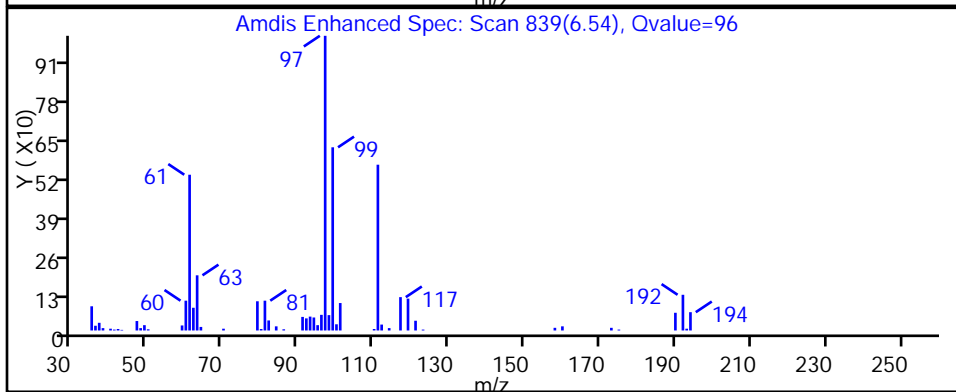
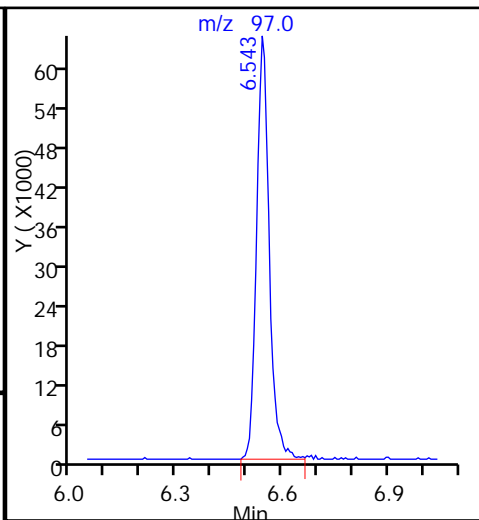
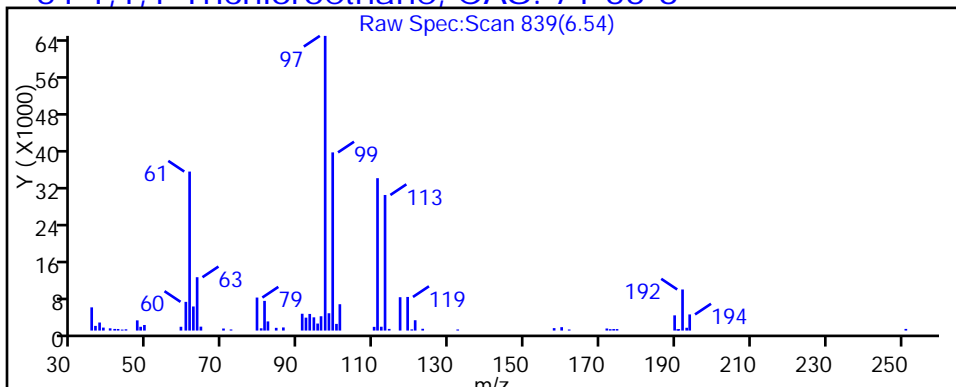
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

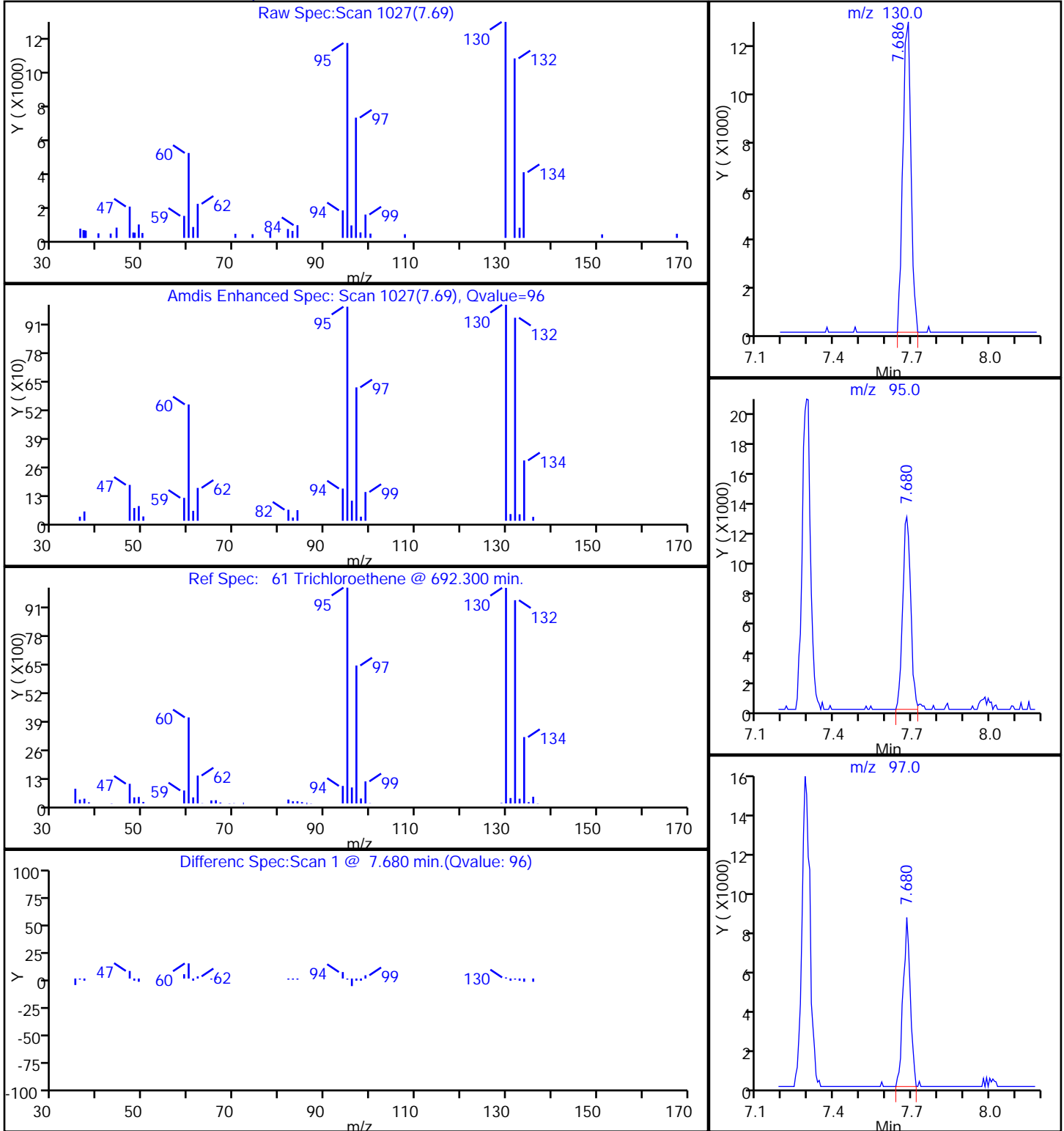
51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D  
Injection Date: 30-Sep-2015 15:50:30 Instrument ID: CHHP6  
Lims ID: 180-47984-A-2 Lab Sample ID: 180-47984-2  
Client ID: HD-MW-28-0/1-0  
Operator ID: 001562 ALS Bottle#: 12 Worklist Smp#: 12  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930012.D

Injection Date: 30-Sep-2015 15:50:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-2

Lab Sample ID: 180-47984-2

Client ID: HD-MW-28-0/1-0

Operator ID: 001562

ALS Bottle#: 12

Worklist Smp#: 12

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

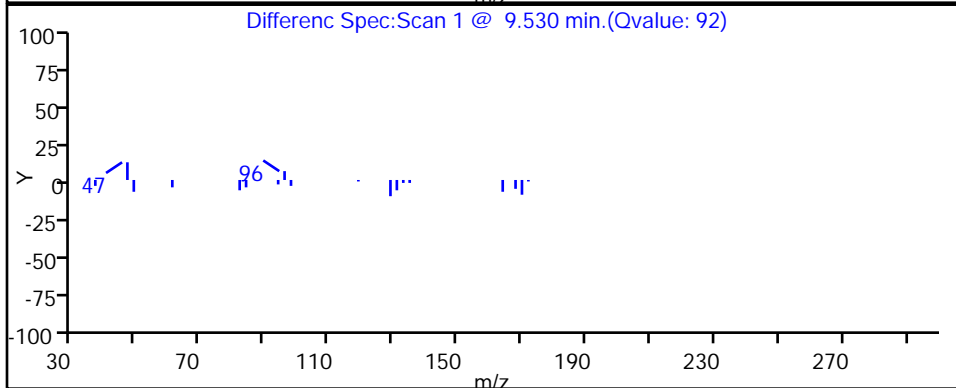
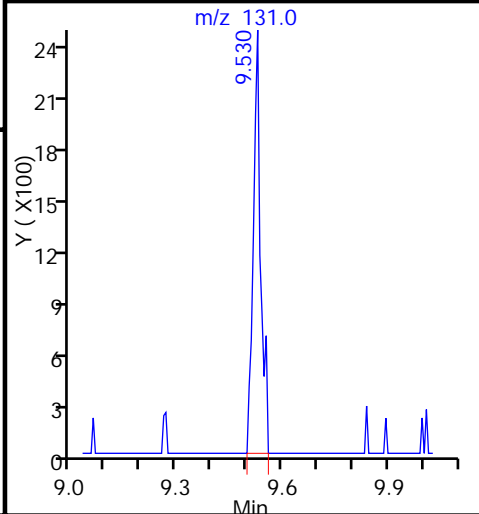
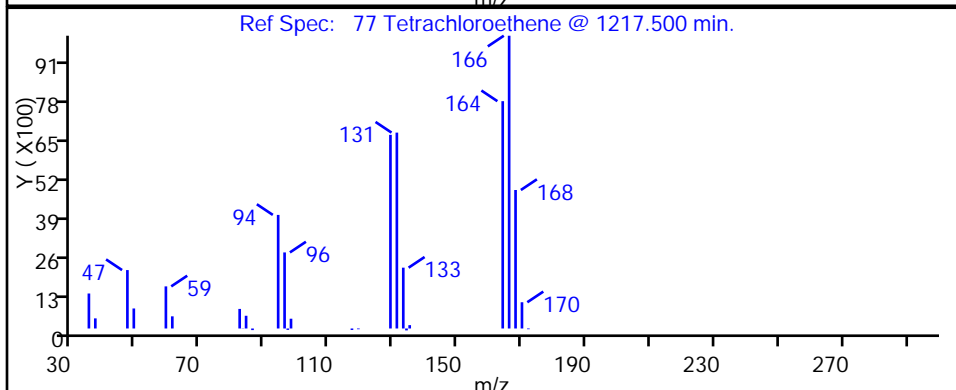
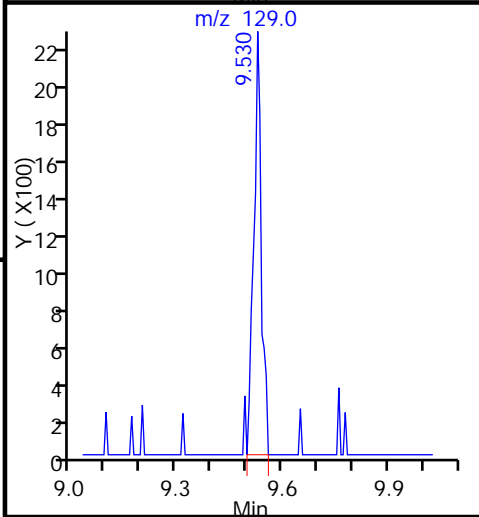
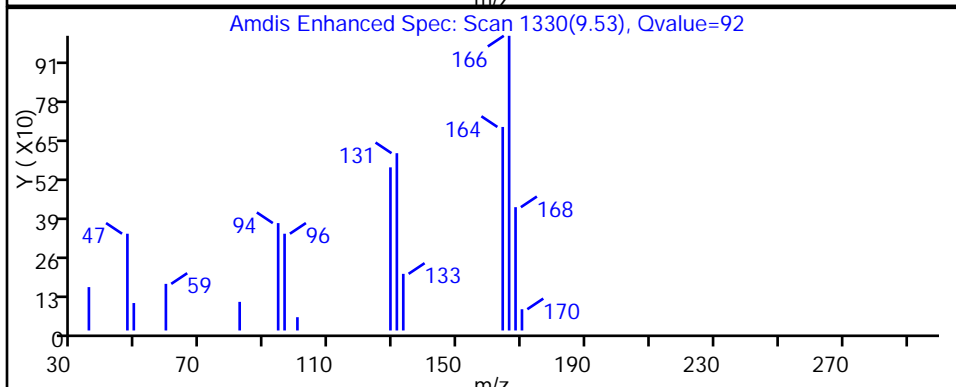
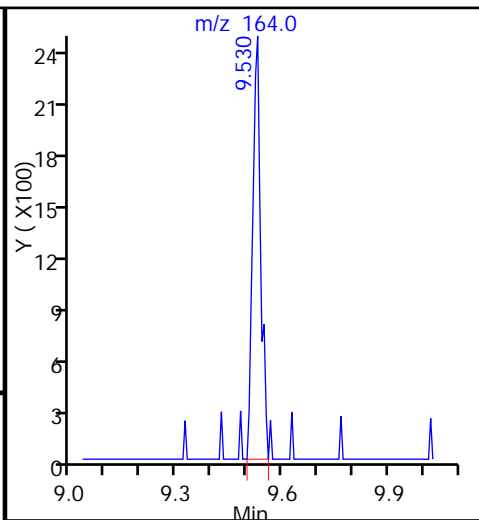
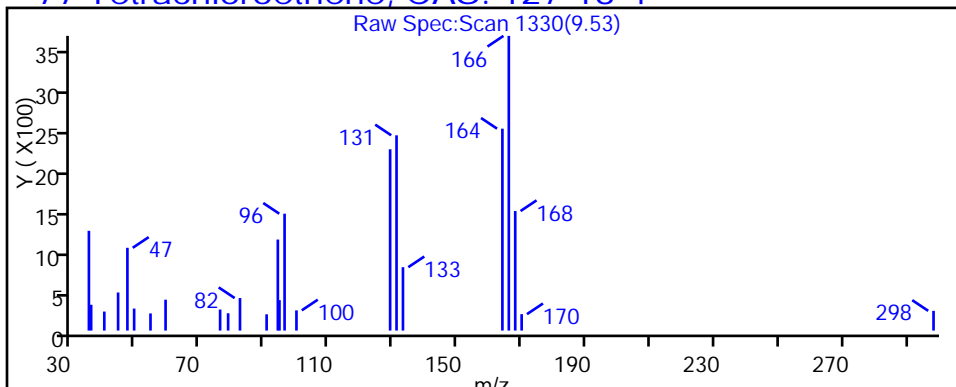
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-32D-0/1-0 Lab Sample ID: 180-47984-3  
 Matrix: Water Lab File ID: 60929022.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 12:57  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 19:57  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		10	2.8
75-01-4	Vinyl chloride	21		10	2.3
74-83-9	Bromomethane	ND	^c	10	3.1
75-00-3	Chloroethane	ND		10	2.1
75-35-4	1,1-Dichloroethene	33		10	3.0
67-64-1	Acetone	ND		50	25
75-15-0	Carbon disulfide	ND		10	2.1
75-09-2	Methylene Chloride	ND		10	1.3
156-60-5	trans-1,2-Dichloroethene	2.0	J	10	1.7
1634-04-4	Methyl tert-butyl ether	ND		10	1.8
75-34-3	1,1-Dichloroethane	11		10	1.2
156-59-2	cis-1,2-Dichloroethene	360		10	2.4
74-97-5	Bromochloromethane	ND		10	1.8
78-93-3	2-Butanone (MEK)	ND		50	5.5
67-66-3	Chloroform	ND		10	1.7
71-55-6	1,1,1-Trichloroethane	4.0	J	10	2.9
56-23-5	Carbon tetrachloride	ND		10	1.4
71-43-2	Benzene	ND		10	1.1
107-06-2	1,2-Dichloroethane	ND		10	2.1
79-01-6	Trichloroethene	720	E	10	1.4
78-87-5	1,2-Dichloropropane	ND		10	0.95
75-27-4	Bromodichloromethane	ND		10	1.3
10061-01-5	cis-1,3-Dichloropropene	ND		10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	5.3
108-88-3	Toluene	ND		10	1.5
10061-02-6	trans-1,3-Dichloropropene	ND		10	1.5
79-00-5	1,1,2-Trichloroethane	ND		10	2.0
127-18-4	Tetrachloroethene	49		10	1.5
591-78-6	2-Hexanone	ND		50	1.6
124-48-1	Dibromochloromethane	ND		10	1.4
106-93-4	1,2-Dibromoethane (EDB)	ND		10	1.8
108-90-7	Chlorobenzene	ND		10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	ND		10	2.8
100-41-4	Ethylbenzene	ND		10	2.3
1330-20-7	Xylenes, Total	ND		30	4.9
100-42-5	Styrene	ND		10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-32D-0/1-0 Lab Sample ID: 180-47984-3  
 Matrix: Water Lab File ID: 60929022.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 12:57  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 19:57  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	ND		10	2.0
107-13-1	Acrylonitrile	ND		200	5.5
123-91-1	1,4-Dioxane	ND		2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D  
 Lims ID: 180-47984-B-3 Lab Sample ID: 180-47984-3  
 Client ID: HD-MW-32D-0/1-0  
 Sample Type: Client  
 Inject. Date: 29-Sep-2015 19:57:30 ALS Bottle#: 21 Worklist Smp#: 22  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-47984-B-3, 10x  
 Misc. Info.: 180-0008741-022  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 08:30:12 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond

Date: 30-Sep-2015 08:30:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.243	4.242	0.001	85	167894	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	98	485220	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	92	110269	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	98	178890	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.560	6.553	0.007	92	116867	52.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.931	0.007	71	190760	52.9	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.938	0.007	95	466698	53.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	84	172826	44.8	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62	1.900	1.900	0.000	98	33127	10.6	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.348	3.335	0.013	93	39711	16.3	
24 Acetone	43		3.420				ND	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96	4.589	4.558	0.031	18	2830	1.00	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.204	5.191	0.013	97	27042	5.36	
43 cis-1,2-Dichloroethene	96	5.946	5.939	0.007	87	547000	178.5	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97	6.548	6.541	0.007	37	7471	2.02	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.680	7.679	0.001	95	843383	357.6	E
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.529	9.522	0.007	81	47872	24.7	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

### QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

### Reagents:

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Worklist Smp#: 22

Client ID: HD-MW-32D-0/1-0

Purge Vol: 5.000 mL

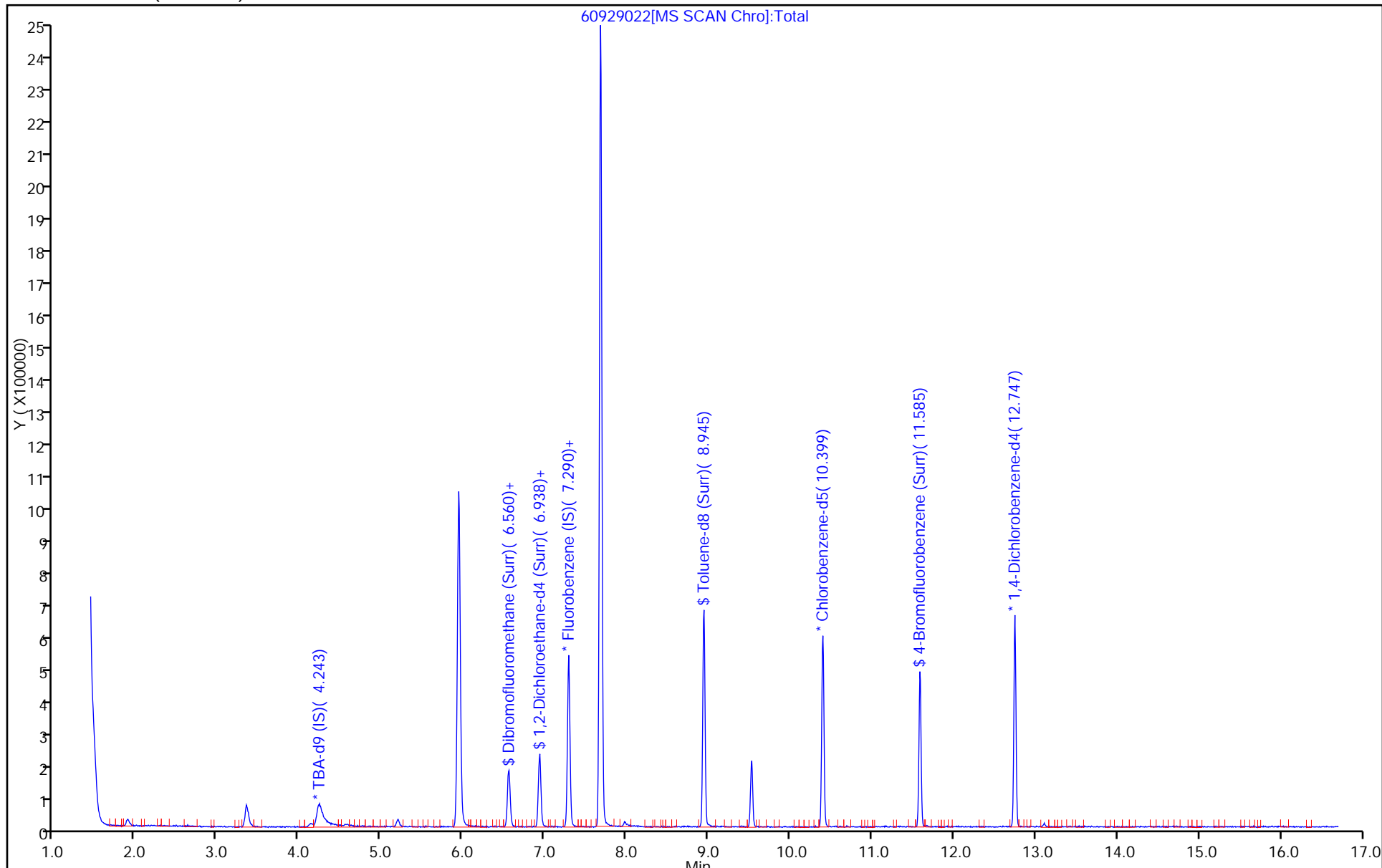
Dil. Factor: 10.0000

ALS Bottle#: 21

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

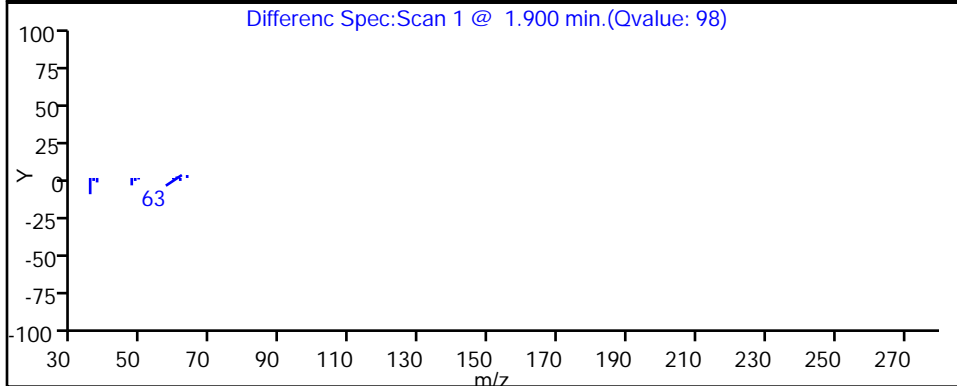
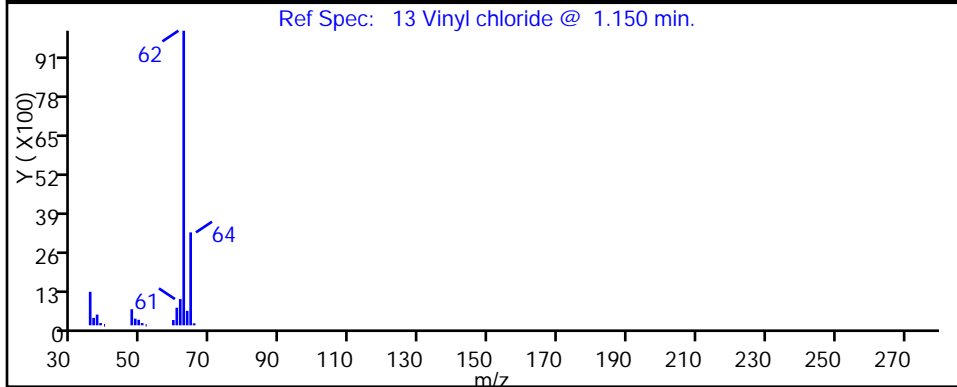
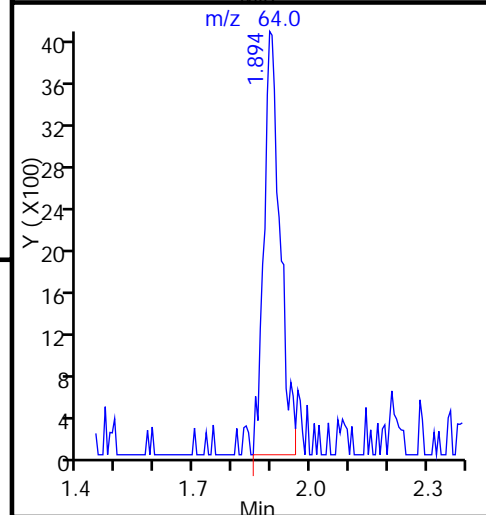
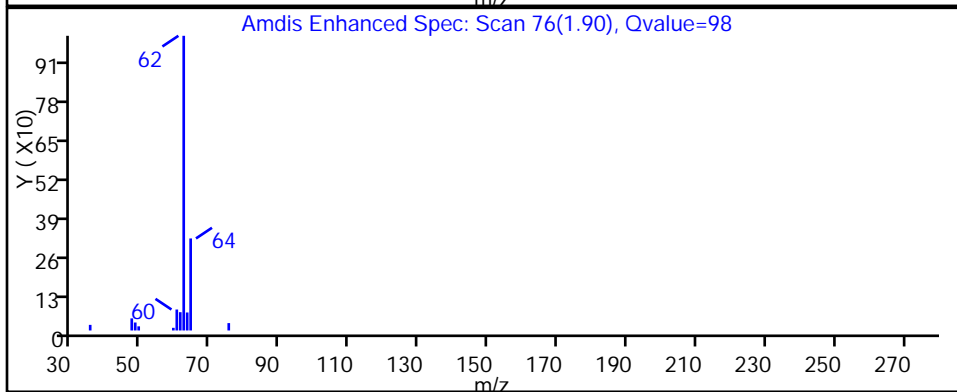
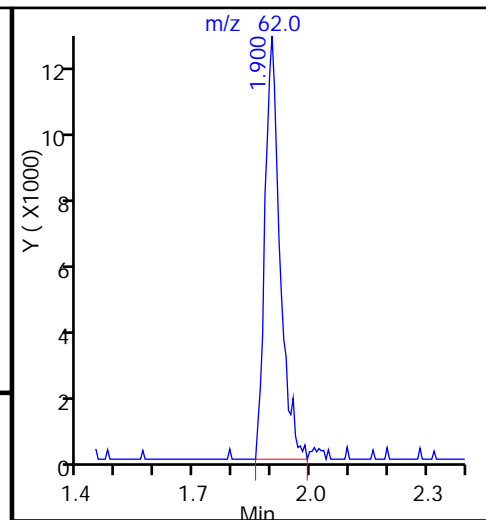
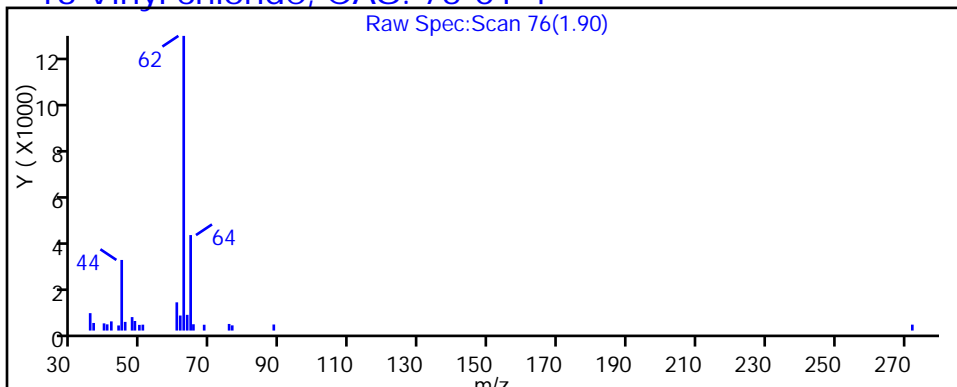
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

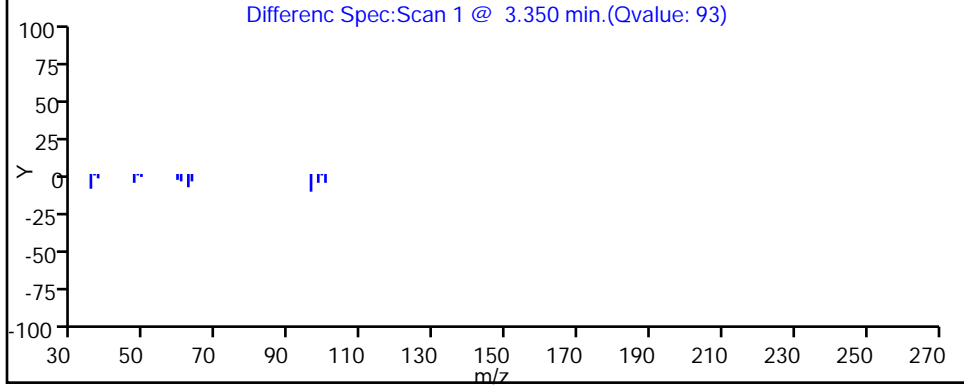
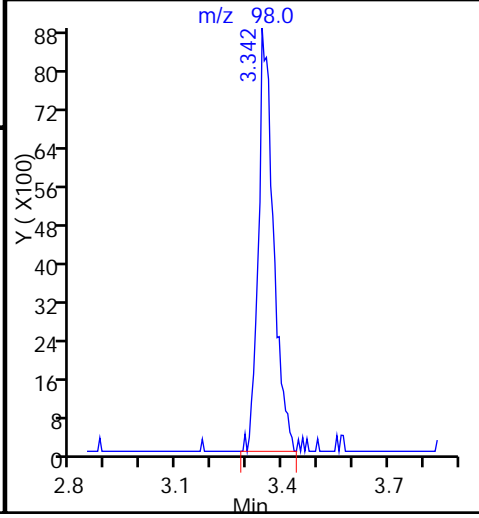
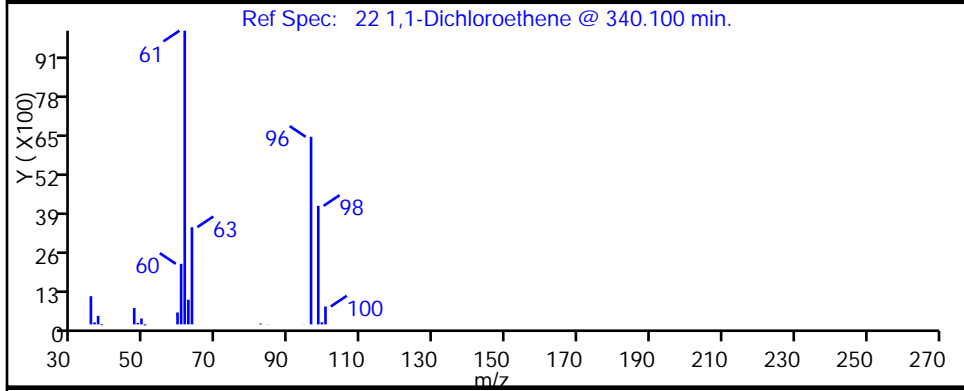
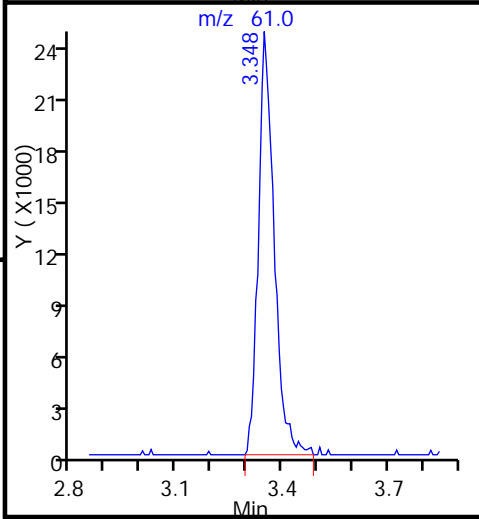
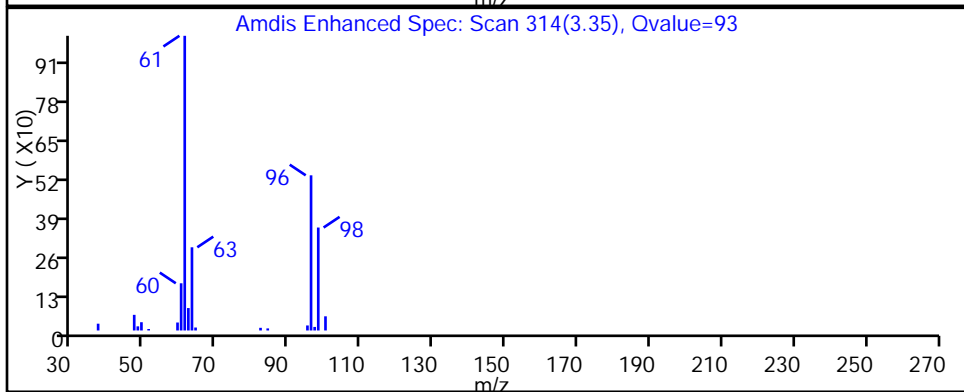
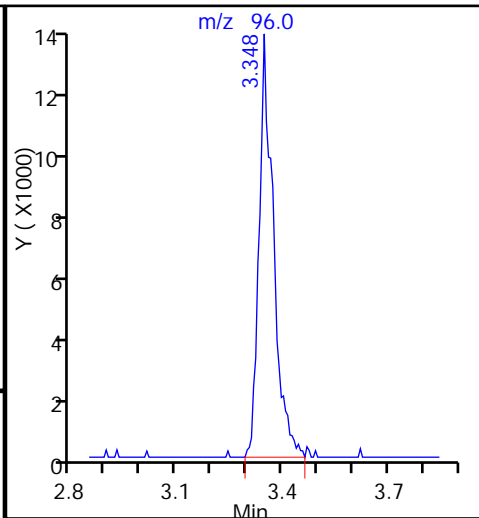
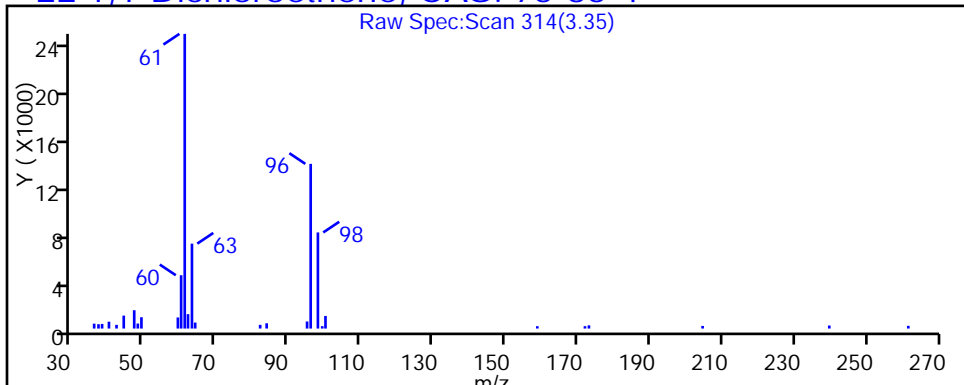
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

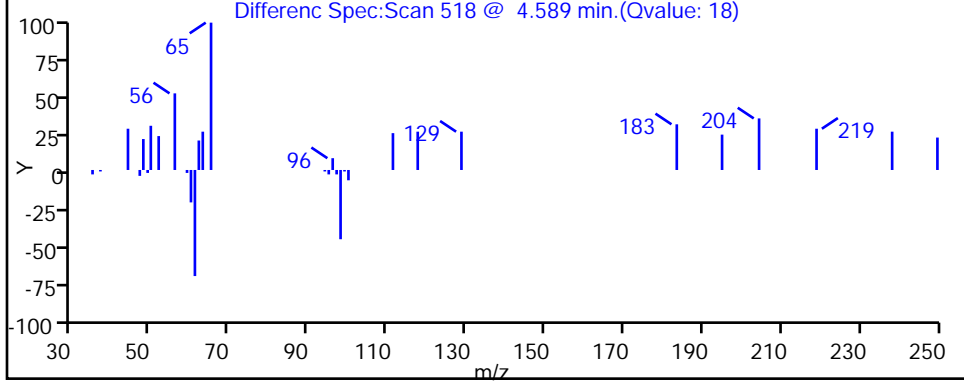
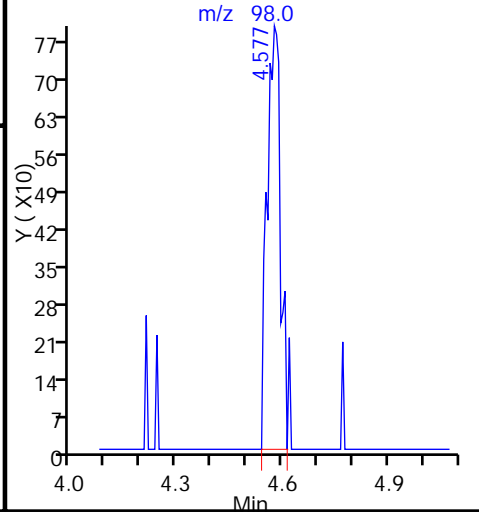
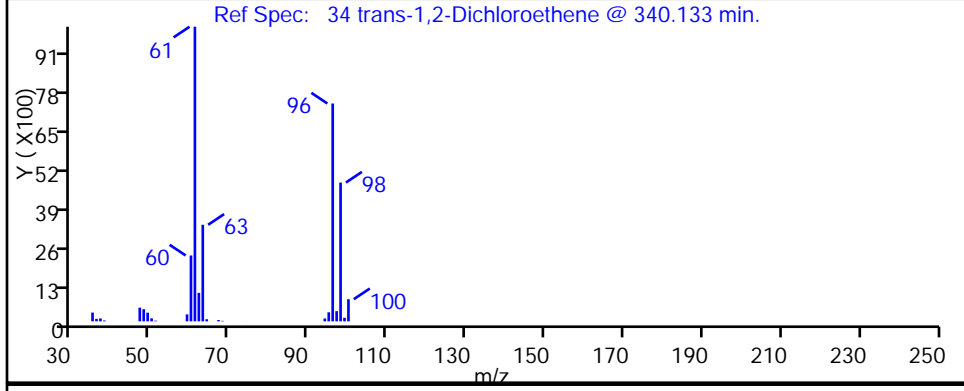
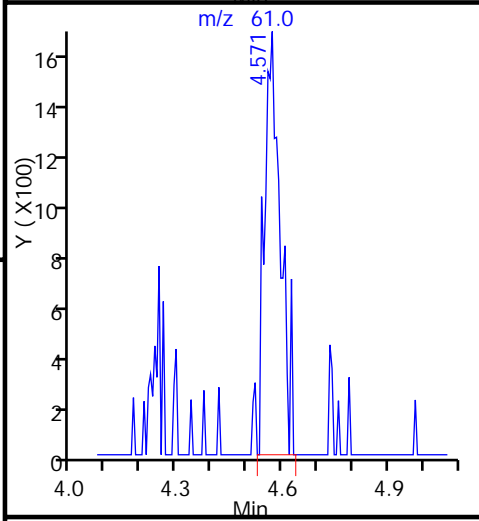
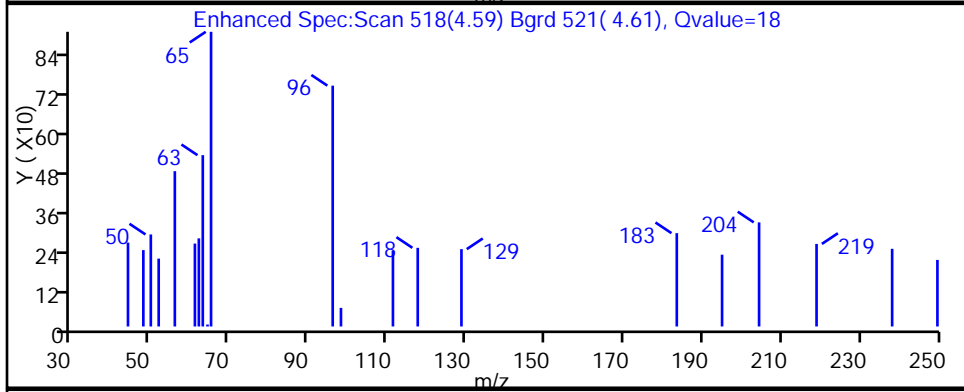
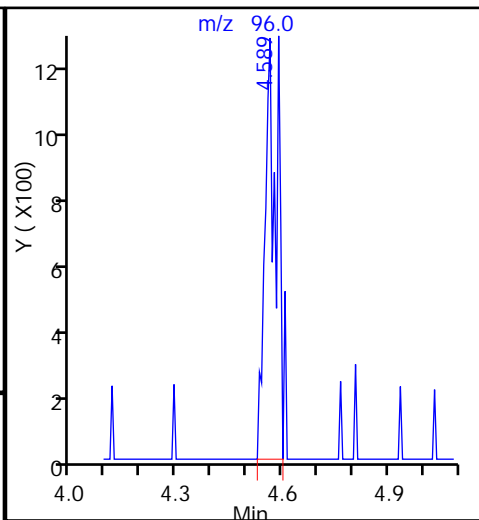
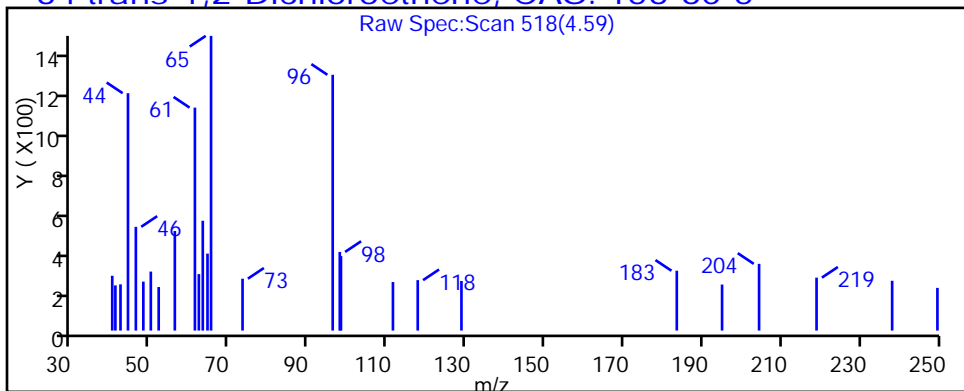
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

34 trans-1,2-Dichloroethene, CAS: 156-60-5



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

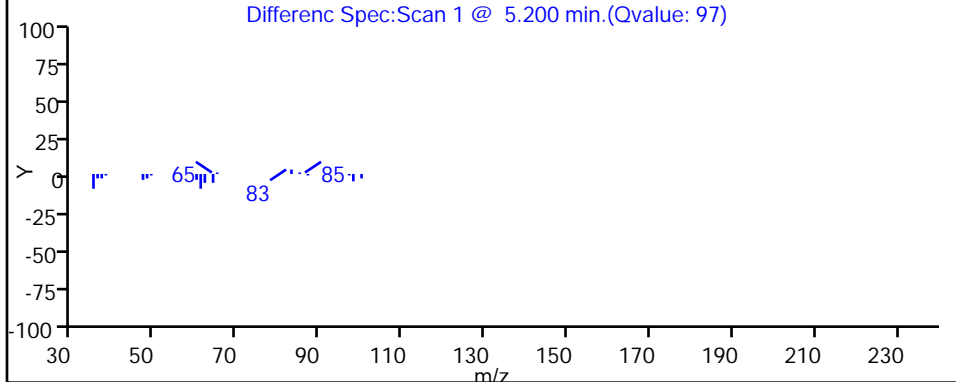
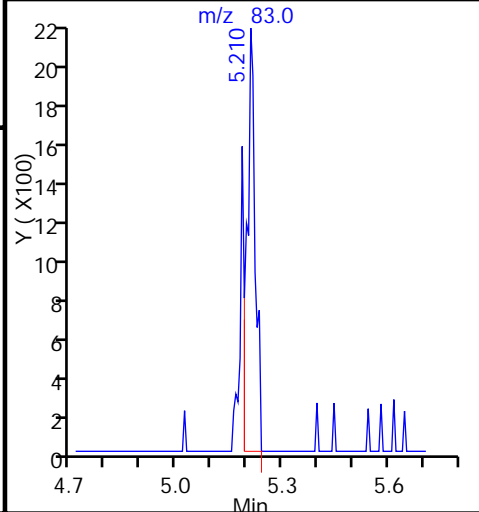
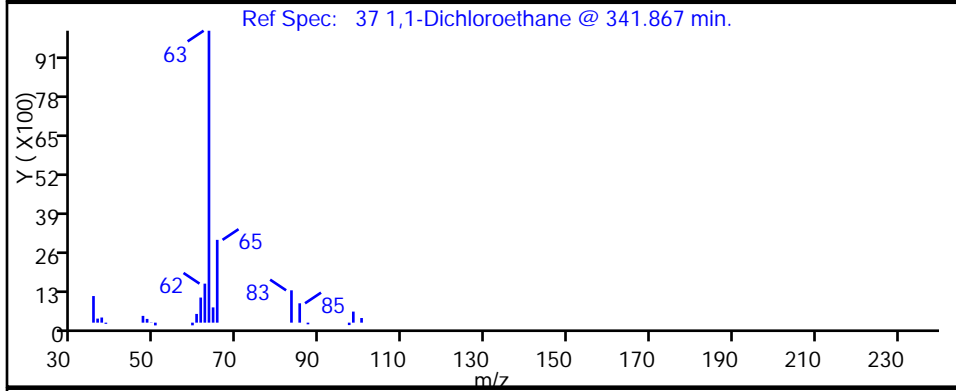
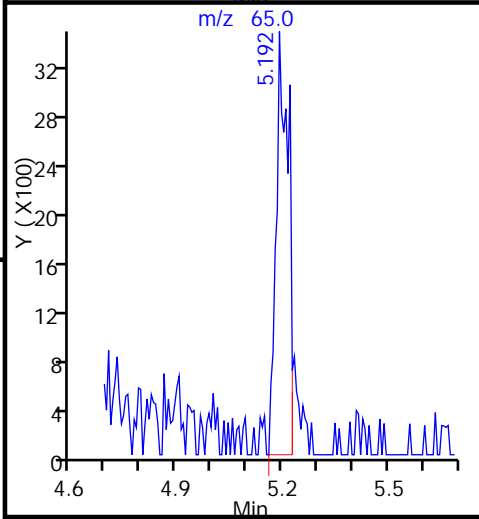
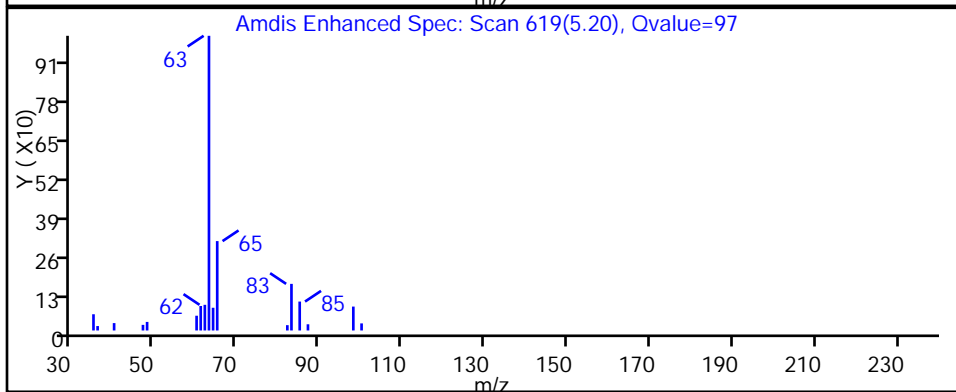
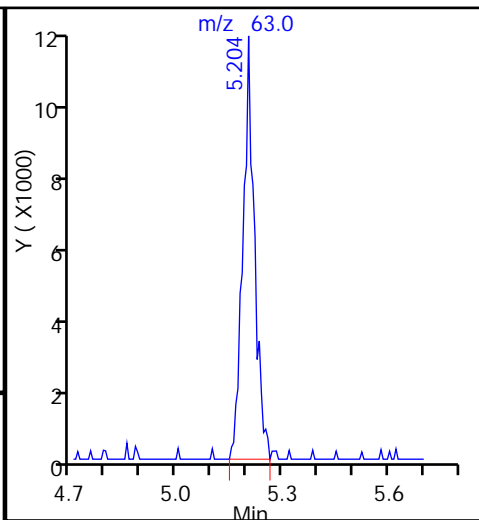
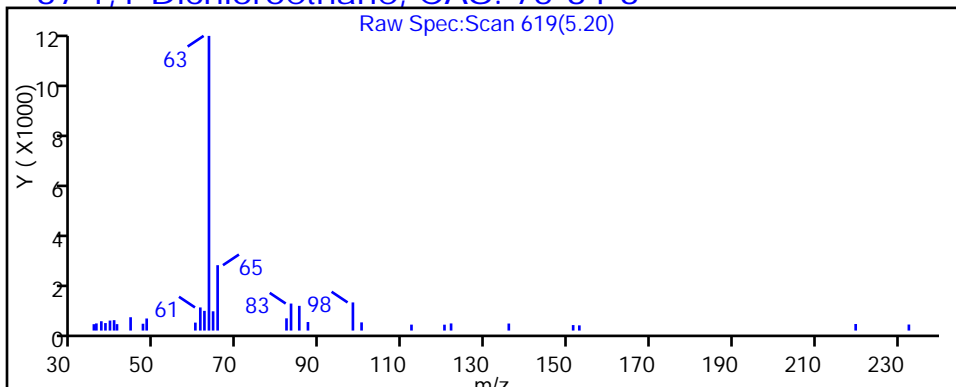
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

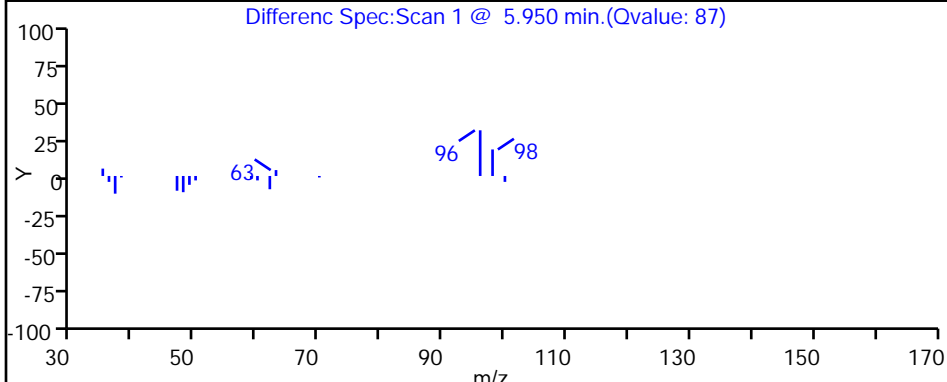
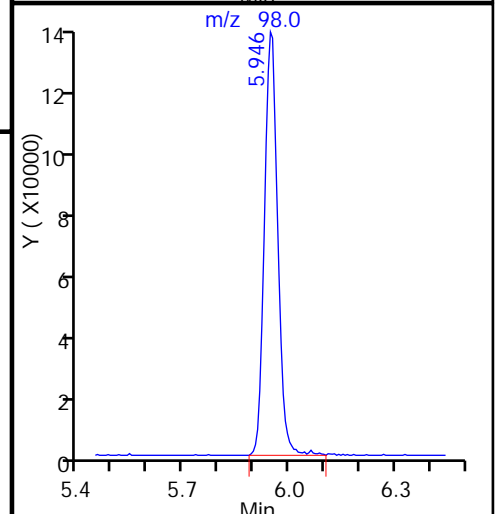
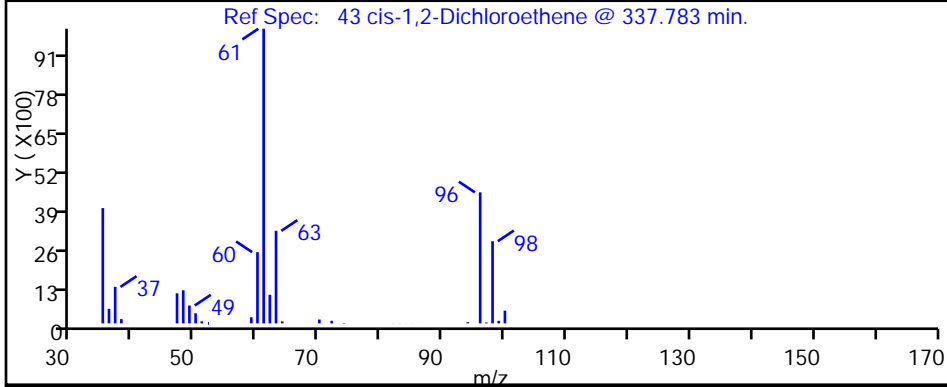
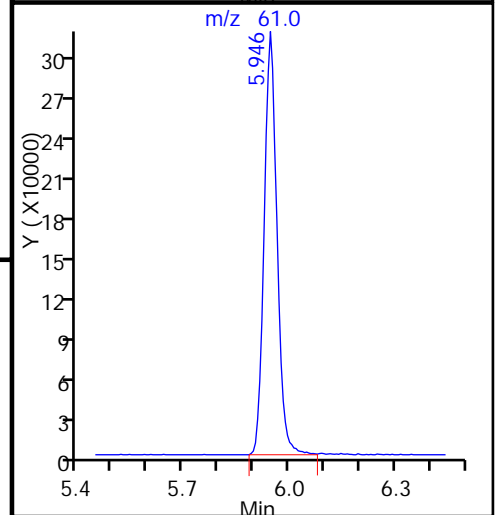
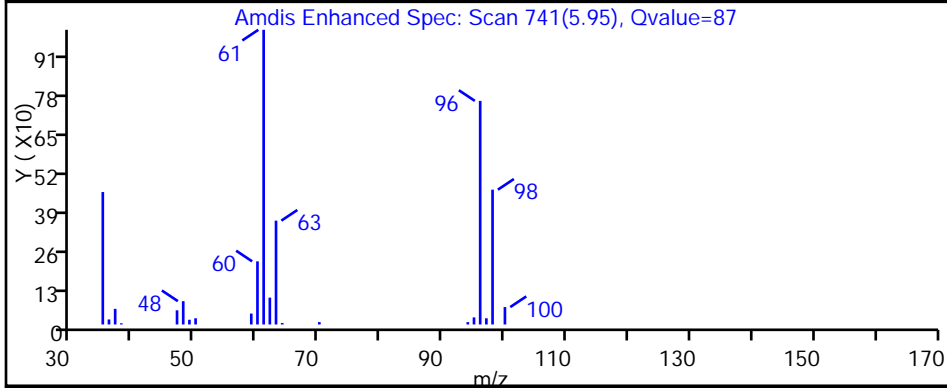
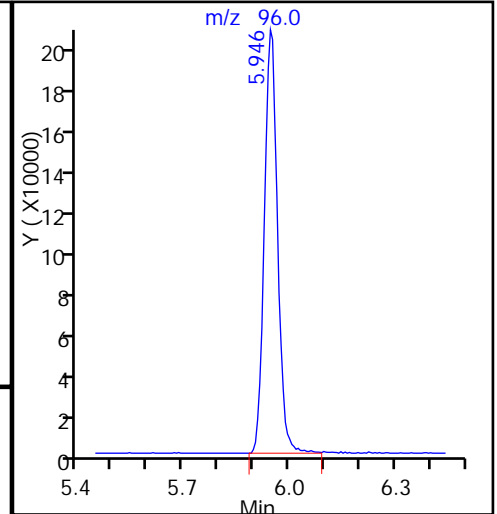
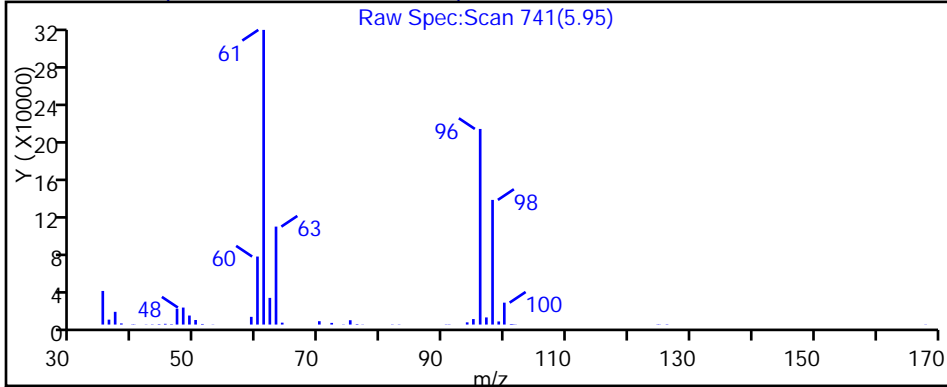
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

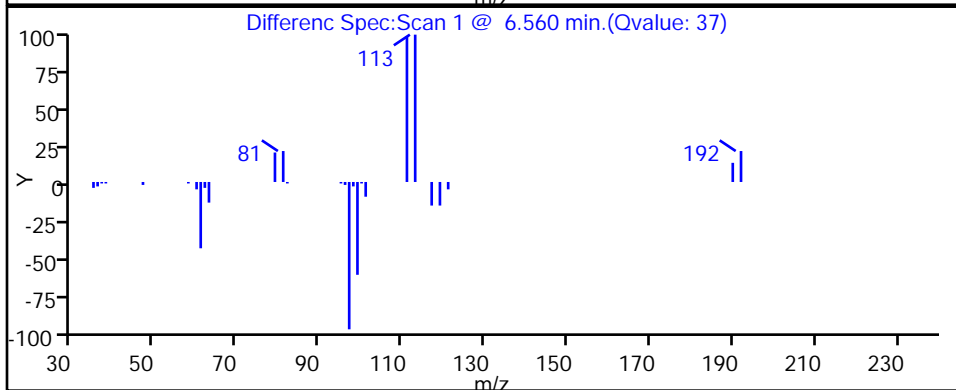
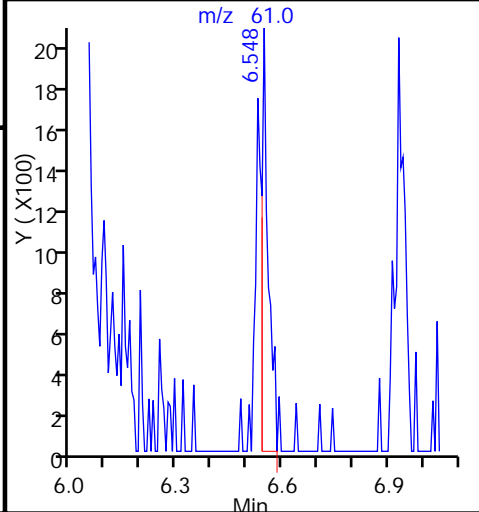
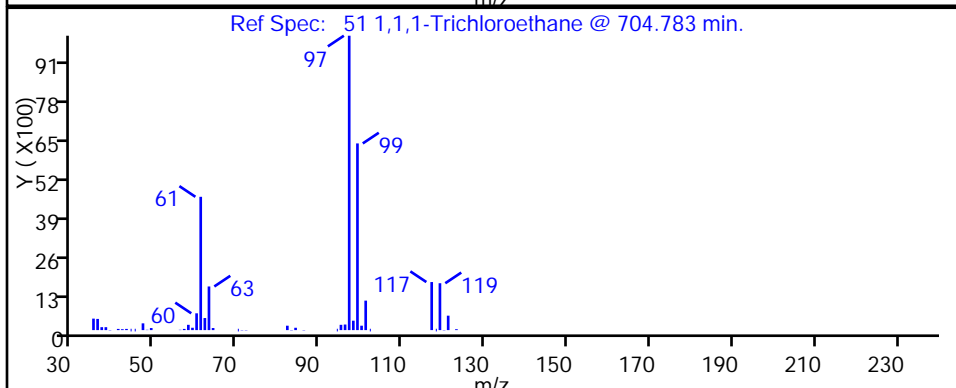
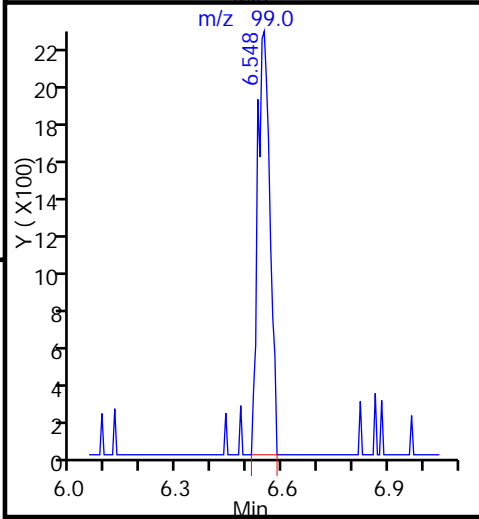
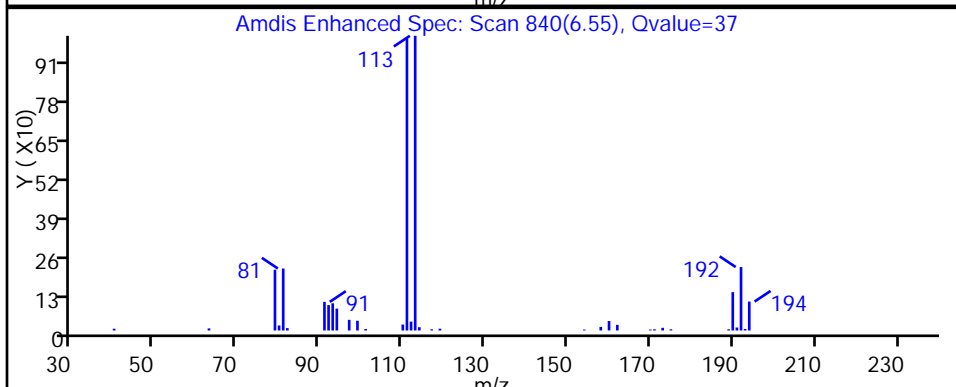
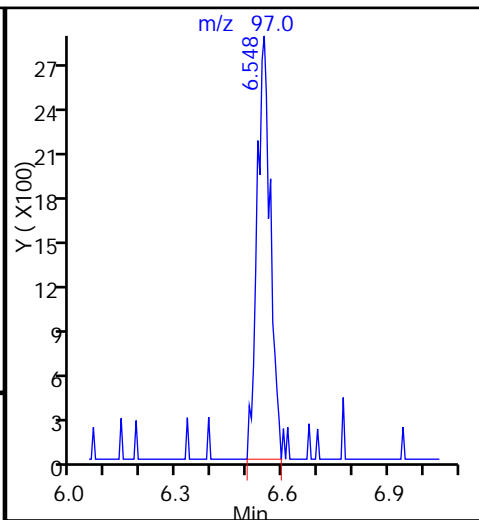
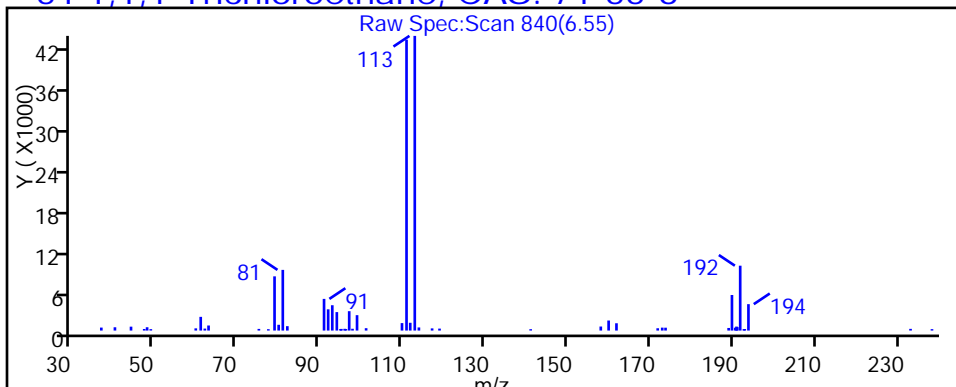
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D

Injection Date: 29-Sep-2015 19:57:30

Instrument ID: CHHP6

Lims ID: 180-47984-B-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 21 Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

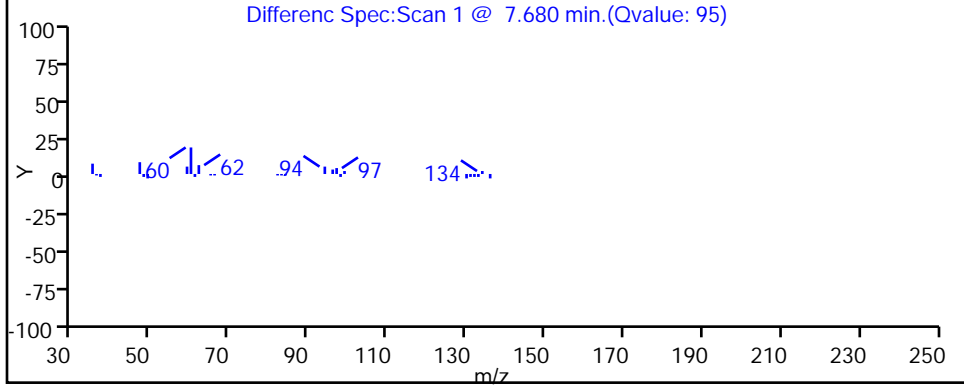
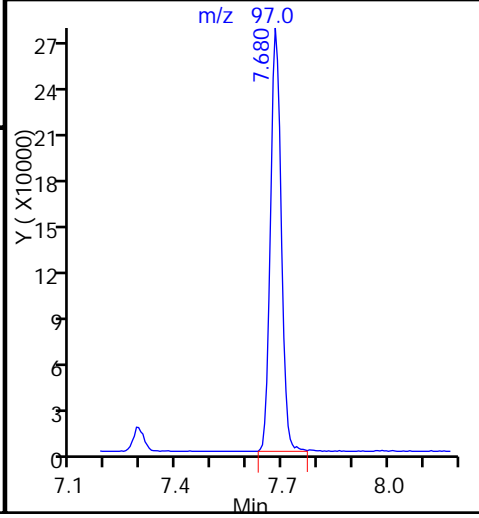
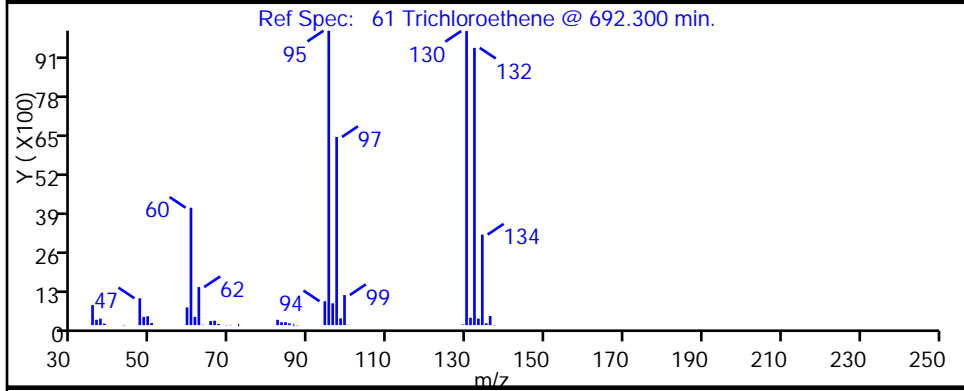
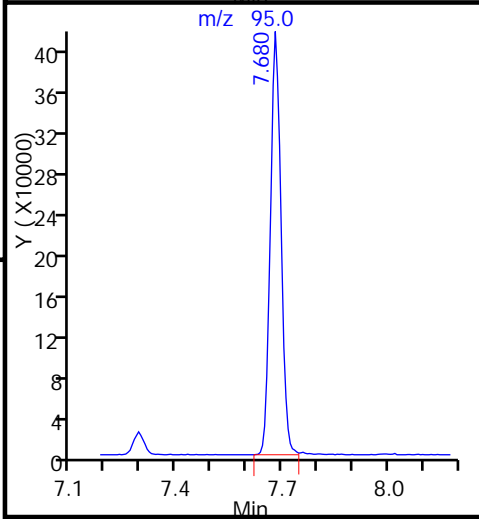
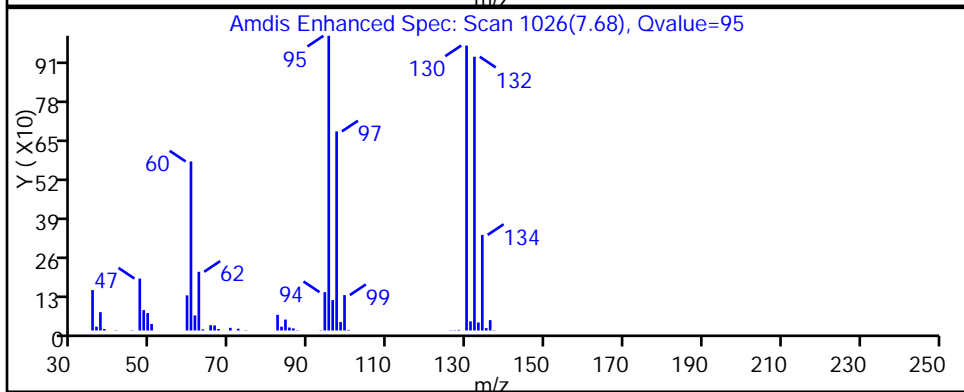
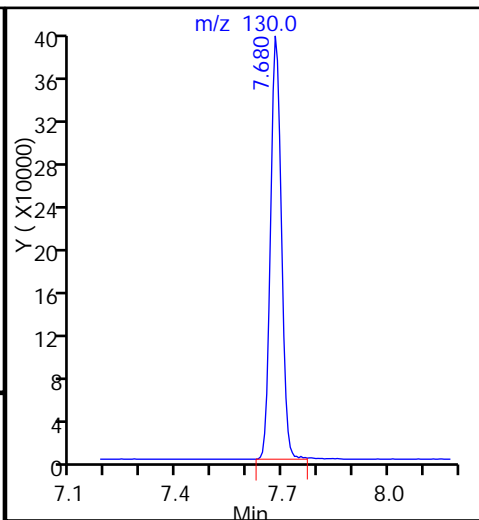
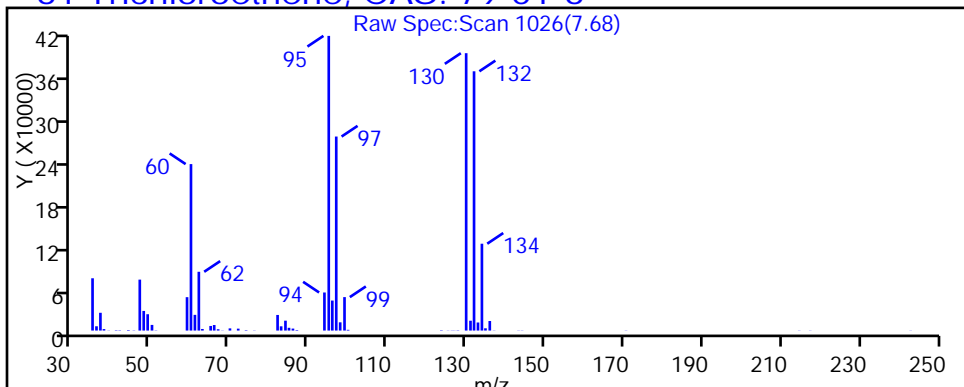
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

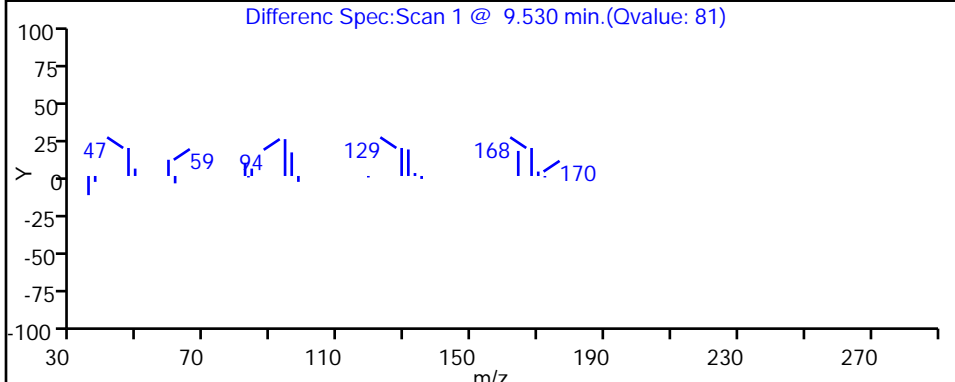
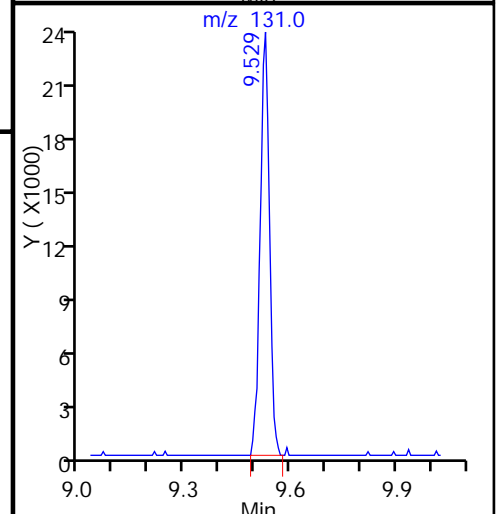
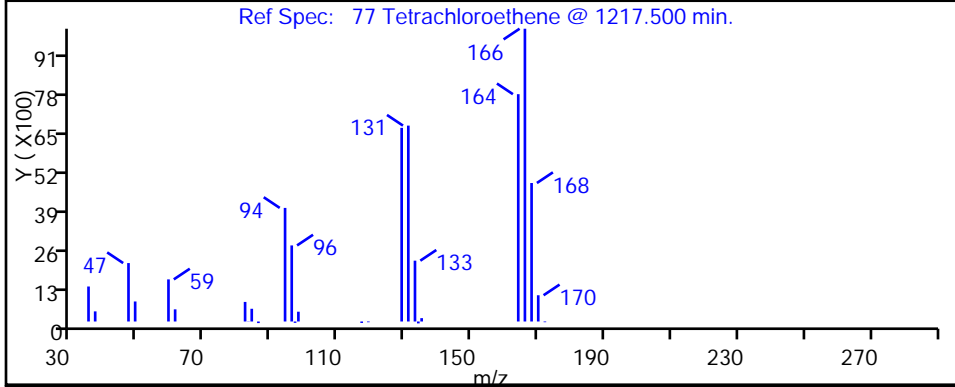
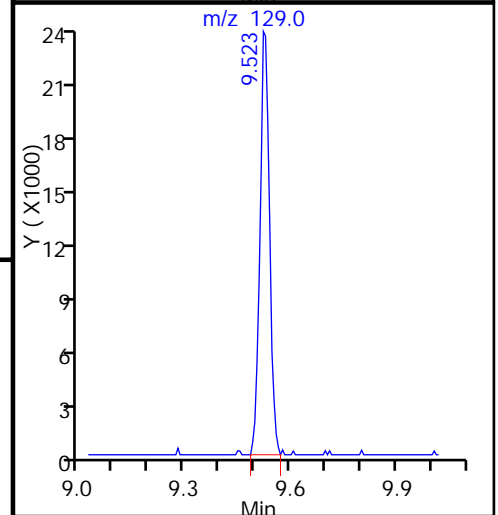
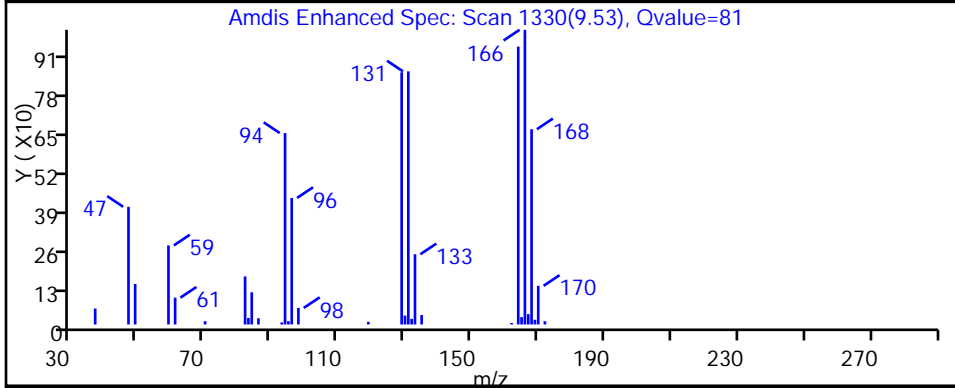
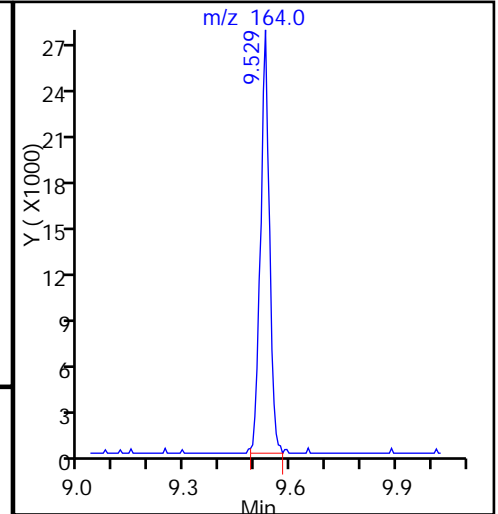
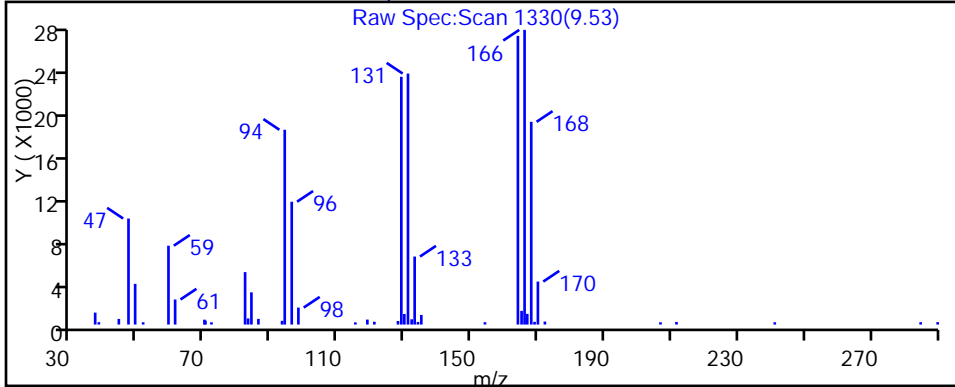
61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929022.D  
Injection Date: 29-Sep-2015 19:57:30 Instrument ID: CHHP6  
Lims ID: 180-47984-B-3 Lab Sample ID: 180-47984-3  
Client ID: HD-MW-32D-0/1-0  
Operator ID: 001562 ALS Bottle#: 21 Worklist Smp#: 22  
Purge Vol: 5.000 mL Dil. Factor: 10.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-32D-0/1-0 DL Lab Sample ID: 180-47984-3 DL  
 Matrix: Water Lab File ID: 60930013.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 12:57  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 16:14  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 50  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		50	14
75-01-4	Vinyl chloride	25	J	50	11
74-83-9	Bromomethane	ND		50	16
75-00-3	Chloroethane	ND		50	11
75-35-4	1,1-Dichloroethene	41	J	50	15
67-64-1	Acetone	ND		250	130
75-15-0	Carbon disulfide	ND		50	11
75-09-2	Methylene Chloride	ND		50	6.3
156-60-5	trans-1,2-Dichloroethene	ND		50	8.5
1634-04-4	Methyl tert-butyl ether	ND		50	9.2
75-34-3	1,1-Dichloroethane	ND		50	5.8
156-59-2	cis-1,2-Dichloroethene	360		50	12
74-97-5	Bromochloromethane	ND		50	9.0
78-93-3	2-Butanone (MEK)	ND		250	27
67-66-3	Chloroform	ND		50	8.5
71-55-6	1,1,1-Trichloroethane	ND		50	14
56-23-5	Carbon tetrachloride	ND		50	6.8
71-43-2	Benzene	ND		50	5.3
107-06-2	1,2-Dichloroethane	ND		50	11
79-01-6	Trichloroethene	780		50	7.2
78-87-5	1,2-Dichloropropane	ND		50	4.7
75-27-4	Bromodichloromethane	ND		50	6.5
10061-01-5	cis-1,3-Dichloropropene	ND		50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	26
108-88-3	Toluene	ND		50	7.5
10061-02-6	trans-1,3-Dichloropropene	ND		50	7.4
79-00-5	1,1,2-Trichloroethane	ND		50	10
127-18-4	Tetrachloroethene	58		50	7.4
591-78-6	2-Hexanone	ND		250	8.0
124-48-1	Dibromochloromethane	ND		50	6.8
106-93-4	1,2-Dibromoethane (EDB)	ND		50	9.0
108-90-7	Chlorobenzene	ND		50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	14
100-41-4	Ethylbenzene	ND		50	11
1330-20-7	Xylenes, Total	ND		150	24
100-42-5	Styrene	ND		50	4.8

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-32D-0/1-0 DL Lab Sample ID: 180-47984-3 DL  
 Matrix: Water Lab File ID: 60930013.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 12:57  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 16:14  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 50  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: DB-624 ID: 0.18 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		50	9.6
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	10
107-13-1	Acrylonitrile	ND		1000	27
123-91-1	1,4-Dioxane	ND		10000	1700

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D  
 Lims ID: 180-47984-A-3 Lab Sample ID: 180-47984-3  
 Client ID: HD-MW-32D-0/1-0  
 Sample Type: Client  
 Inject. Date: 30-Sep-2015 16:14:30 ALS Bottle#: 13 Worklist Smp#: 13  
 Purge Vol: 5.000 mL Dil. Factor: 50.0000  
 Sample Info: 180-47984-A-3, 50x  
 Misc. Info.: 180-0008760-013  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 01-Oct-2015 09:17:28 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 01-Oct-2015 09:17:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.239	4.230	0.009	86	173793	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.290	-0.004	98	484149	50.0	
* 3 Chlorobenzene-d5	119	10.401	10.398	0.003	91	108683	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.747	0.002	97	179835	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.557	-0.001	93	112089	50.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.928	0.006	70	181696	50.5	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.942	-0.001	94	450509	52.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.588	-0.001	83	171617	45.1	
12 Chloromethane	50		1.763				ND	
13 Vinyl chloride	62	1.896	1.897	-0.001	66	7868	2.53	
15 Bromomethane	94		2.238				ND	
16 Chloroethane	64		2.378				ND	
22 1,1-Dichloroethene	96	3.363	3.333	0.030	96	9893	4.06	
24 Acetone	43		3.430				ND	
26 Carbon disulfide	76		3.631				ND	
31 Methylene Chloride	84		4.124				ND	
33 Acrylonitrile	53		4.501				ND	
34 trans-1,2-Dichloroethene	96		4.562				ND	
35 Methyl tert-butyl ether	73		4.568				ND	
37 1,1-Dichloroethane	63		5.194				ND	
43 cis-1,2-Dichloroethene	96	5.942	5.936	0.006	83	109775	35.9	
44 2-Butanone (MEK)	43		5.943				ND	
48 Chlorobromomethane	128		6.228				ND	
50 Chloroform	83		6.374				ND	
51 1,1,1-Trichloroethane	97	6.538	6.539	-0.001	35	1976	0.5351	
53 Carbon tetrachloride	117		6.709				ND	
56 Benzene	78		6.940				ND	
57 1,2-Dichloroethane	62		7.013				ND	
61 Trichloroethene	130	7.682	7.676	0.006	96	183466	78.0	
64 1,2-Dichloropropane	63		7.950				ND	
65 1,4-Dioxane	88		8.029				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.230				ND	
71 cis-1,3-Dichloropropene	75		8.674				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.826				ND	
73 Toluene	91		9.009				ND	
74 trans-1,3-Dichloropropene	75		9.252				ND	
76 1,1,2-Trichloroethane	97		9.453				ND	
77 Tetrachloroethene	164	9.531	9.526	0.005	93	11141	5.82	
79 2-Hexanone	43		9.660				ND	
81 Chlorodibromomethane	129		9.824				ND	
82 Ethylene Dibromide	107		9.939				ND	
84 Chlorobenzene	112		10.426				ND	
86 1,1,1,2-Tetrachloroethane	131		10.523				ND	
87 Ethylbenzene	106		10.529				ND	
88 m-Xylene & p-Xylene	106		10.657				ND	
89 o-Xylene	106		11.040				ND	
90 Styrene	104		11.065				ND	
91 Bromoform	173		11.247				ND	
96 1,1,2,2-Tetrachloroethane	83		11.716				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D

Injection Date: 30-Sep-2015 16:14:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-A-3

Lab Sample ID: 180-47984-3

Worklist Smp#: 13

Client ID: HD-MW-32D-0/1-0

Purge Vol: 5.000 mL

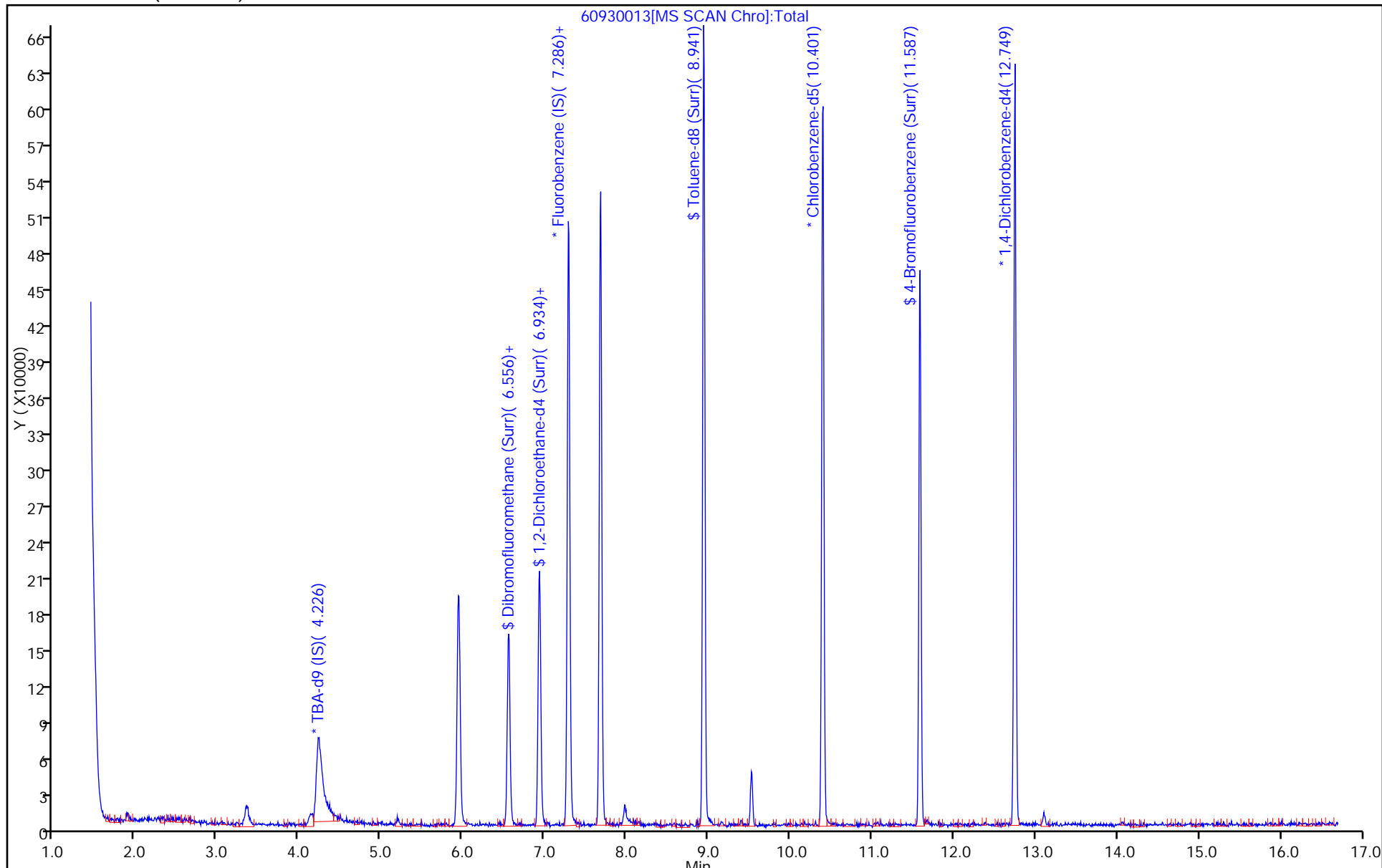
Dil. Factor: 50.0000

ALS Bottle#: 13

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D

Injection Date: 30-Sep-2015 16:14:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 13 Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

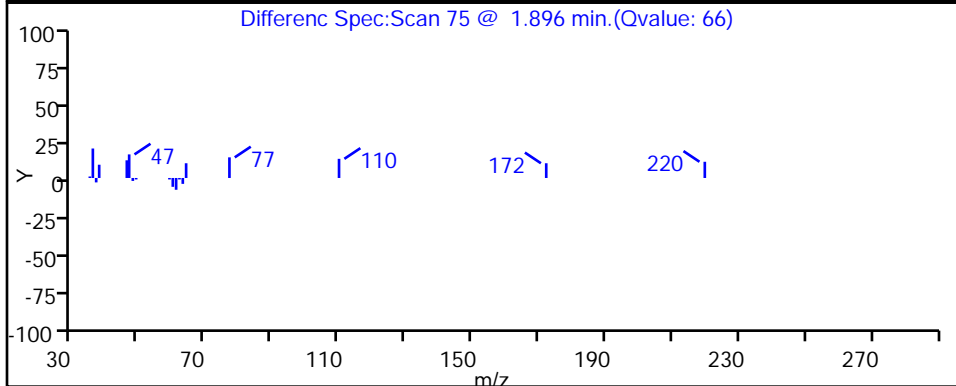
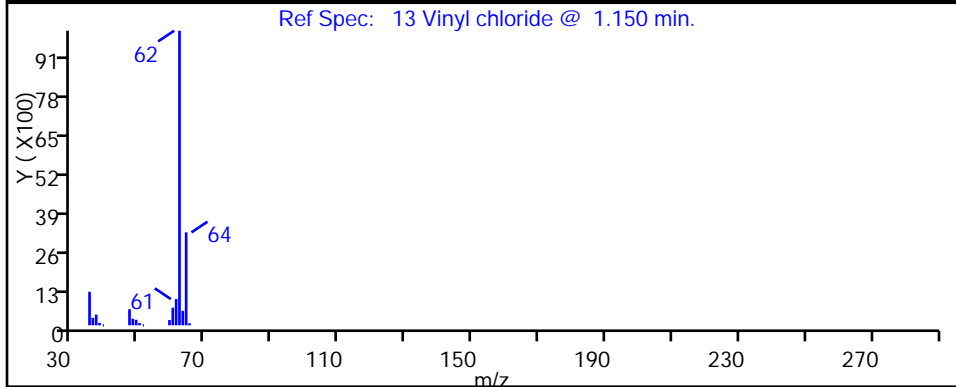
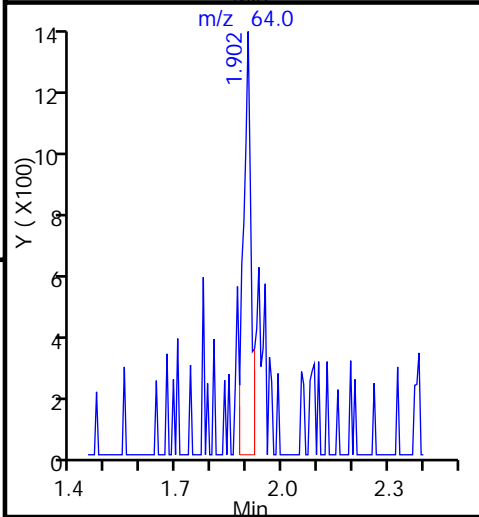
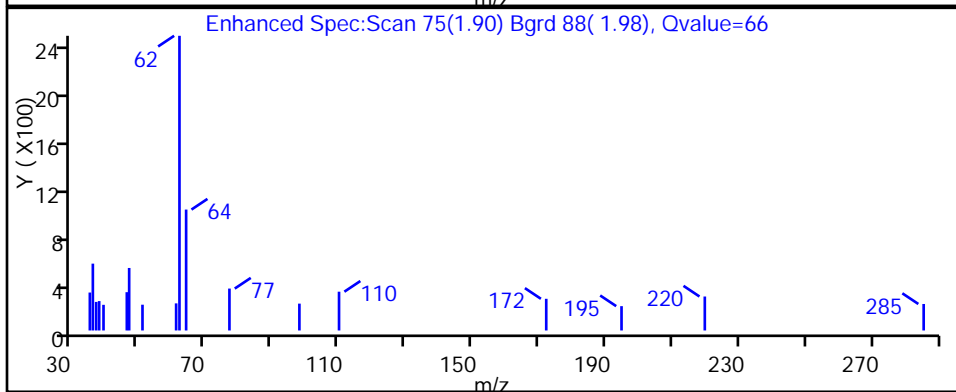
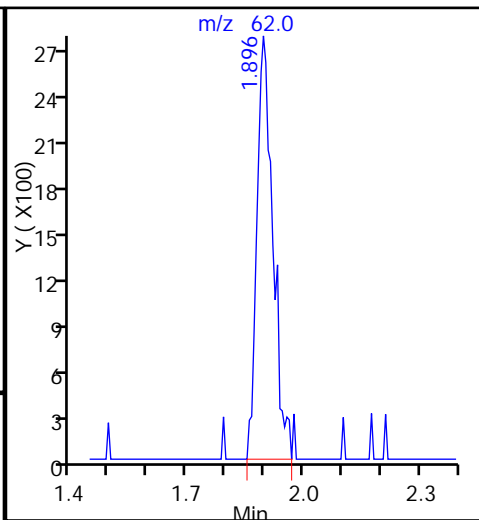
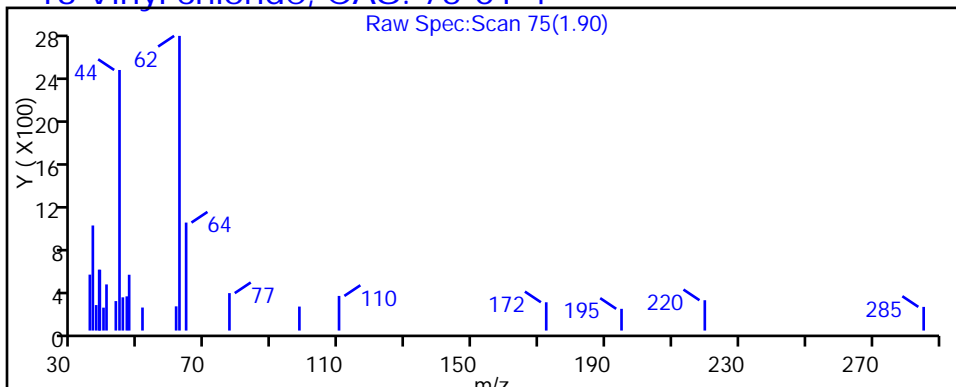
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D

Injection Date: 30-Sep-2015 16:14:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

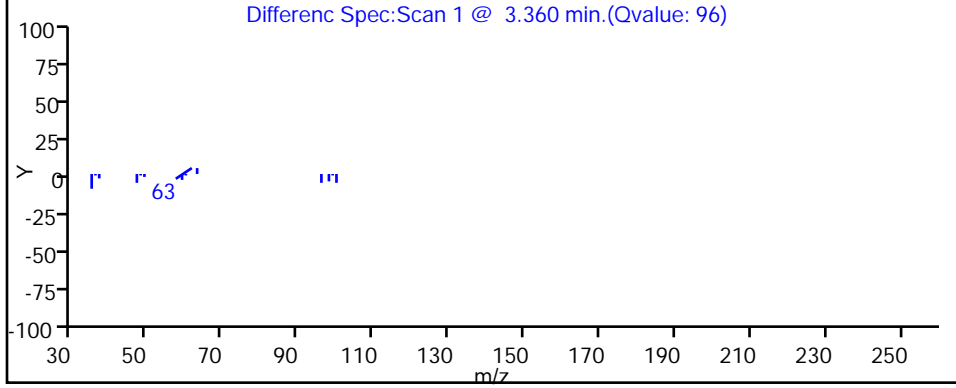
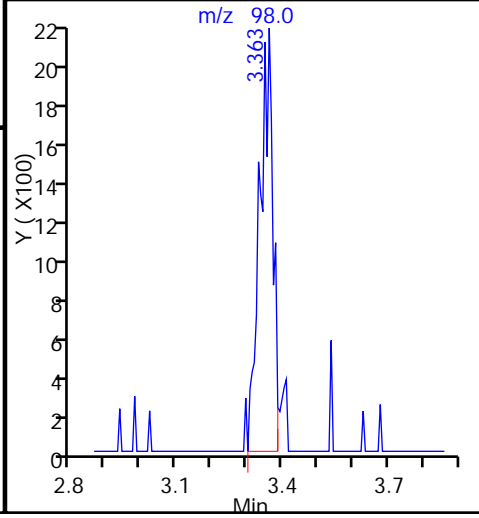
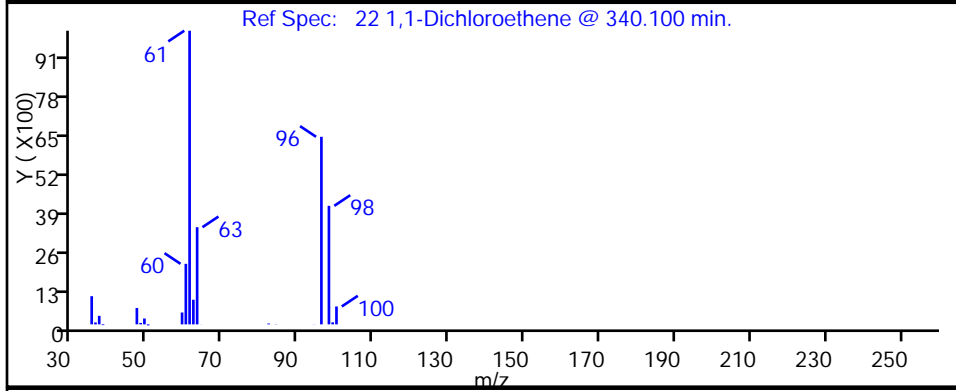
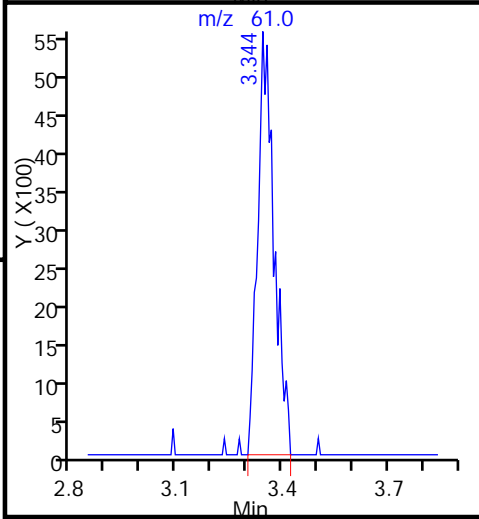
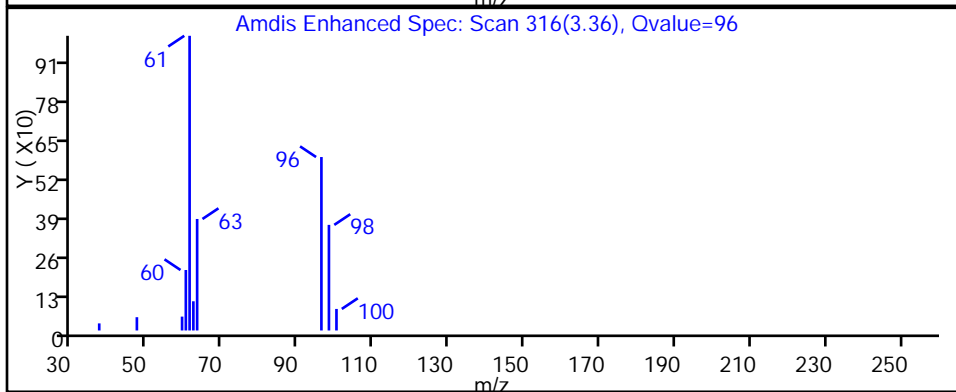
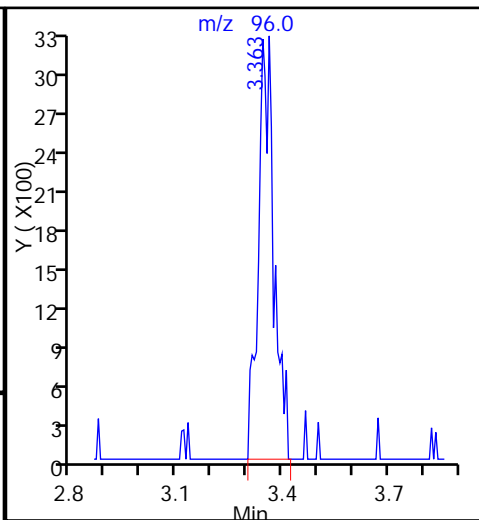
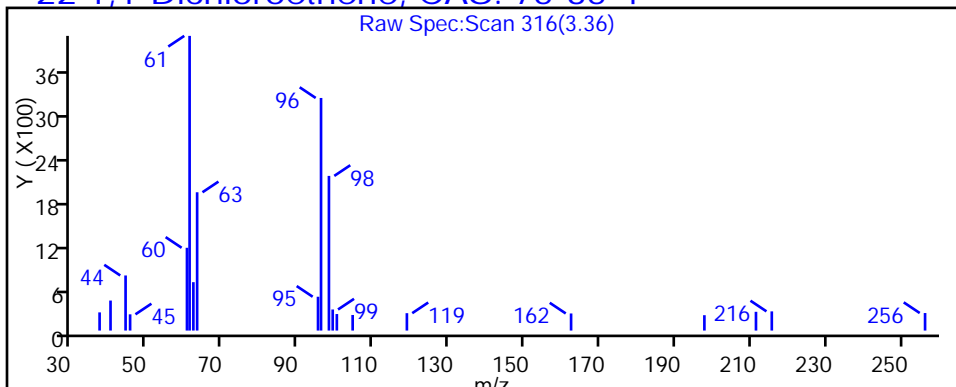
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

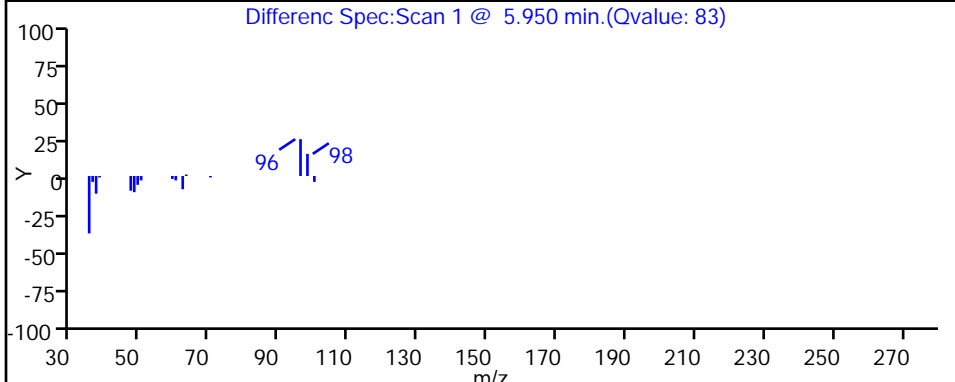
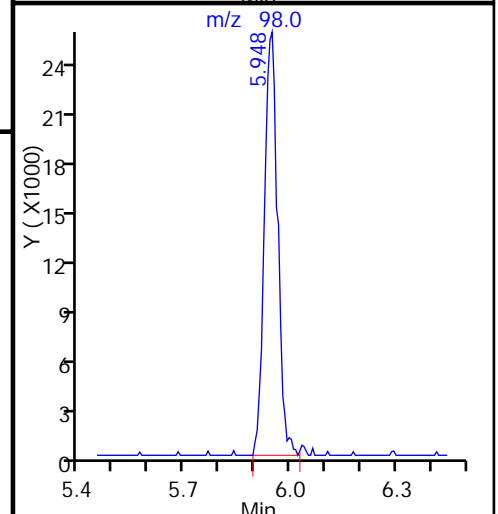
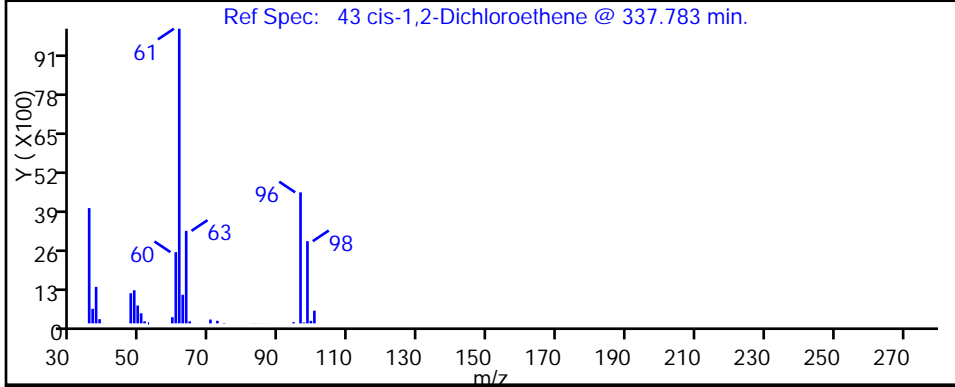
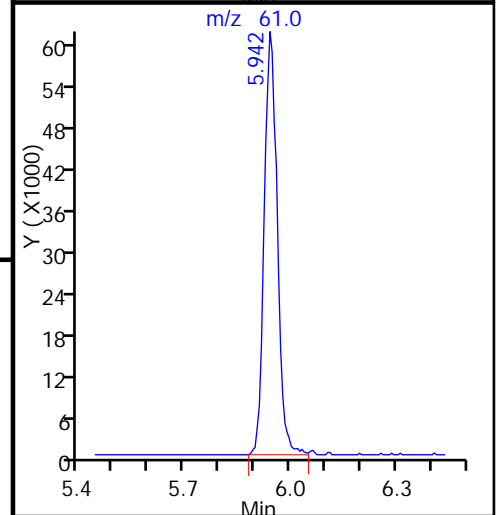
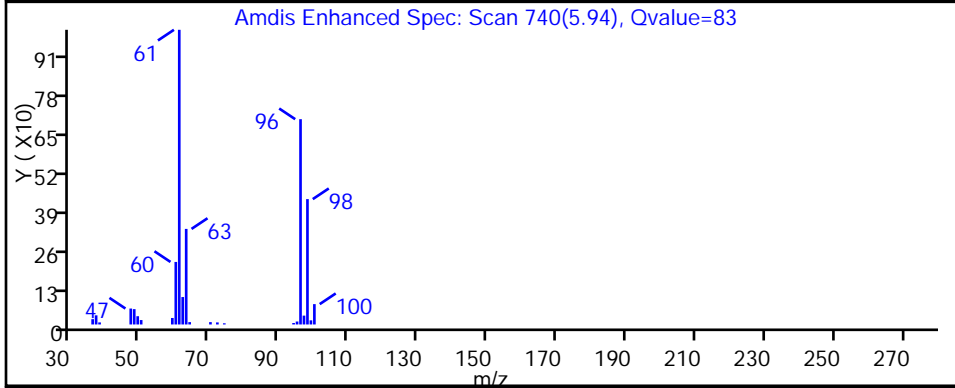
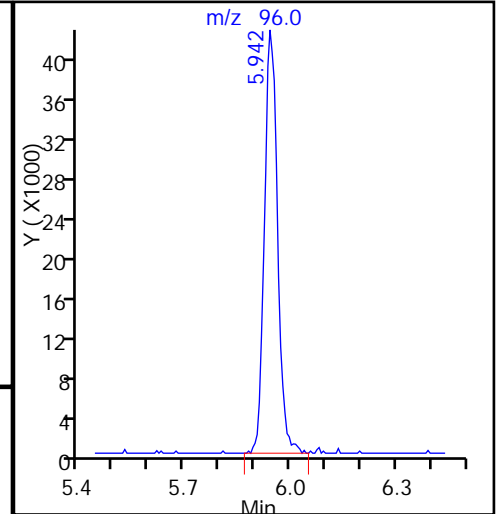
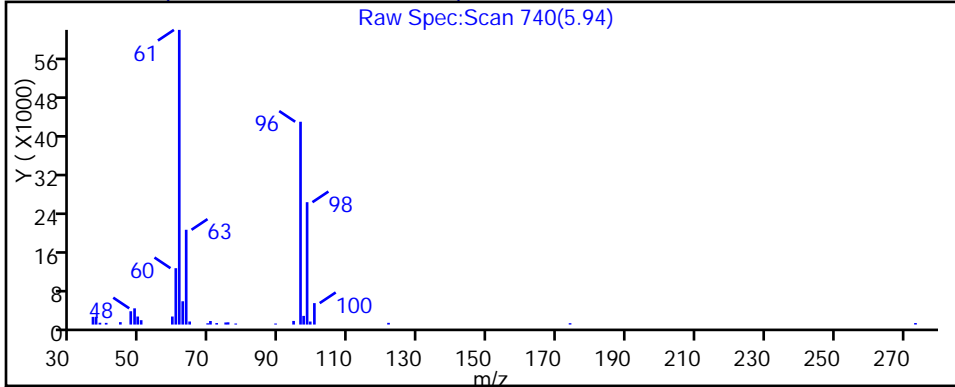
22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D  
Injection Date: 30-Sep-2015 16:14:30 Instrument ID: CHHP6  
Lims ID: 180-47984-A-3 Lab Sample ID: 180-47984-3  
Client ID: HD-MW-32D-0/1-0  
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13  
Purge Vol: 5.000 mL Dil. Factor: 50.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

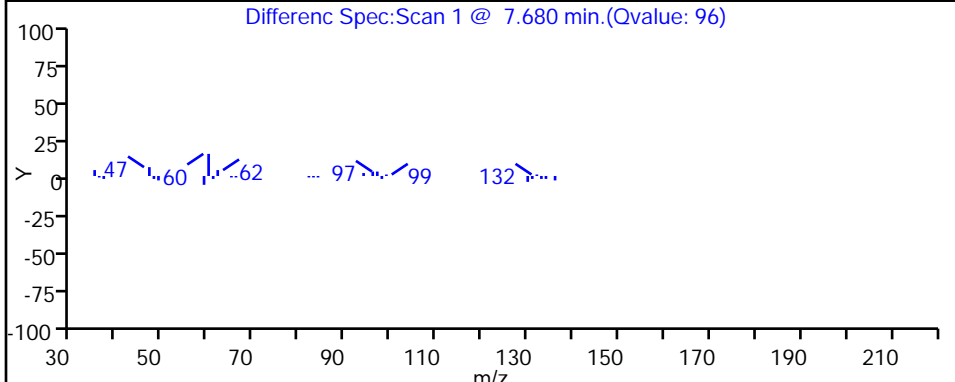
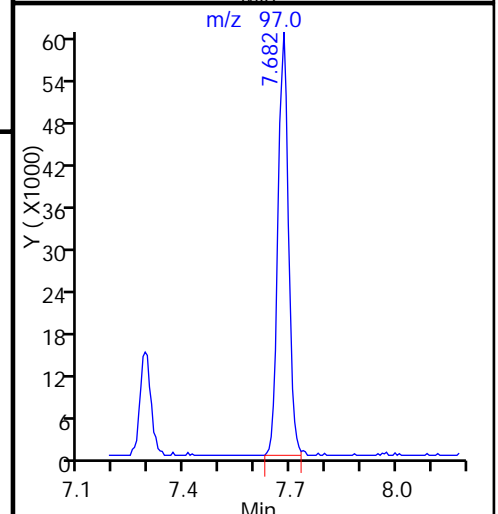
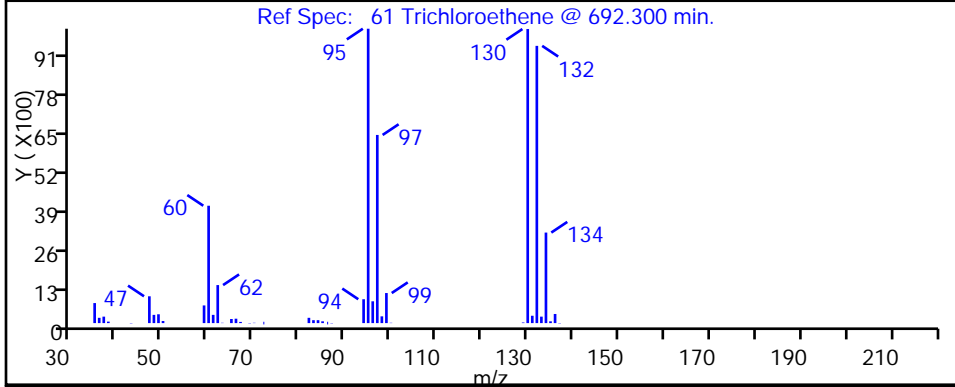
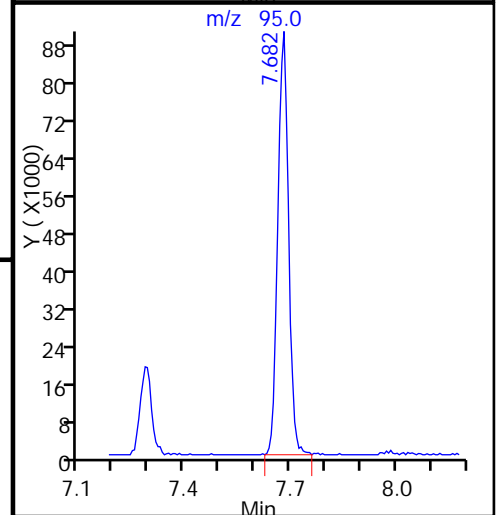
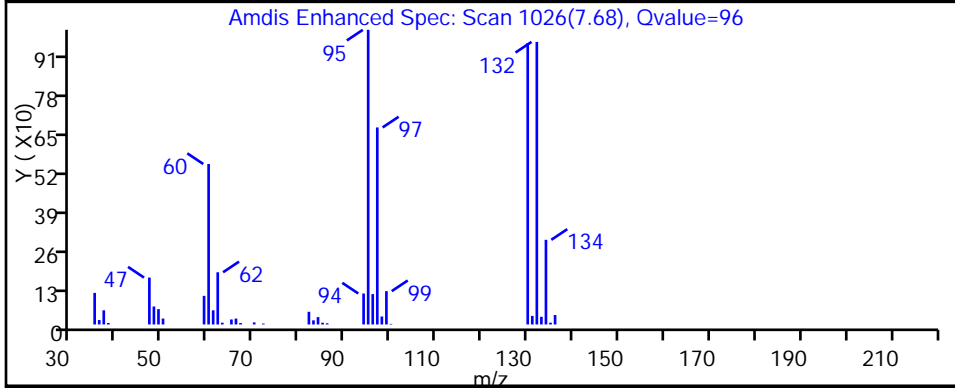
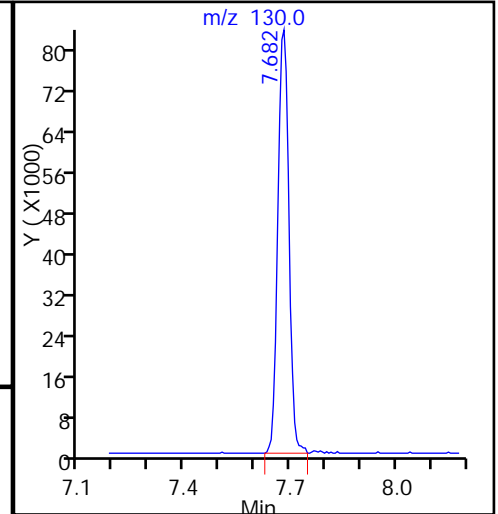
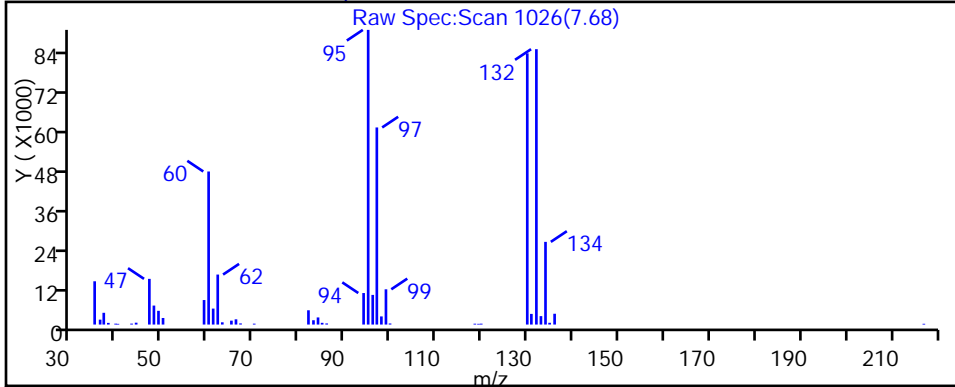
43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D  
Injection Date: 30-Sep-2015 16:14:30 Instrument ID: CHHP6  
Lims ID: 180-47984-A-3 Lab Sample ID: 180-47984-3  
Client ID: HD-MW-32D-0/1-0  
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 13  
Purge Vol: 5.000 mL Dil. Factor: 50.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930013.D

Injection Date: 30-Sep-2015 16:14:30

Instrument ID: CHHP6

Lims ID: 180-47984-A-3

Lab Sample ID: 180-47984-3

Client ID: HD-MW-32D-0/1-0

Operator ID: 001562

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 5.000 mL

Dil. Factor: 50.0000

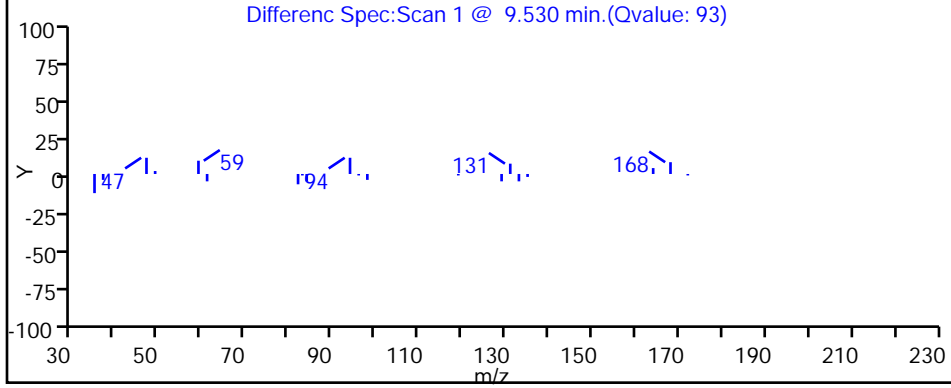
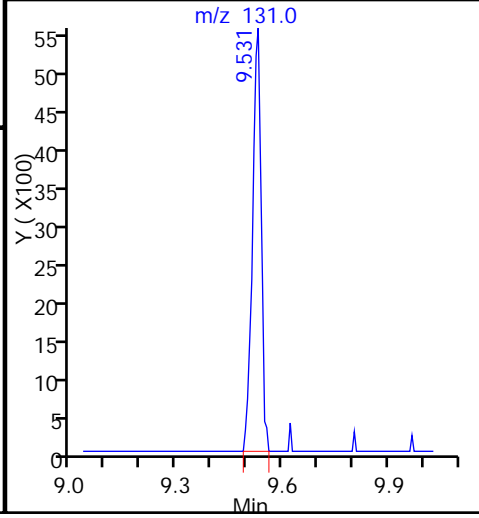
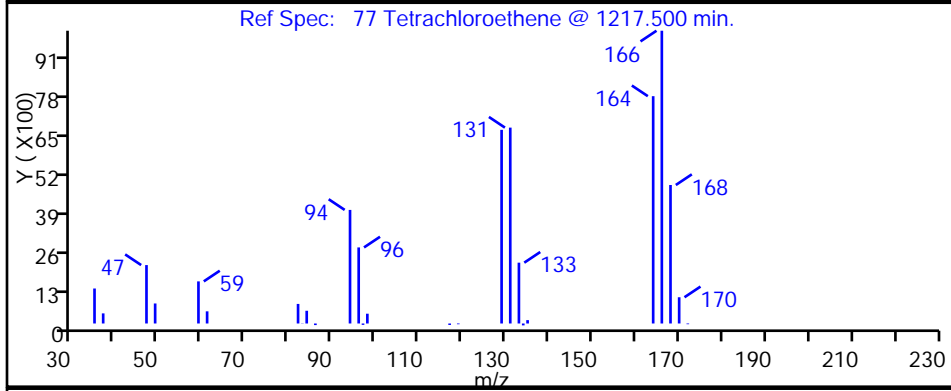
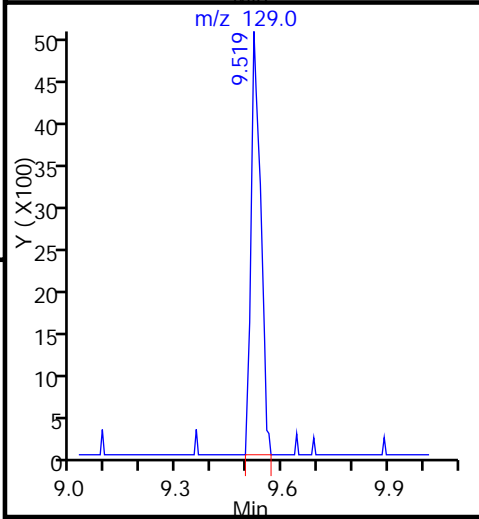
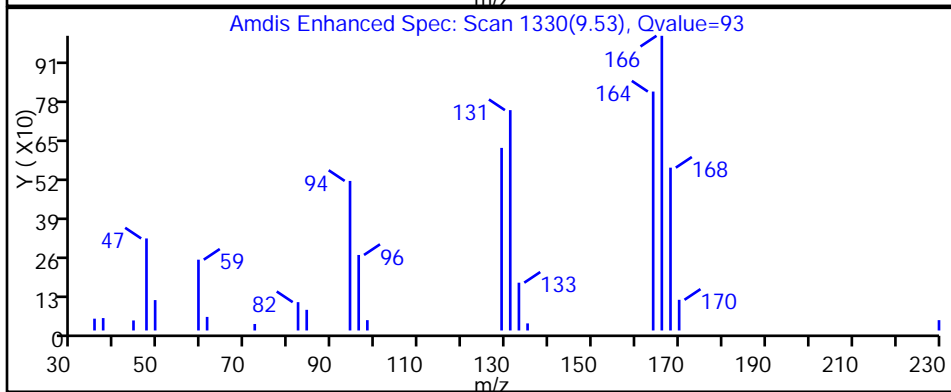
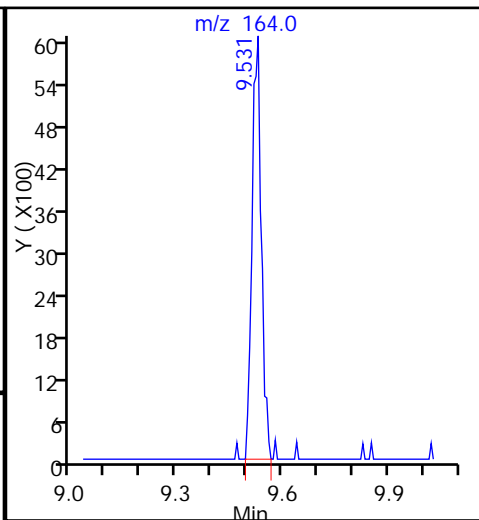
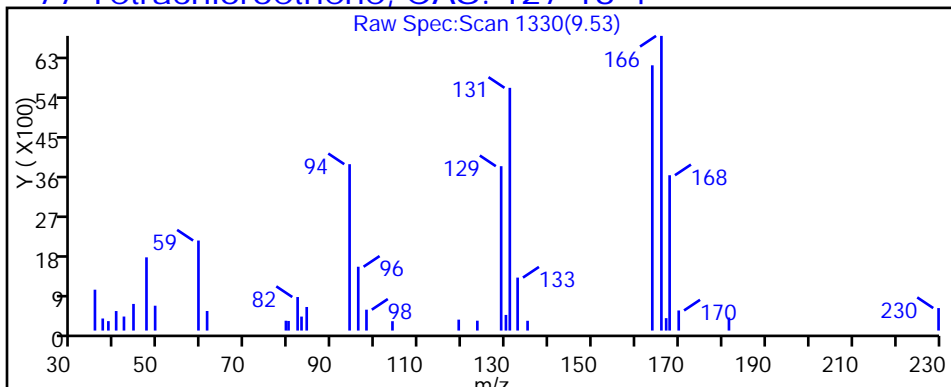
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-32S-0/1-0 Lab Sample ID: 180-47984-4  
 Matrix: Water Lab File ID: 60929024.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 14:18  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 20:47  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		10	2.8
75-01-4	Vinyl chloride	ND		10	2.3
74-83-9	Bromomethane	ND	^c	10	3.1
75-00-3	Chloroethane	ND		10	2.1
75-35-4	1,1-Dichloroethene	41		10	3.0
67-64-1	Acetone	ND		50	25
75-15-0	Carbon disulfide	ND		10	2.1
75-09-2	Methylene Chloride	ND		10	1.3
156-60-5	trans-1,2-Dichloroethene	ND		10	1.7
1634-04-4	Methyl tert-butyl ether	ND		10	1.8
75-34-3	1,1-Dichloroethane	55		10	1.2
156-59-2	cis-1,2-Dichloroethene	240		10	2.4
74-97-5	Bromochloromethane	ND		10	1.8
78-93-3	2-Butanone (MEK)	ND		50	5.5
67-66-3	Chloroform	ND		10	1.7
71-55-6	1,1,1-Trichloroethane	220		10	2.9
56-23-5	Carbon tetrachloride	ND		10	1.4
71-43-2	Benzene	ND		10	1.1
107-06-2	1,2-Dichloroethane	ND		10	2.1
79-01-6	Trichloroethene	210		10	1.4
78-87-5	1,2-Dichloropropane	ND		10	0.95
75-27-4	Bromodichloromethane	ND		10	1.3
10061-01-5	cis-1,3-Dichloropropene	ND		10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	5.3
108-88-3	Toluene	ND		10	1.5
10061-02-6	trans-1,3-Dichloropropene	ND		10	1.5
79-00-5	1,1,2-Trichloroethane	ND		10	2.0
127-18-4	Tetrachloroethene	120		10	1.5
591-78-6	2-Hexanone	ND		50	1.6
124-48-1	Dibromochloromethane	ND		10	1.4
106-93-4	1,2-Dibromoethane (EDB)	ND		10	1.8
108-90-7	Chlorobenzene	ND		10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	ND		10	2.8
100-41-4	Ethylbenzene	ND		10	2.3
1330-20-7	Xylenes, Total	ND		30	4.9
100-42-5	Styrene	ND		10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-32S-0/1-0 Lab Sample ID: 180-47984-4  
 Matrix: Water Lab File ID: 60929024.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 14:18  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 20:47  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	ND		10	2.0
107-13-1	Acrylonitrile	ND		200	5.5
123-91-1	1,4-Dioxane	ND		2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D  
 Lims ID: 180-47984-C-4 Lab Sample ID: 180-47984-4  
 Client ID: HD-MW-32S-0/1-0  
 Sample Type: Client  
 Inject. Date: 29-Sep-2015 20:47:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-47984-C-4, 10x  
 Misc. Info.: 180-0008741-024  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 08:35:48 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond

Date: 30-Sep-2015 08:35:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	90	167107	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	97	460683	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	103824	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	98	165262	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	82	112239	52.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.931	0.006	70	178398	52.1	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	422959	51.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	84	164605	45.3	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.353	3.335	0.018	93	48095	20.7	
24 Acetone	43		3.420				ND	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96	4.576	4.558	0.018	26	1471	0.5497	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.203	5.191	0.012	97	130630	27.3	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	85	351643	120.8	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.365	6.371	-0.006	42	2396	0.5038	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	96	385091	109.6	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.679	0.000	96	240024	107.2	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.528	9.522	0.006	92	112657	61.7	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Worklist Smp#: 24

Client ID: HD-MW-32S-0/1-0

Purge Vol: 5.000 mL

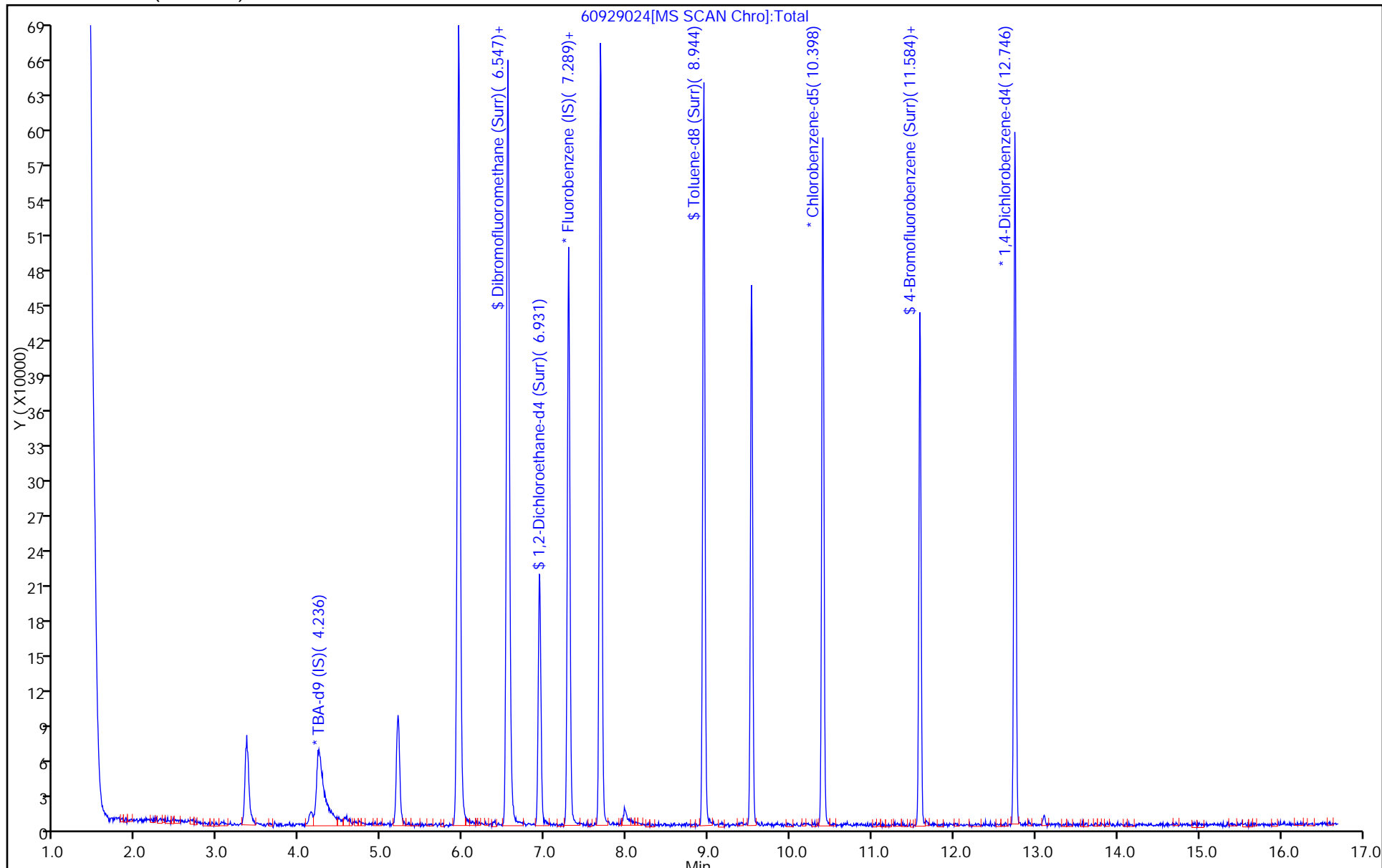
Dil. Factor: 10.0000

ALS Bottle#: 23

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Client ID: HD-MW-32S-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

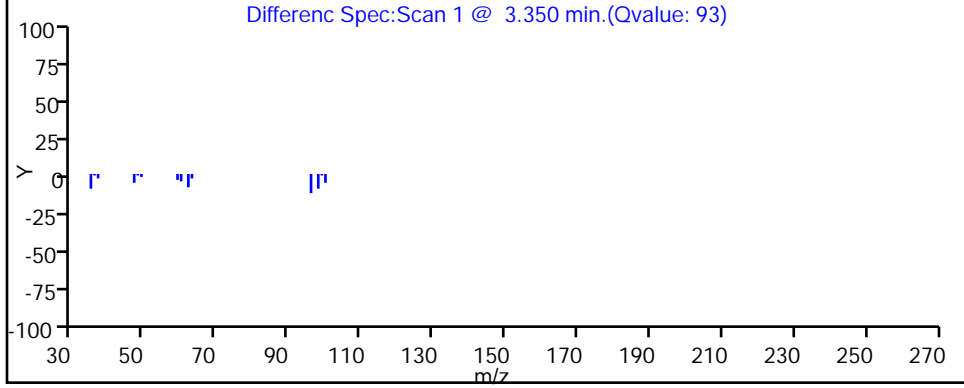
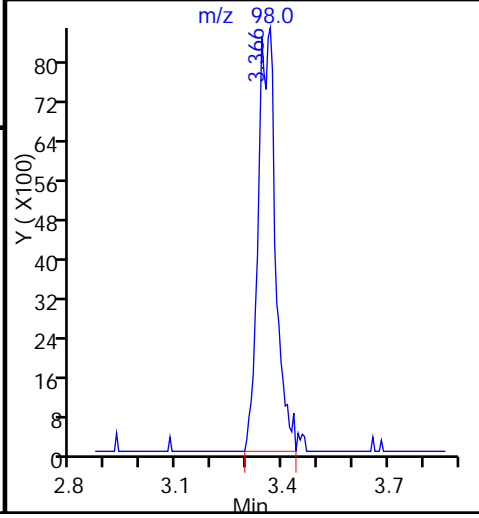
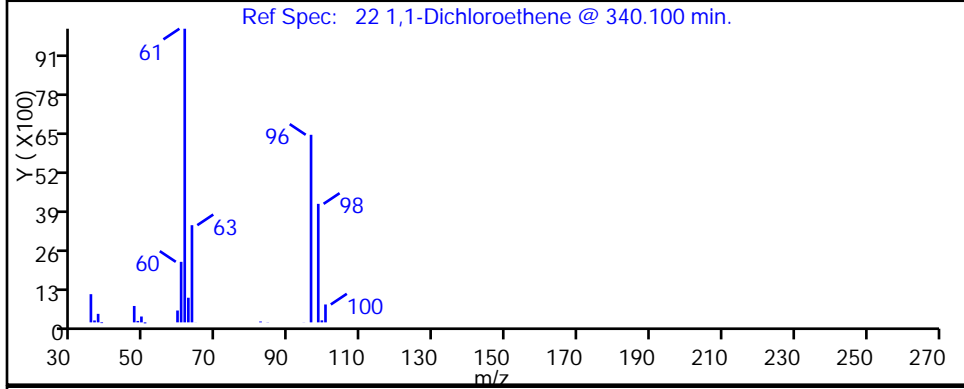
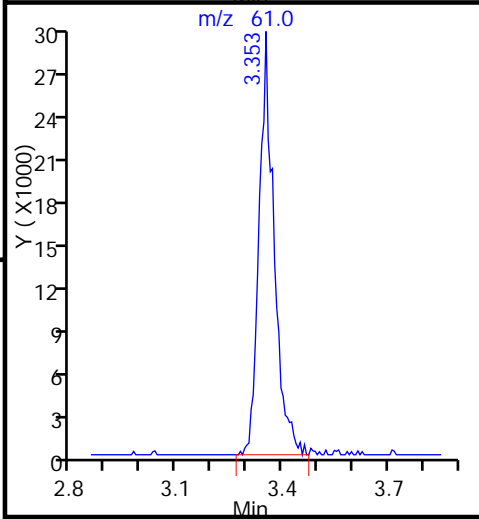
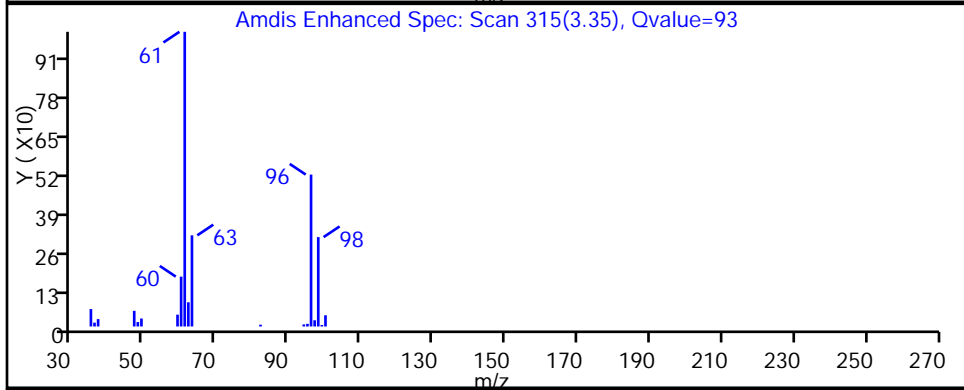
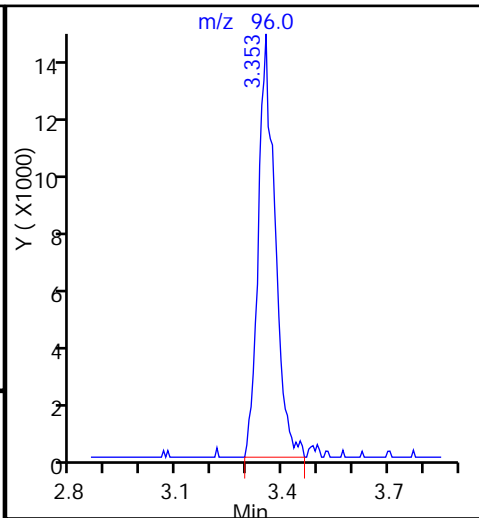
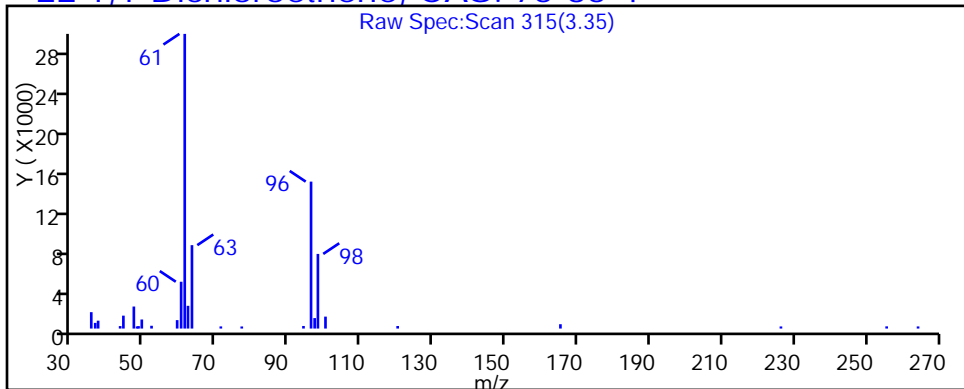
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Client ID: HD-MW-32S-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

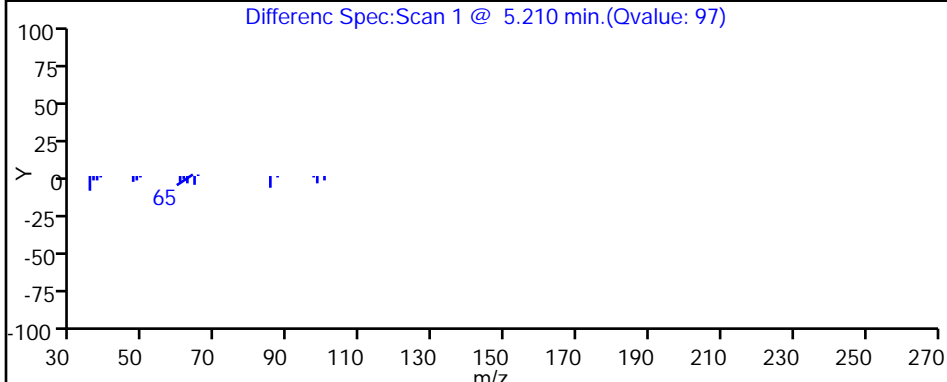
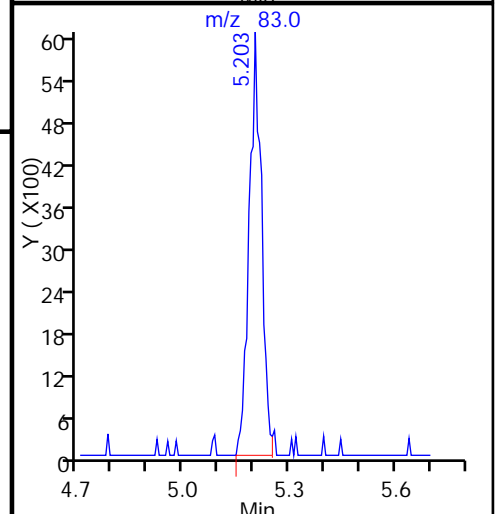
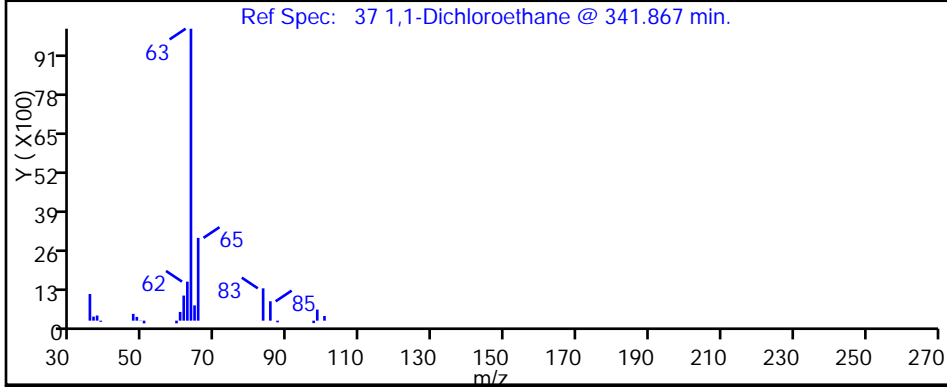
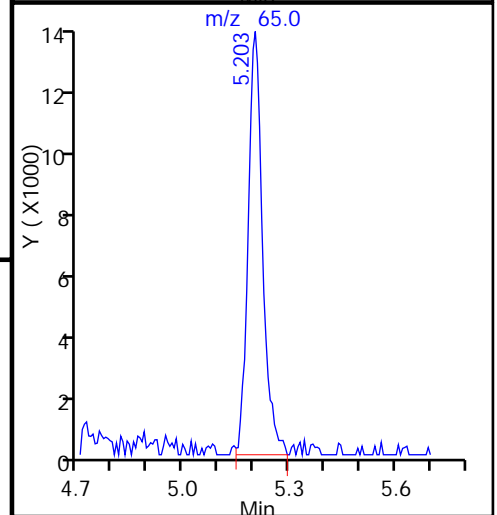
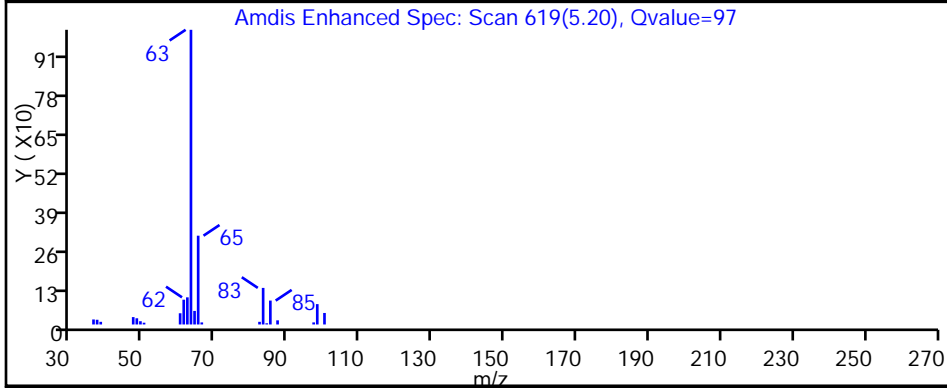
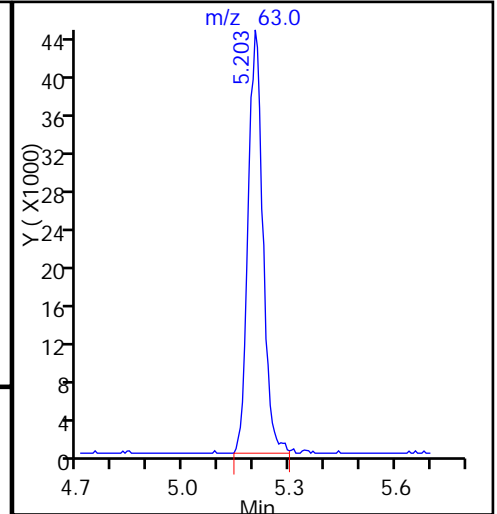
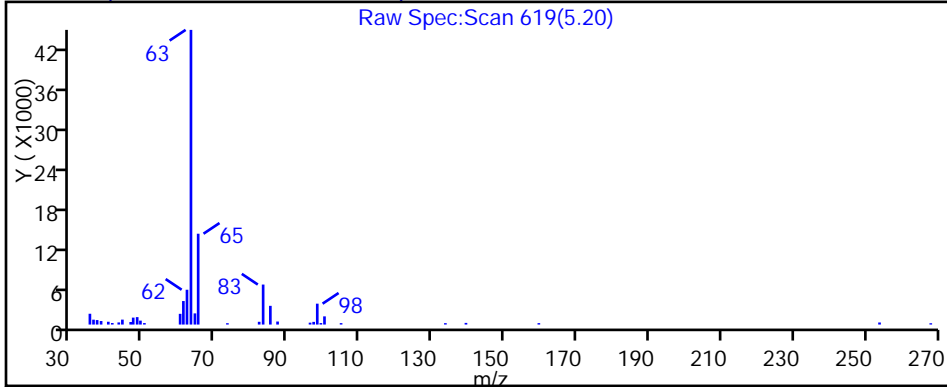
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Client ID: HD-MW-32S-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

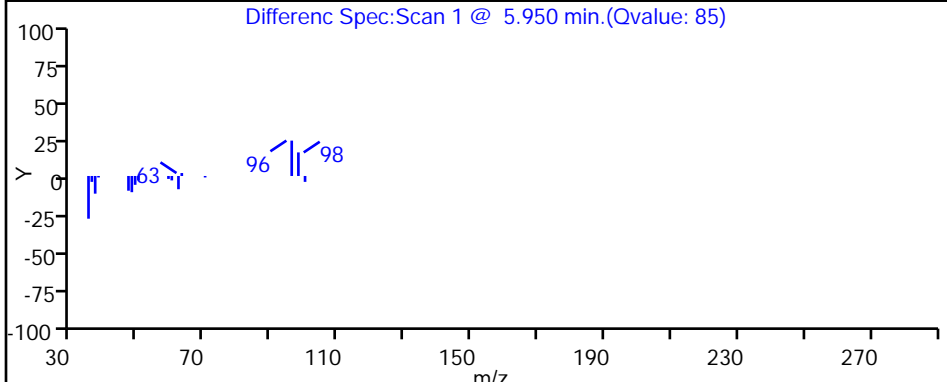
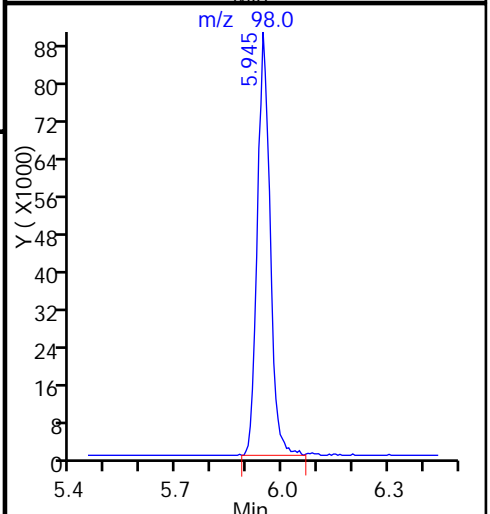
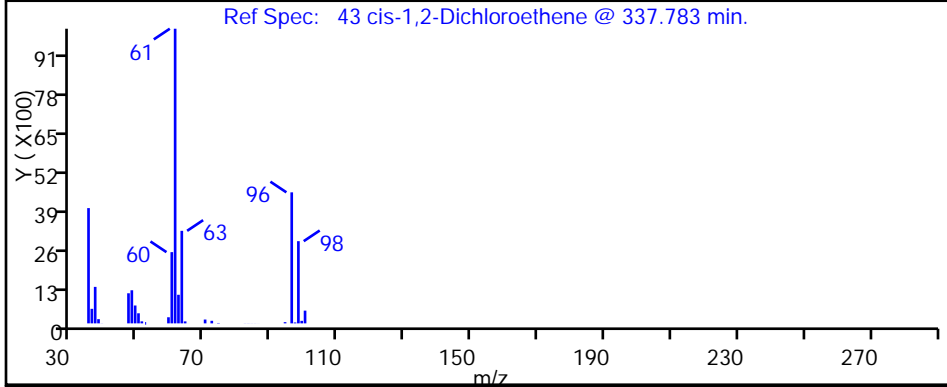
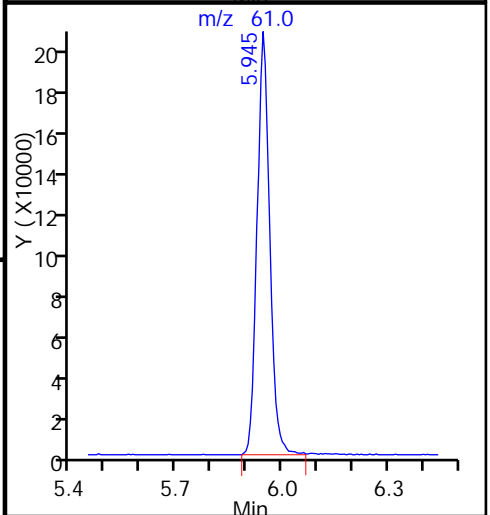
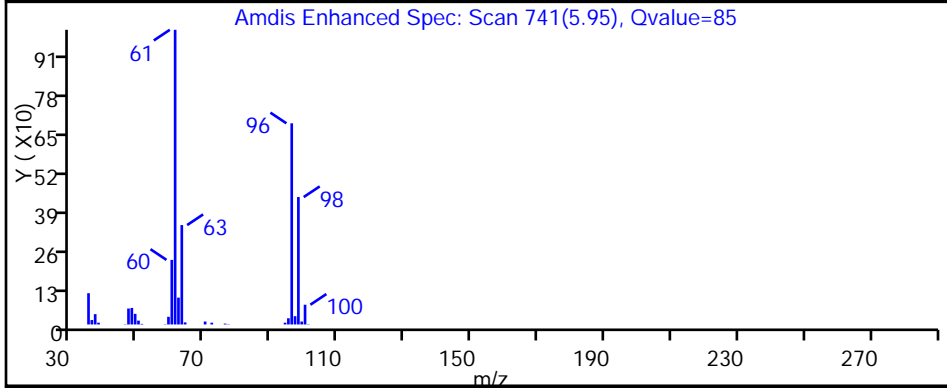
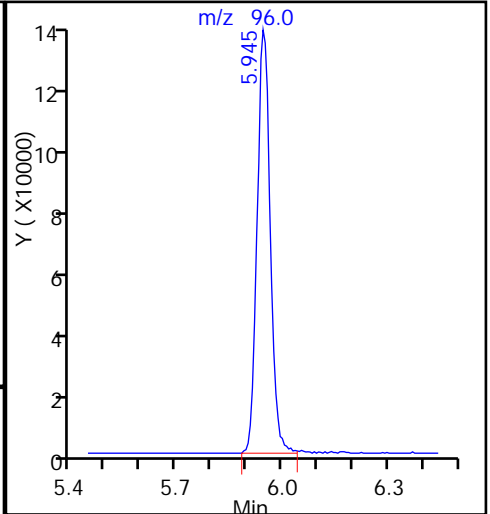
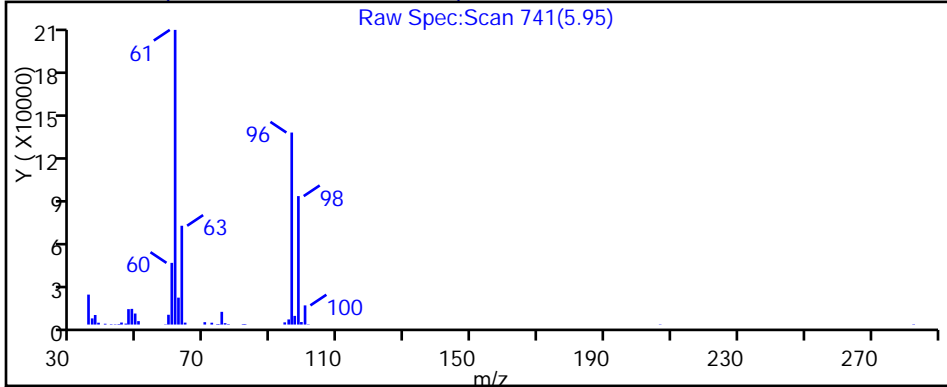
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Client ID: HD-MW-32S-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

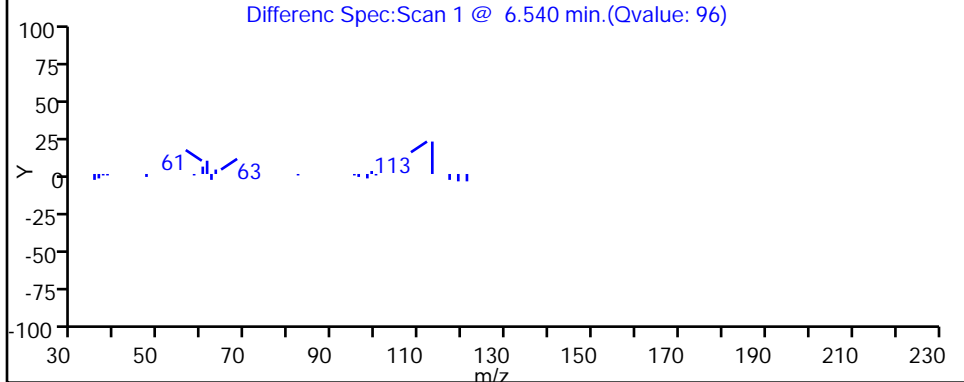
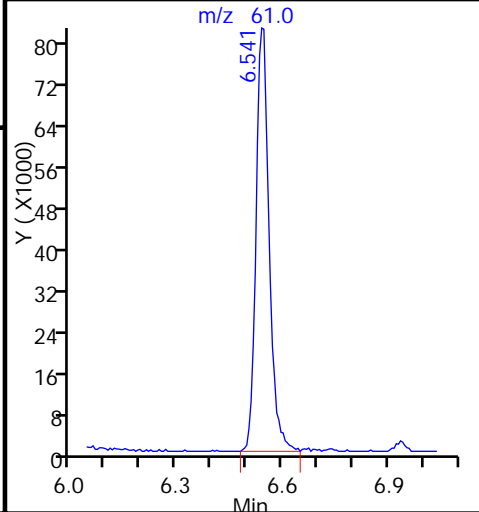
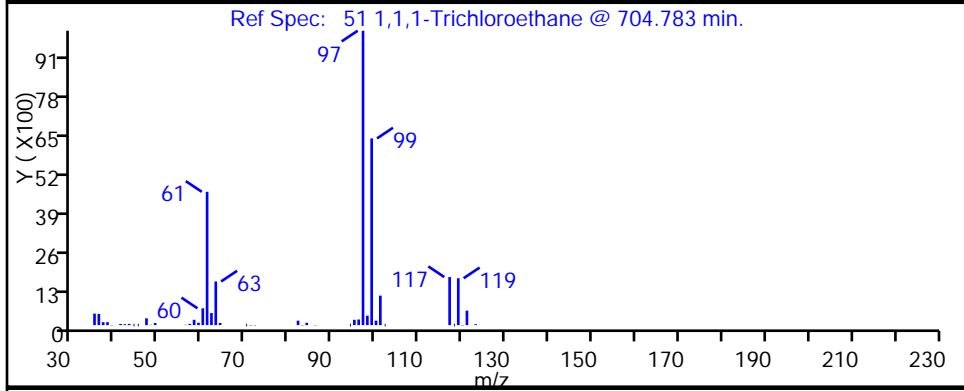
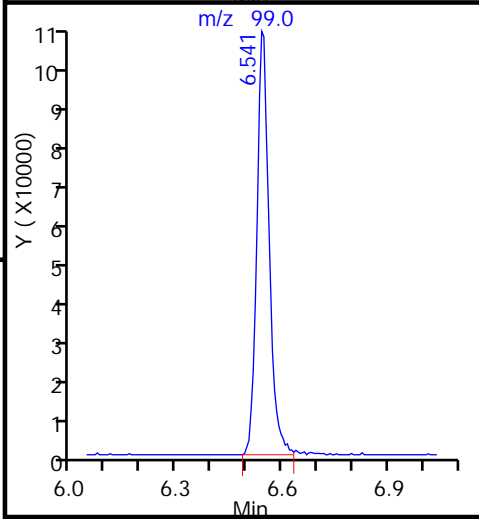
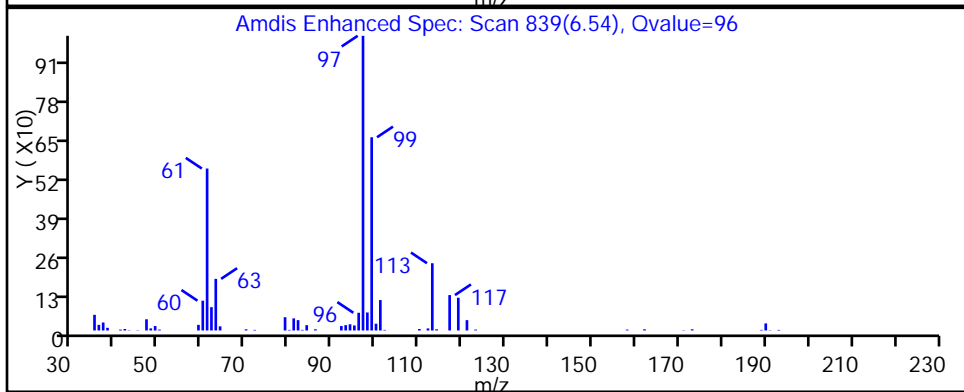
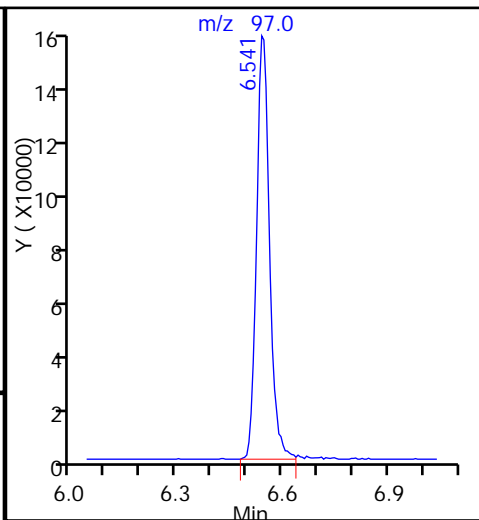
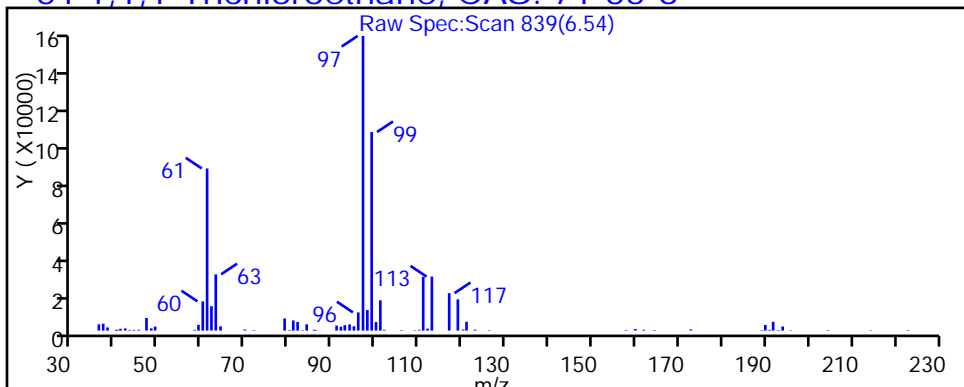
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Client ID: HD-MW-32S-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

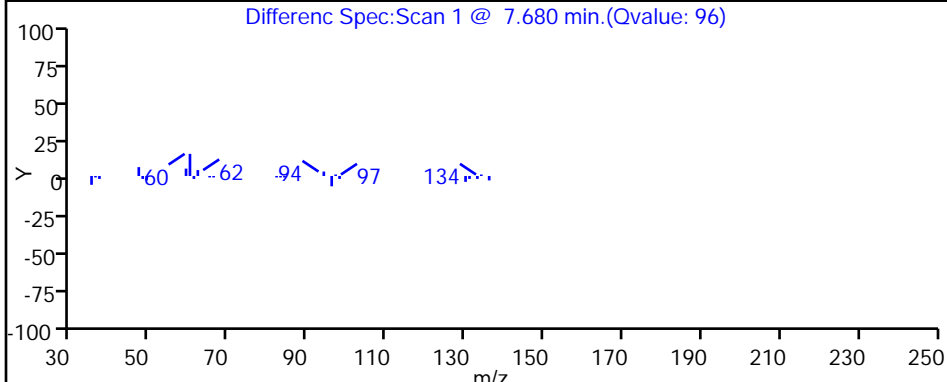
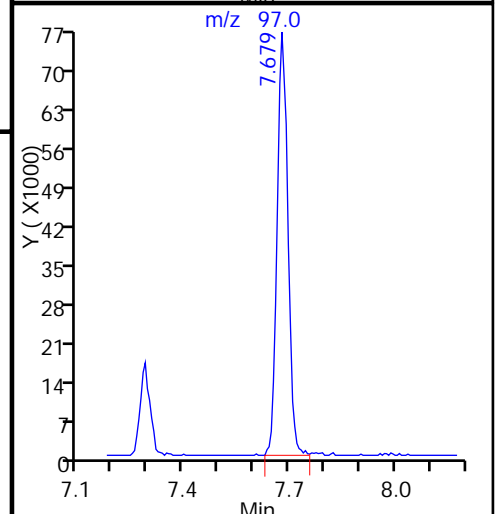
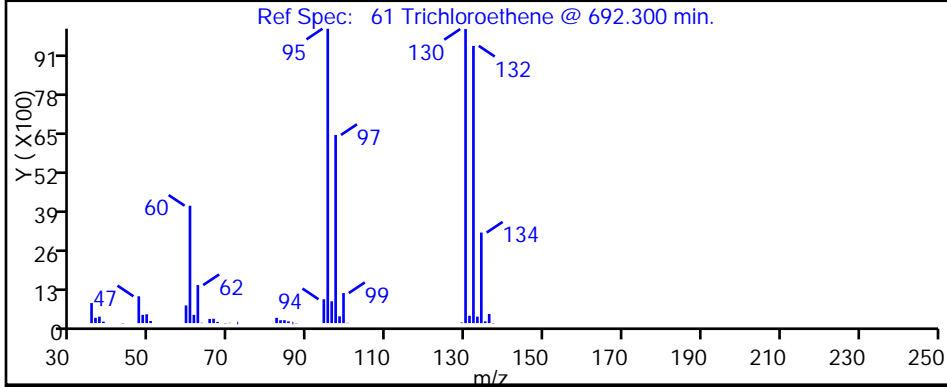
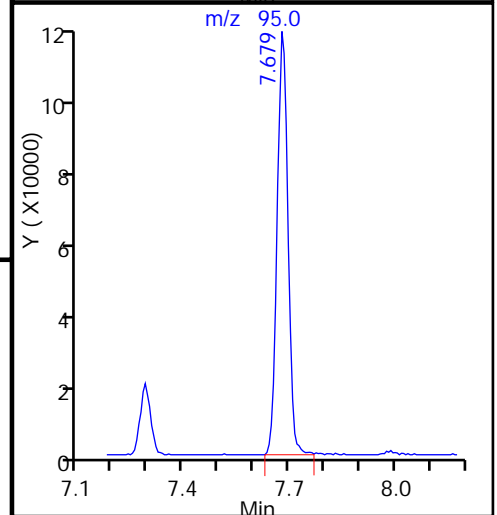
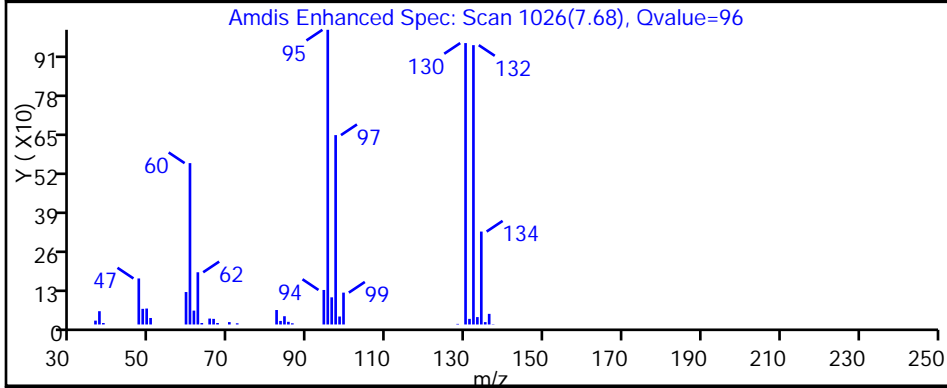
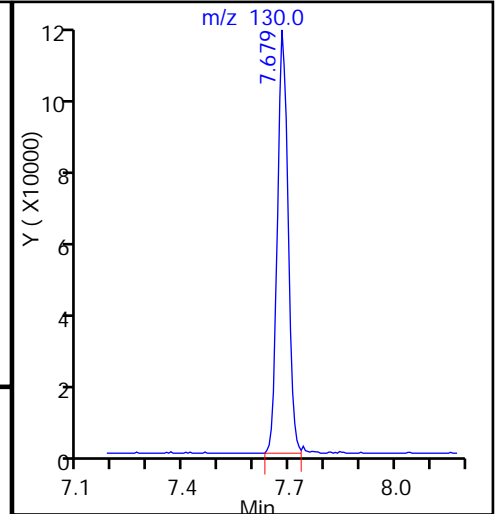
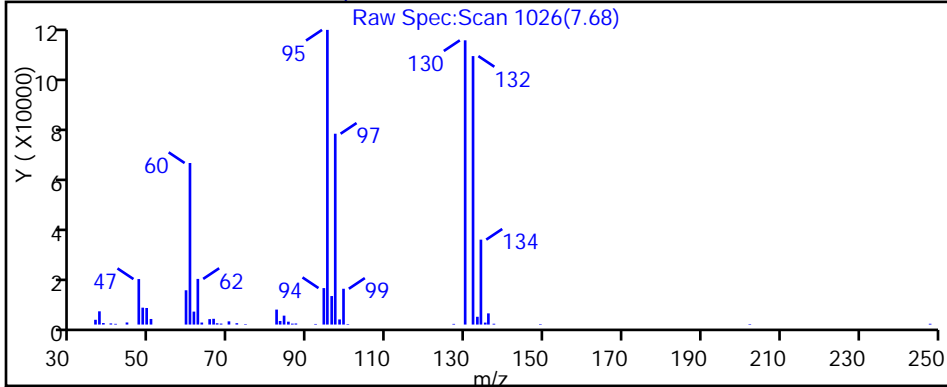
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929024.D

Injection Date: 29-Sep-2015 20:47:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-4

Lab Sample ID: 180-47984-4

Client ID: HD-MW-32S-0/1-0

Operator ID: 001562

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

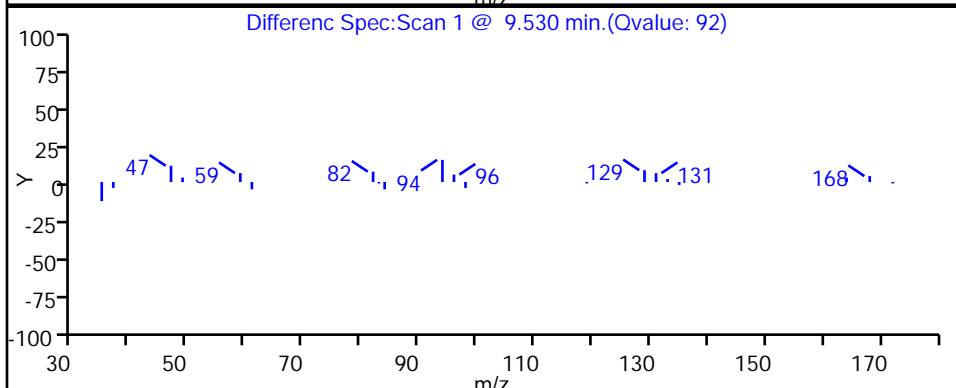
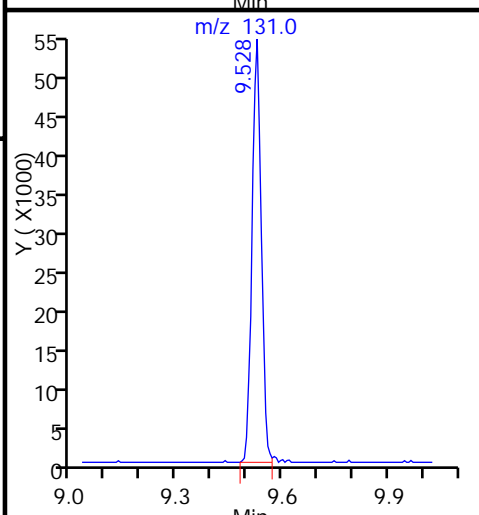
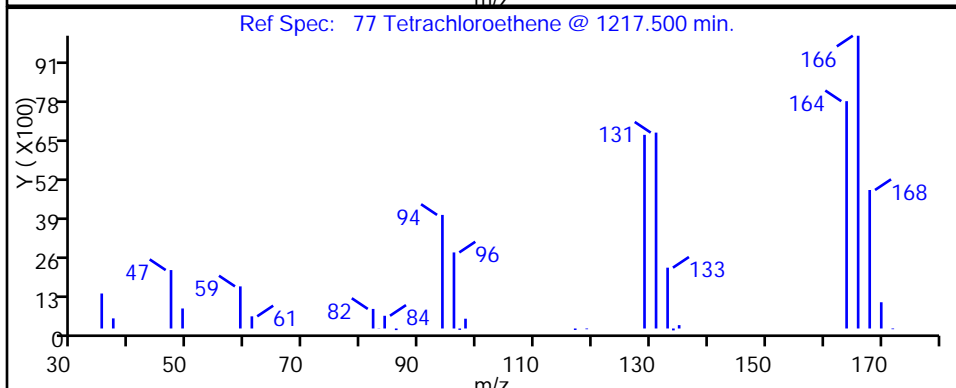
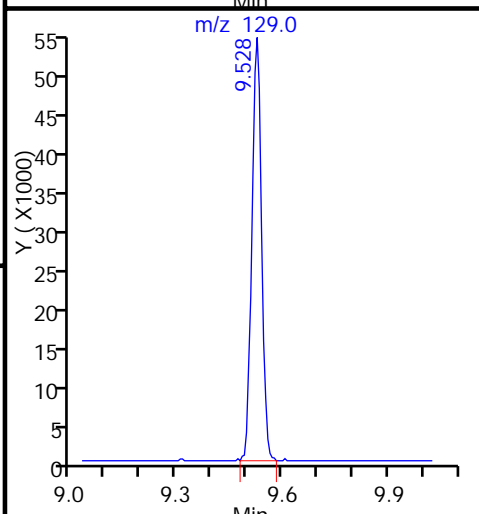
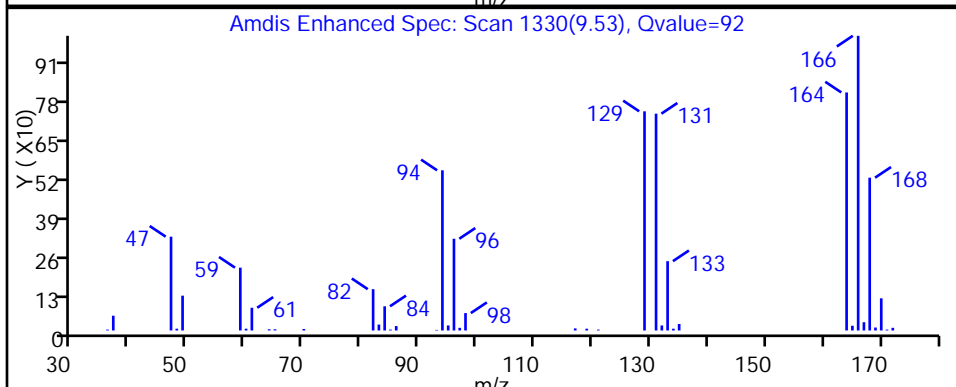
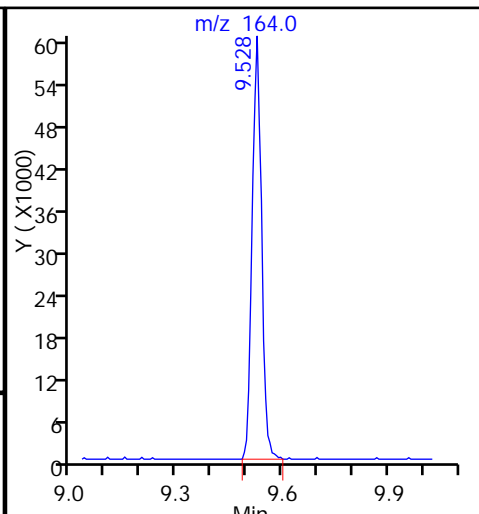
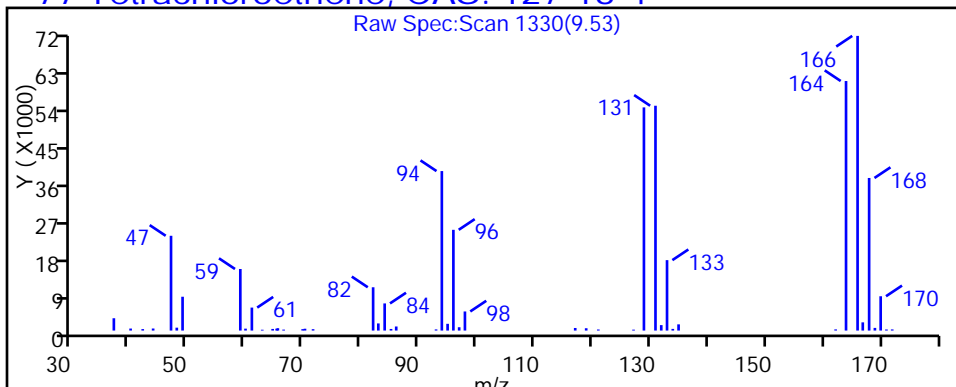
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4





FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-47984-5  
 Matrix: Water Lab File ID: 60929025.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 08:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 21:11  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		10	2.8
75-01-4	Vinyl chloride	ND		10	2.3
74-83-9	Bromomethane	ND	^c	10	3.1
75-00-3	Chloroethane	ND		10	2.1
75-35-4	1,1-Dichloroethene	39		10	3.0
67-64-1	Acetone	ND		50	25
75-15-0	Carbon disulfide	ND		10	2.1
75-09-2	Methylene Chloride	ND		10	1.3
156-60-5	trans-1,2-Dichloroethene	ND		10	1.7
1634-04-4	Methyl tert-butyl ether	ND		10	1.8
75-34-3	1,1-Dichloroethane	55		10	1.2
156-59-2	cis-1,2-Dichloroethene	250		10	2.4
74-97-5	Bromochloromethane	ND		10	1.8
78-93-3	2-Butanone (MEK)	ND		50	5.5
67-66-3	Chloroform	ND		10	1.7
71-55-6	1,1,1-Trichloroethane	230		10	2.9
56-23-5	Carbon tetrachloride	ND		10	1.4
71-43-2	Benzene	ND		10	1.1
107-06-2	1,2-Dichloroethane	ND		10	2.1
79-01-6	Trichloroethene	220		10	1.4
78-87-5	1,2-Dichloropropane	ND		10	0.95
75-27-4	Bromodichloromethane	ND		10	1.3
10061-01-5	cis-1,3-Dichloropropene	ND		10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	5.3
108-88-3	Toluene	ND		10	1.5
10061-02-6	trans-1,3-Dichloropropene	ND		10	1.5
79-00-5	1,1,2-Trichloroethane	ND		10	2.0
127-18-4	Tetrachloroethene	130		10	1.5
591-78-6	2-Hexanone	ND		50	1.6
124-48-1	Dibromochloromethane	ND		10	1.4
106-93-4	1,2-Dibromoethane (EDB)	ND		10	1.8
108-90-7	Chlorobenzene	ND		10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	ND		10	2.8
100-41-4	Ethylbenzene	ND		10	2.3
1330-20-7	Xylenes, Total	ND		30	4.9
100-42-5	Styrene	ND		10	0.97

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-47984-5  
 Matrix: Water Lab File ID: 60929025.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 08:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 21:11  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	ND		10	2.0
107-13-1	Acrylonitrile	ND		200	5.5
123-91-1	1,4-Dioxane	ND		2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D  
 Lims ID: 180-47984-C-5 Lab Sample ID: 180-47984-5  
 Client ID: HD-QC2-0/1-1  
 Sample Type: Client  
 Inject. Date: 29-Sep-2015 21:11:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 5.000 mL Dil. Factor: 10.0000  
 Sample Info: 180-47984-C-5, 10x  
 Misc. Info.: 180-0008741-025  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 08:37:54 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond

Date: 30-Sep-2015 08:37:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.243	4.242	0.001	90	168756	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.283	0.008	97	462923	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	91	106910	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.746	0.002	98	175040	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.553	0.002	94	113235	53.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	70	180767	52.5	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.938	0.008	94	440279	52.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.584	0.002	83	169905	45.4	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.246				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96	3.355	3.335	0.020	93	45088	19.3	
24 Acetone	43		3.420				ND	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.120				ND	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96	4.584	4.558	0.026	1	1275	0.4741	
35 Methyl tert-butyl ether	73		4.570				ND	
37 1,1-Dichloroethane	63	5.198	5.191	0.007	98	131759	27.4	
43 cis-1,2-Dichloroethene	96	5.946	5.939	0.007	82	361903	123.8	
44 2-Butanone (MEK)	43		5.945				ND	
48 Chlorobromomethane	128		6.231				ND	
50 Chloroform	83	6.378	6.371	0.007	37	2156	0.4512	
51 1,1,1-Trichloroethane	97	6.543	6.541	0.002	96	398677	112.9	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.937				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.680	7.679	0.001	96	247988	110.2	
64 1,2-Dichloropropane	63		7.953				ND	
65 1,4-Dioxane	88		8.032				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.226				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164	9.530	9.522	0.008	91	120640	64.1	
79 2-Hexanone	43		9.662				ND	
81 Chlorodibromomethane	129		9.826				ND	
82 Ethylene Dibromide	107		9.942				ND	
84 Chlorobenzene	112		10.429				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.660				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Worklist Smp#: 25

Client ID: HD-QC2-0/1-1

Purge Vol: 5.000 mL

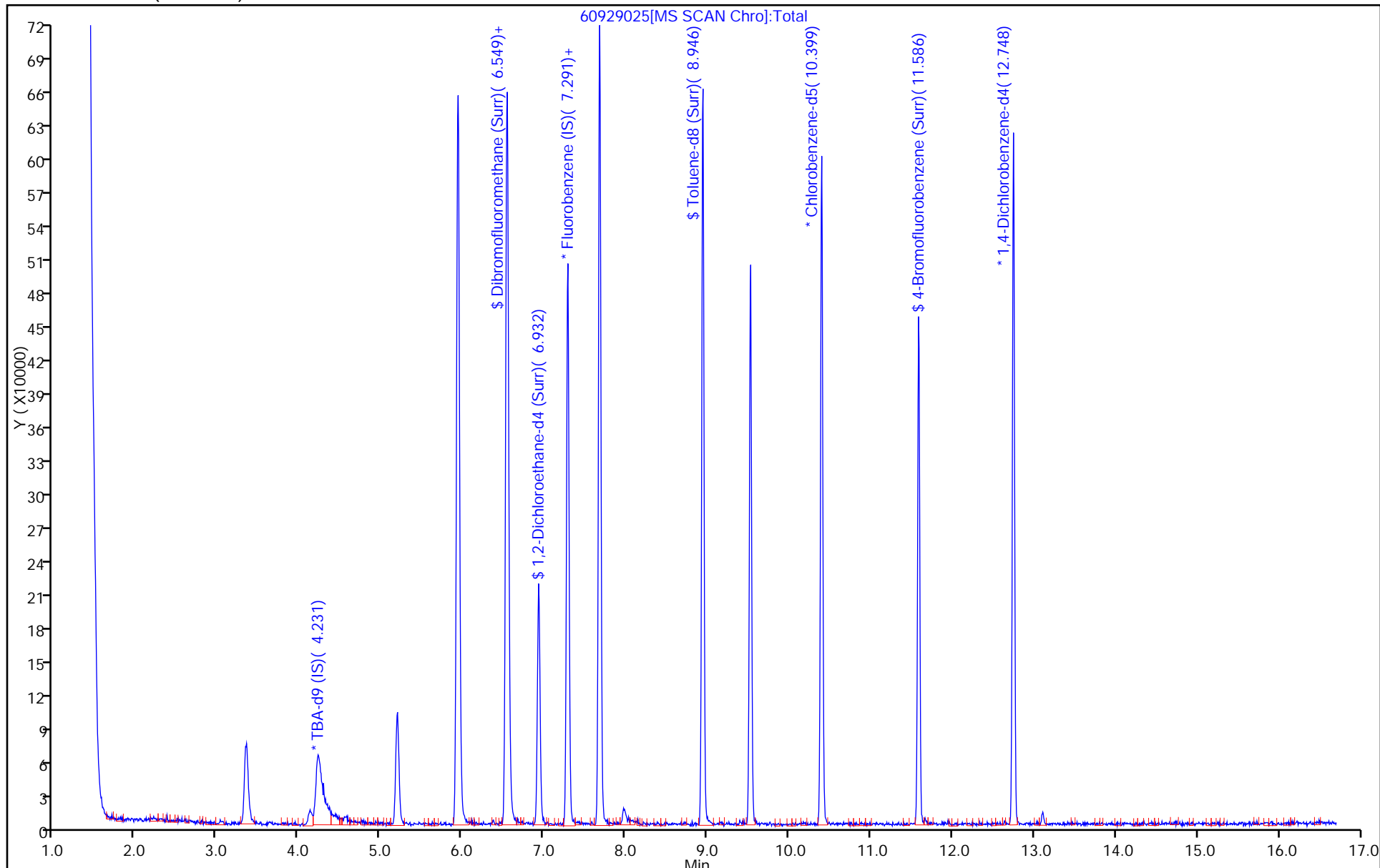
Dil. Factor: 10.0000

ALS Bottle#: 24

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Client ID: HD-QC2-0/1-1

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

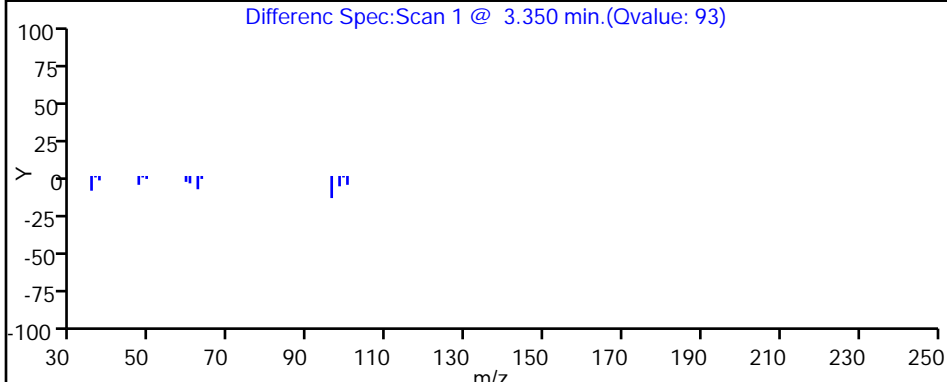
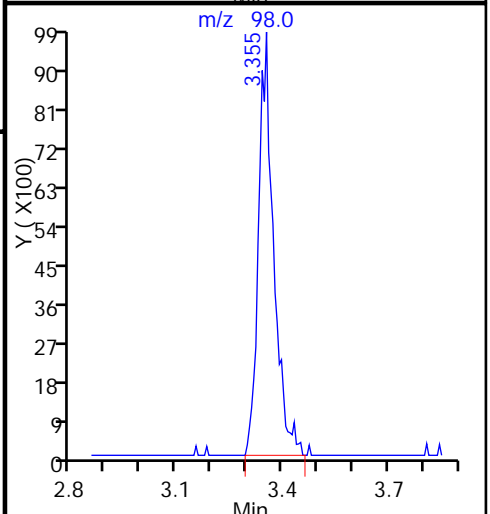
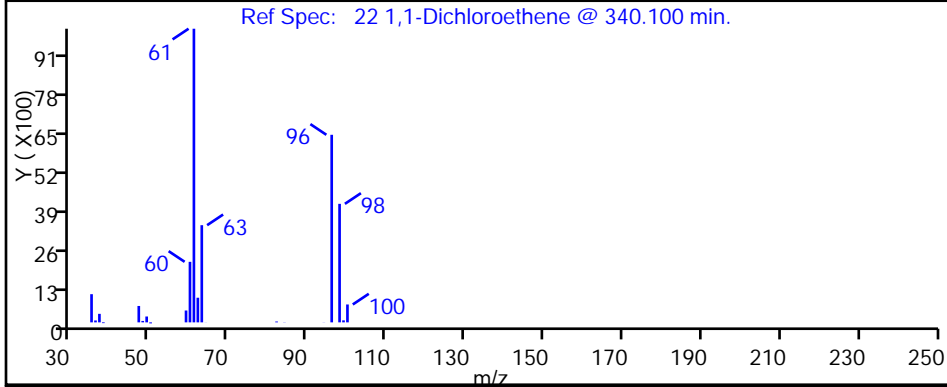
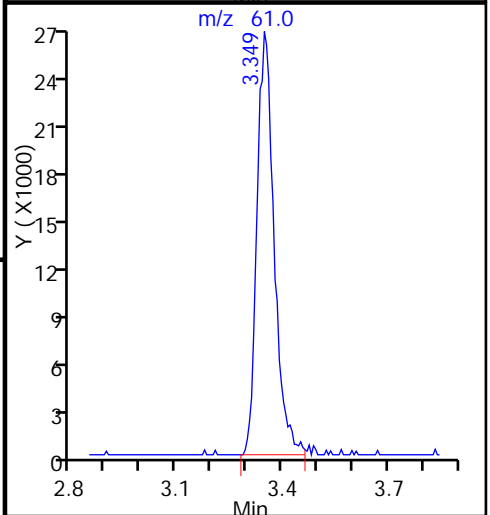
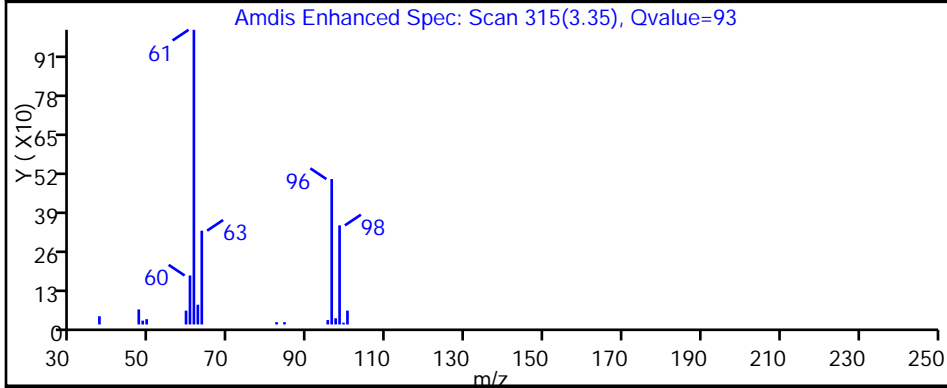
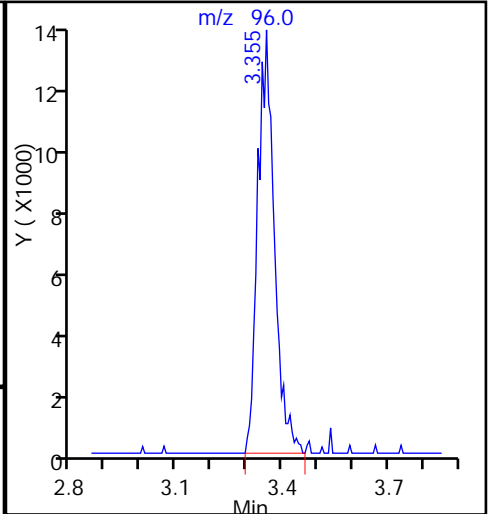
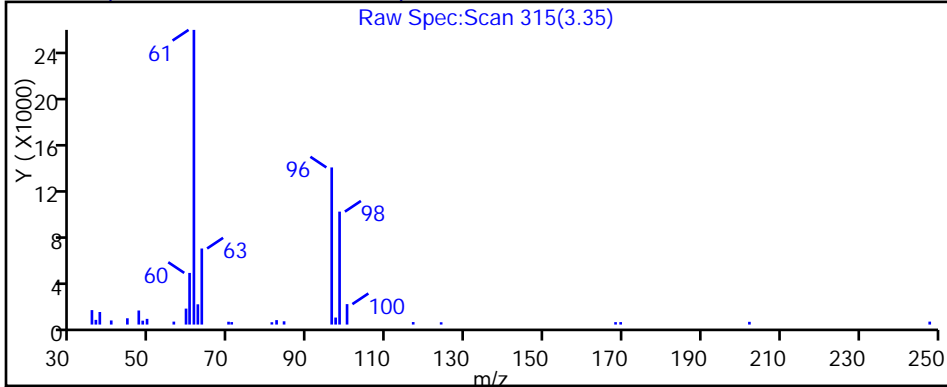
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

22 1,1-Dichloroethene, CAS: 75-35-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Client ID: HD-QC2-0/1-1

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

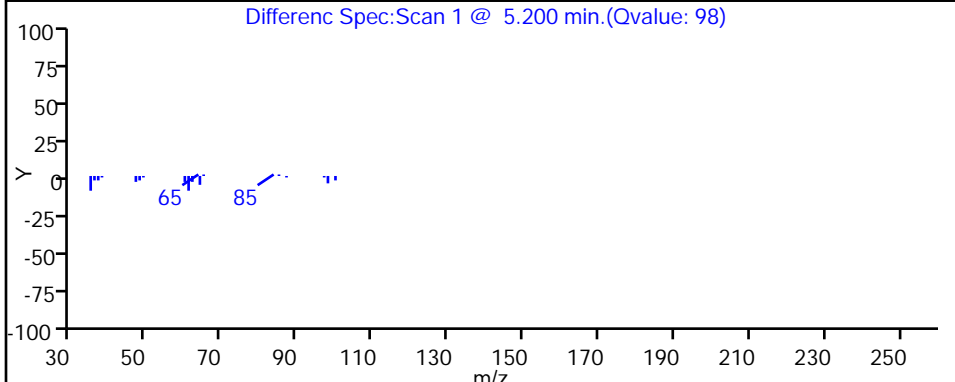
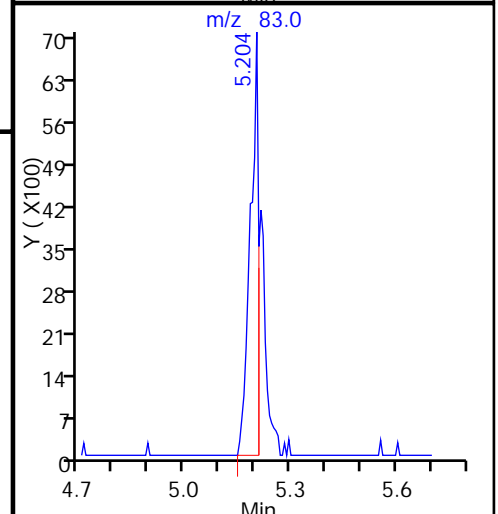
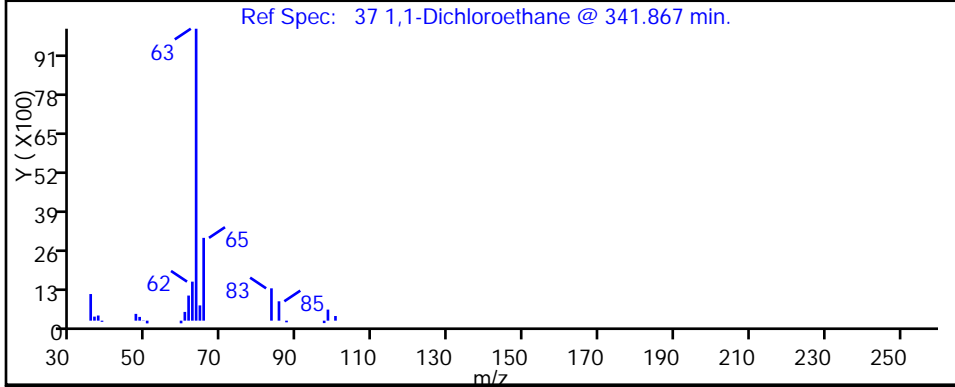
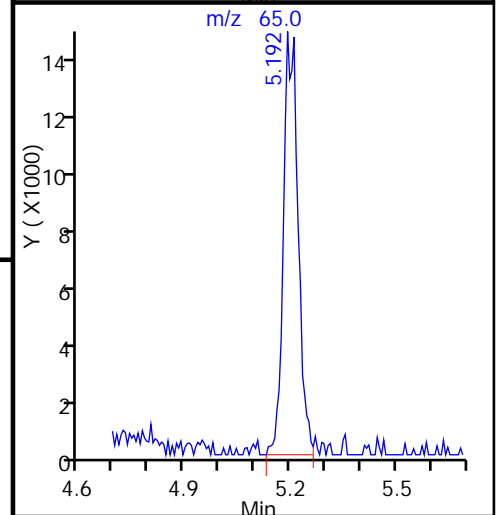
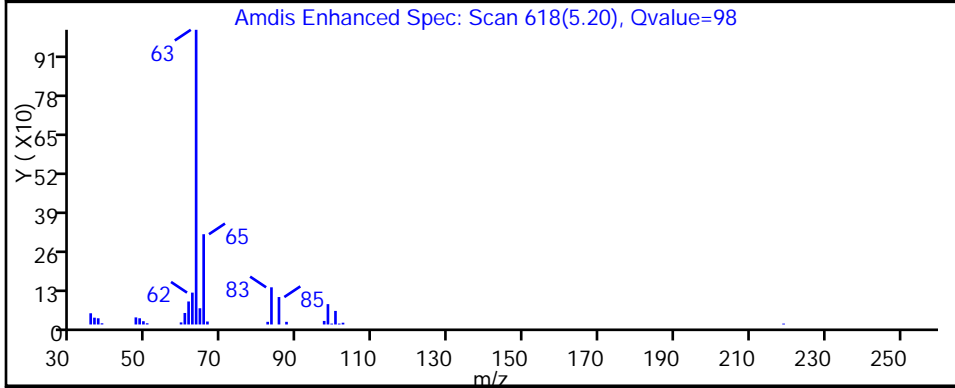
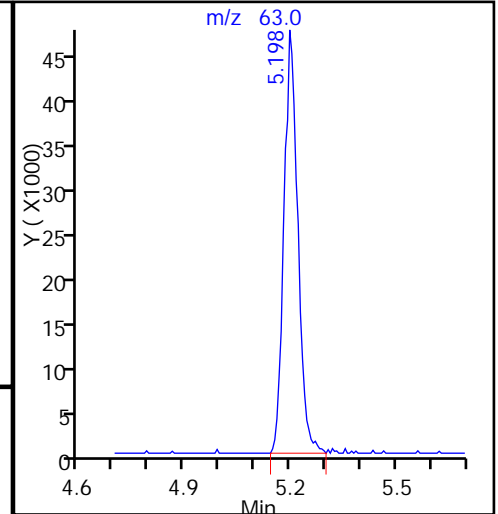
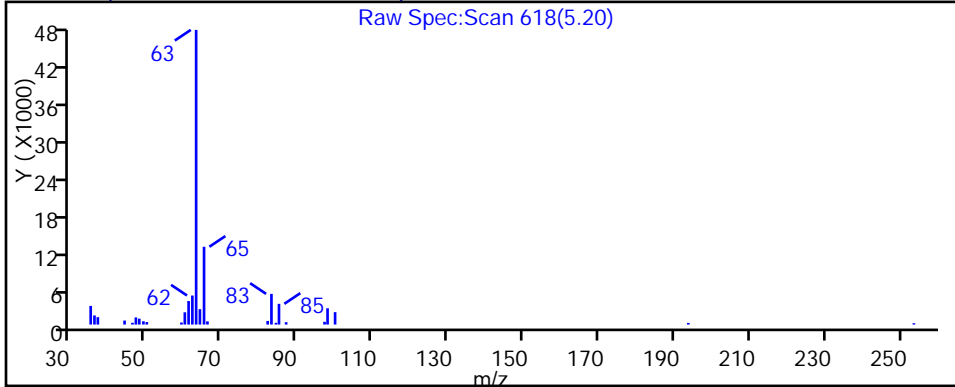
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

37 1,1-Dichloroethane, CAS: 75-34-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Client ID: HD-QC2-0/1-1

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

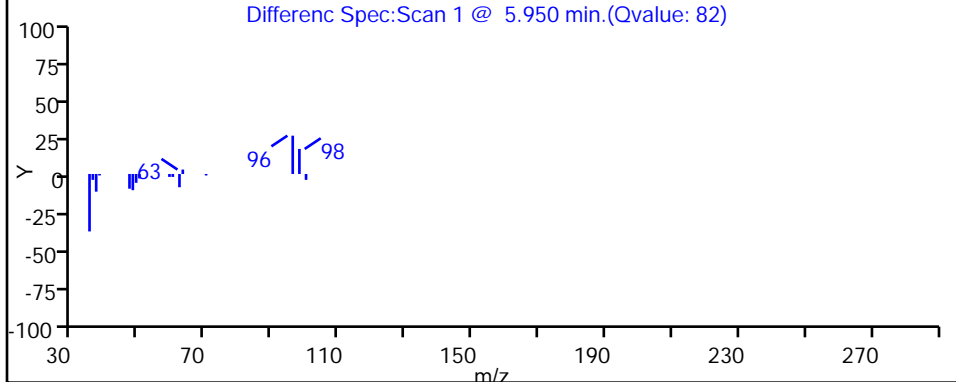
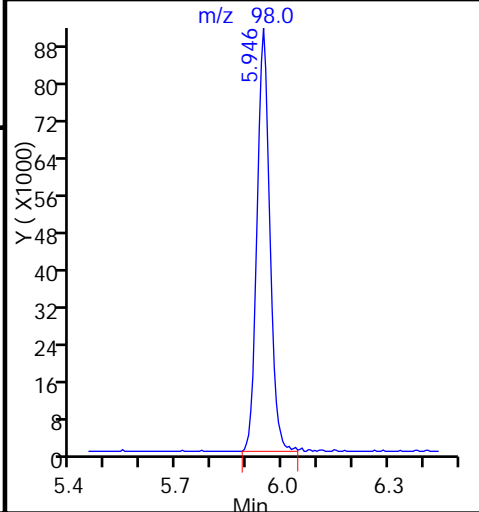
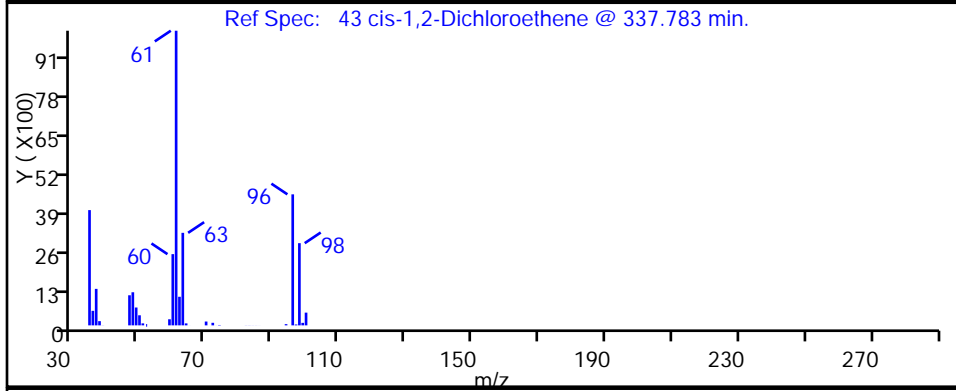
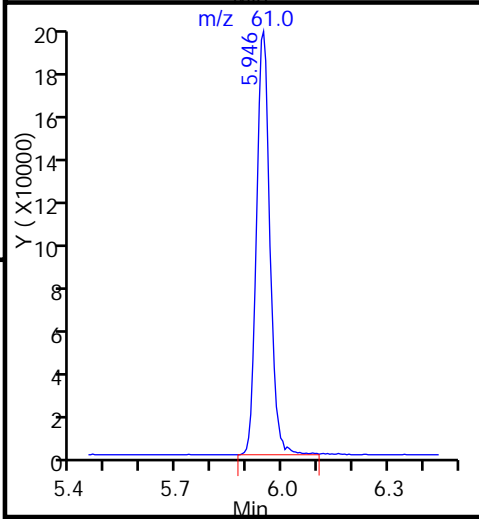
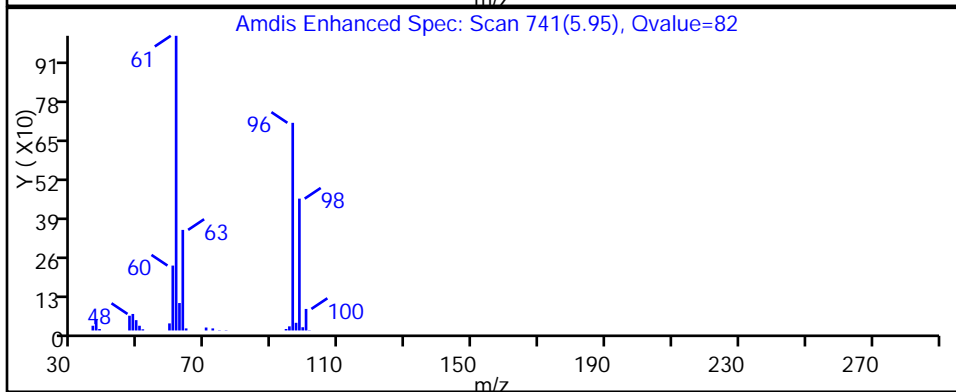
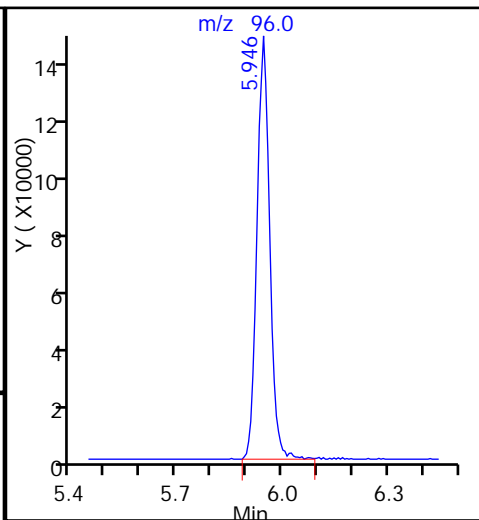
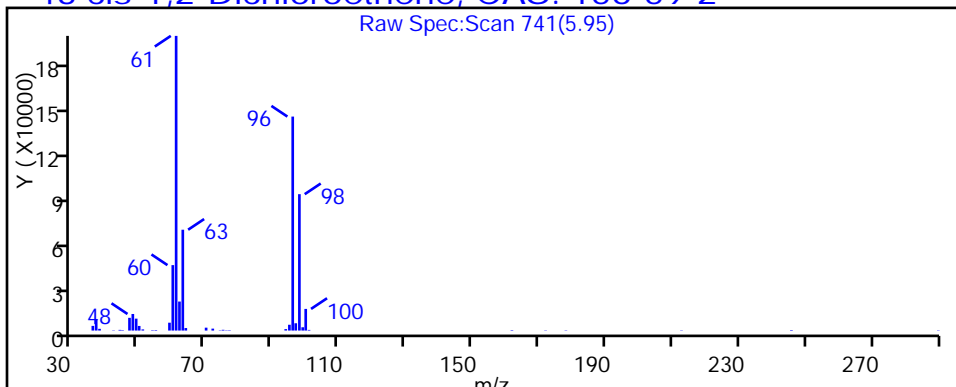
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

43 cis-1,2-Dichloroethene, CAS: 156-59-2





TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Client ID: HD-QC2-0/1-1

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

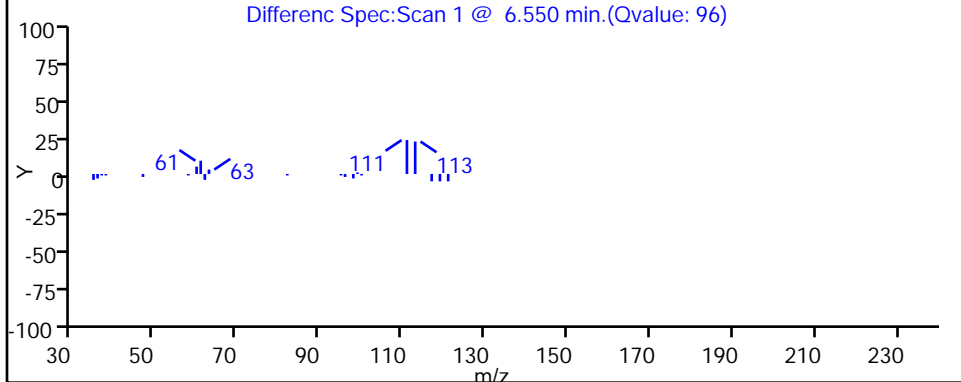
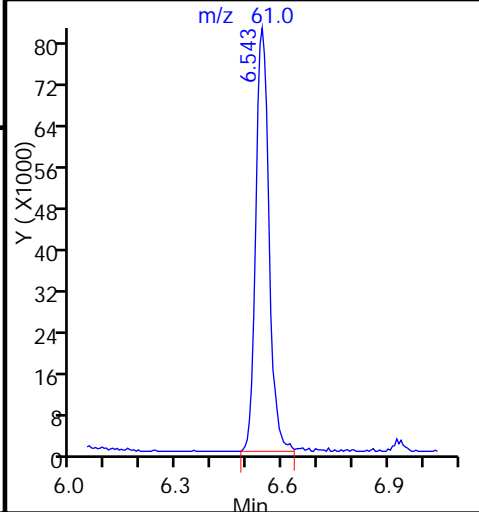
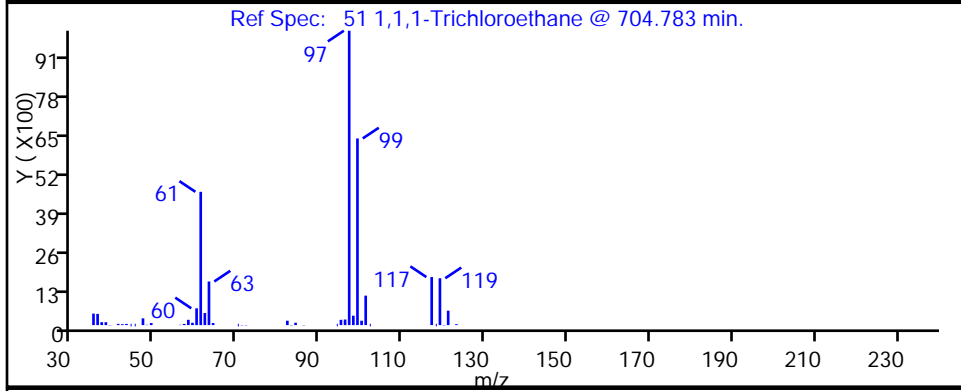
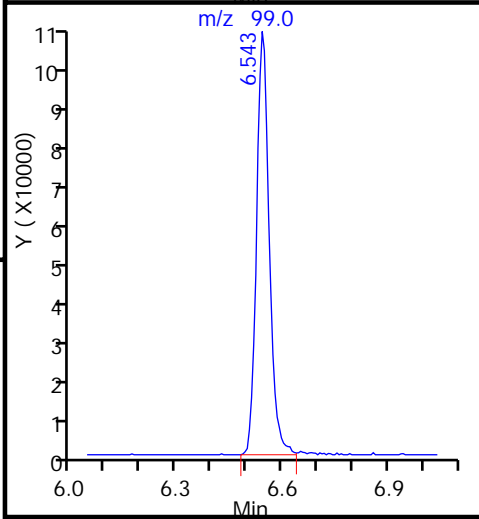
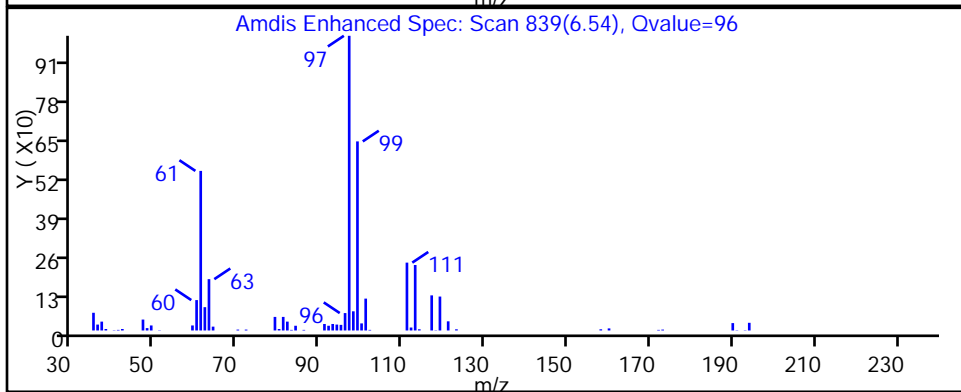
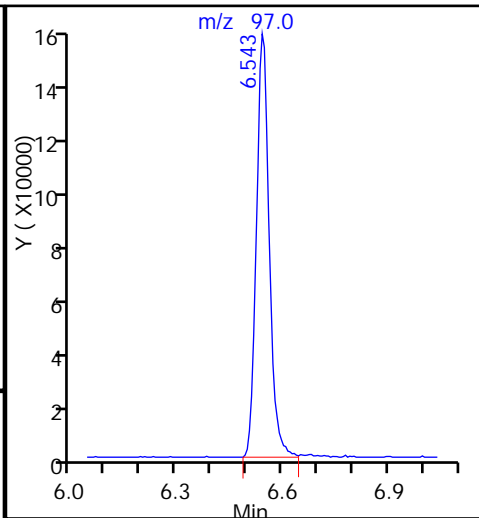
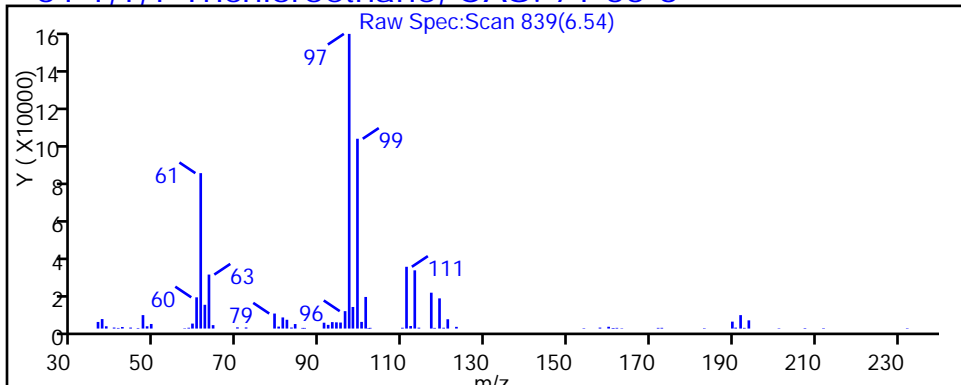
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Client ID: HD-QC2-0/1-1

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

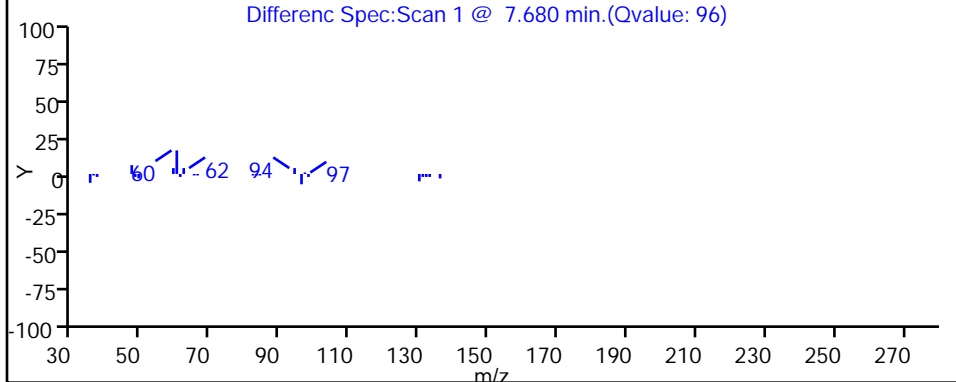
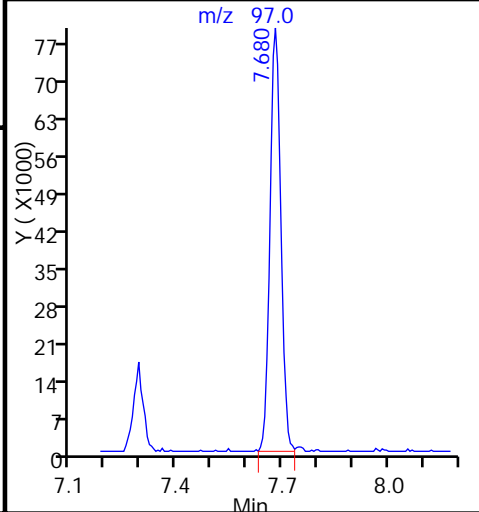
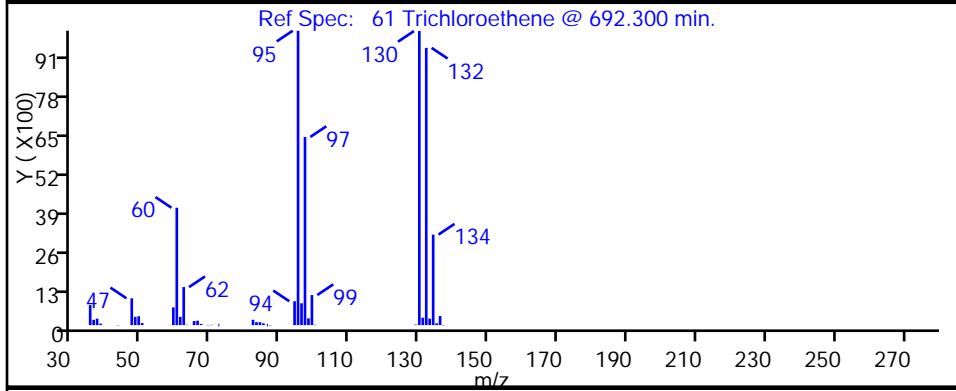
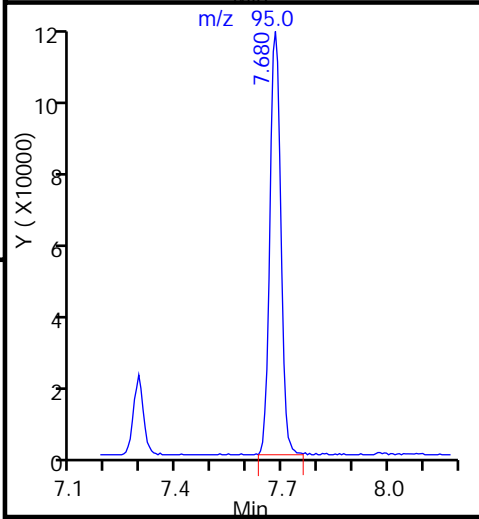
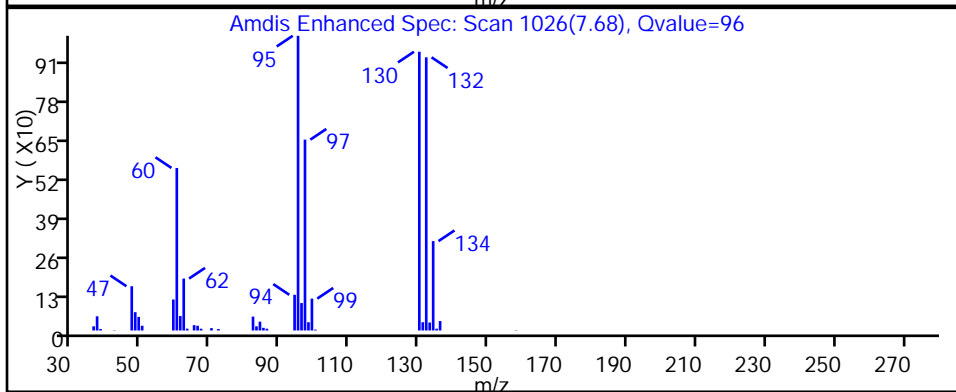
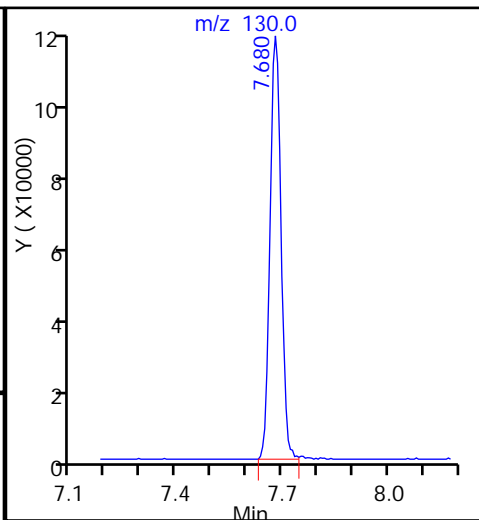
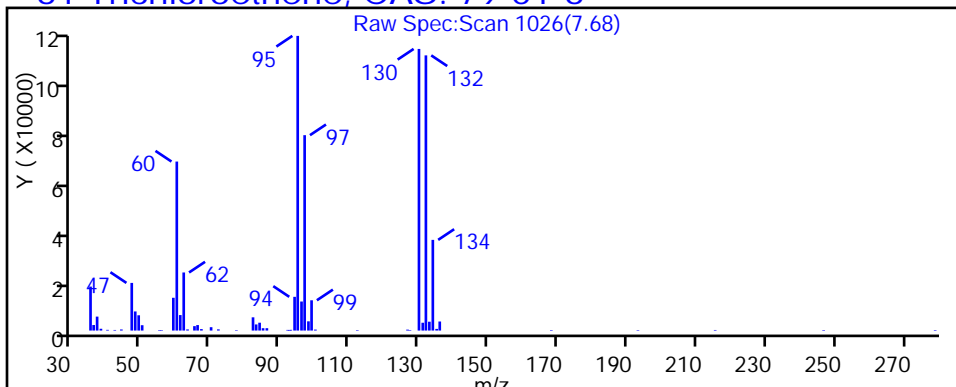
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

61 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929025.D

Injection Date: 29-Sep-2015 21:11:30

Instrument ID: CHHP6

Lims ID: 180-47984-C-5

Lab Sample ID: 180-47984-5

Client ID: HD-QC2-0/1-1

Operator ID: 001562

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

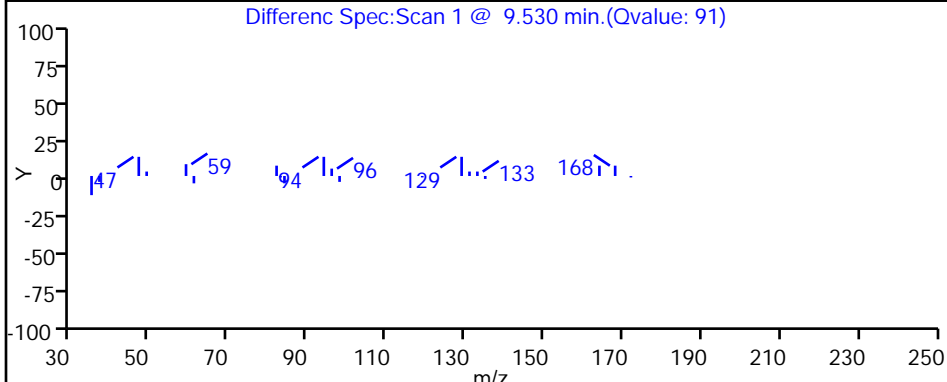
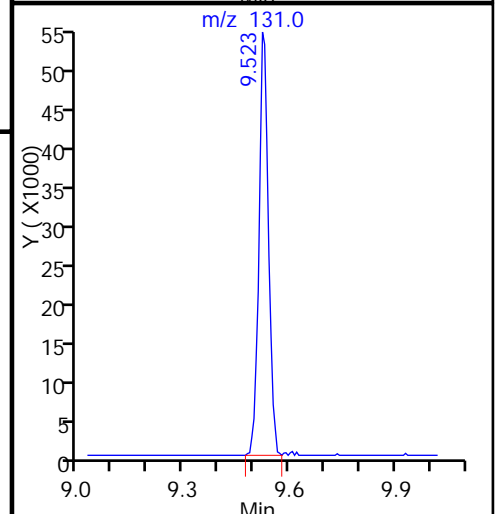
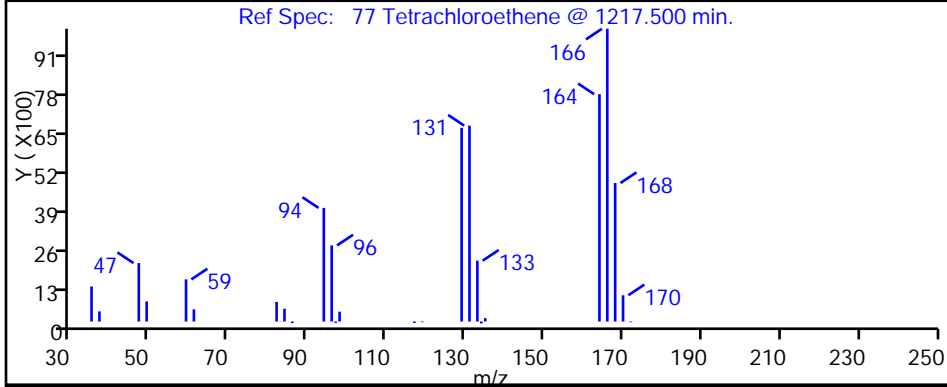
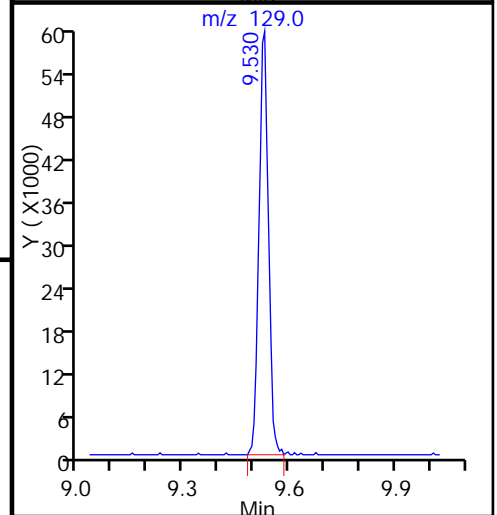
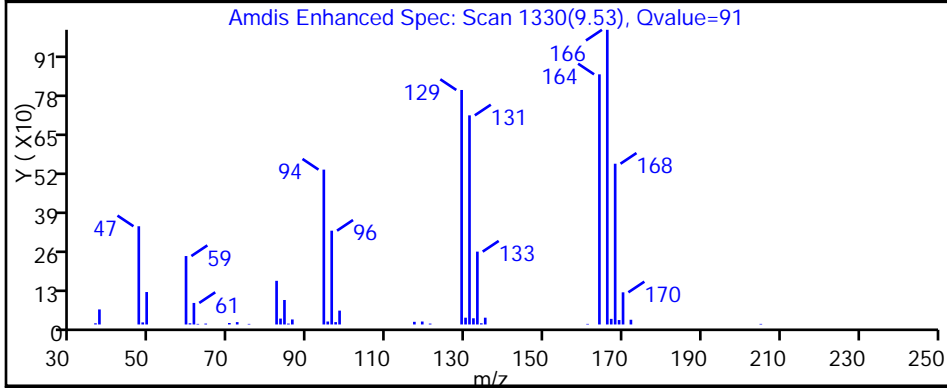
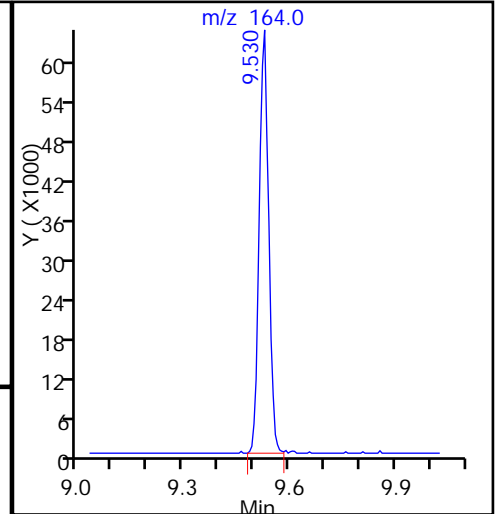
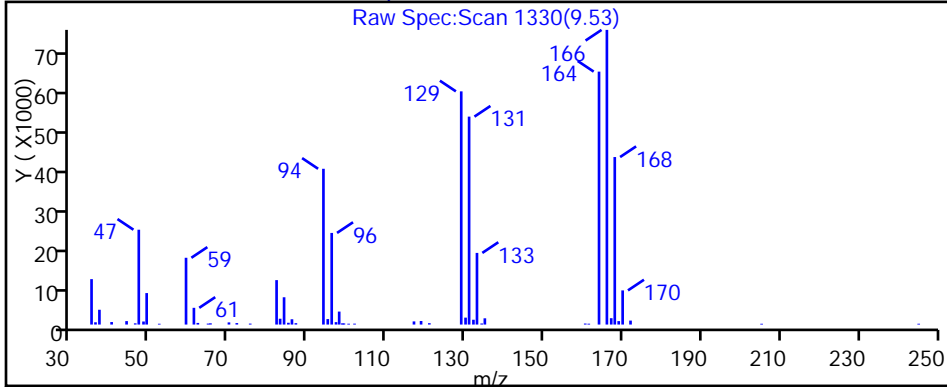
Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

77 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC5-0/1-2 Lab Sample ID: 180-47984-6  
 Matrix: Water Lab File ID: 60928005.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 13:00  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND	^c	5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC5-0/1-2 Lab Sample ID: 180-47984-6  
 Matrix: Water Lab File ID: 60928005.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 12:00  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 13:00  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	94		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928005.D  
 Lims ID: 180-47984-B-6 Lab Sample ID: 180-47984-6  
 Client ID: HD-QC5-0/1-2  
 Sample Type: Client  
 Inject. Date: 28-Sep-2015 13:00:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47984-A-1  
 Misc. Info.: 180-0008724-005  
 Operator ID: 034635 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 13:51:36 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 28-Sep-2015 13:51:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.230	4.241	-0.011	87	160314	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	97	555419	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	91	125375	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	98	200922	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.547	0.007	93	120684	47.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.930	0.001	71	204818	49.6	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	94	522852	52.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	84	211926	48.3	
12 Chloromethane	50		1.765				ND	
13 Vinyl chloride	62		1.905				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.380				ND	
22 1,1-Dichloroethene	96		3.341				ND	
24 Acetone	43		3.426				ND	
26 Carbon disulfide	76		3.633				ND	
31 Methylene Chloride	84		4.126				ND	
33 Acrylonitrile	53		4.503				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.564				ND	
37 1,1-Dichloroethane	63		5.190				ND	
43 cis-1,2-Dichloroethene	96		5.933				ND	
44 2-Butanone (MEK)	43		5.951				ND	
48 Chlorobromomethane	128		6.225				ND	
50 Chloroform	83		6.371				ND	
51 1,1,1-Trichloroethane	97		6.535				ND	
53 Carbon tetrachloride	117		6.717				ND	
56 Benzene	78		6.942				ND	
57 1,2-Dichloroethane	62		7.015				ND	
61 Trichloroethene	130		7.679				ND	
64 1,2-Dichloropropane	63		7.952				ND	
65 1,4-Dioxane	88		8.038				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.232				ND	
71 cis-1,3-Dichloropropene	75		8.676				ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.822				ND	
73 Toluene	91		9.011				ND	
74 trans-1,3-Dichloropropene	75		9.254				ND	
76 1,1,2-Trichloroethane	97		9.449				ND	
77 Tetrachloroethene	164		9.528				ND	
79 2-Hexanone	43		9.656				ND	
81 Chlorodibromomethane	129		9.820				ND	
82 Ethylene Dibromide	107		9.936				ND	
84 Chlorobenzene	112		10.428				ND	
86 1,1,1,2-Tetrachloroethane	131		10.520				ND	
87 Ethylbenzene	106		10.526				ND	
88 m-Xylene & p-Xylene	106		10.659				ND	
89 o-Xylene	106		11.037				ND	
90 Styrene	104		11.061				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.712				ND	
S 131 Xylenes, Total	106		1.000				ND	

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928005.D

Injection Date: 28-Sep-2015 13:00:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: 180-47984-B-6

Lab Sample ID: 180-47984-6

Worklist Smp#: 5

Client ID: HD-QC5-0/1-2

Purge Vol: 5.000 mL

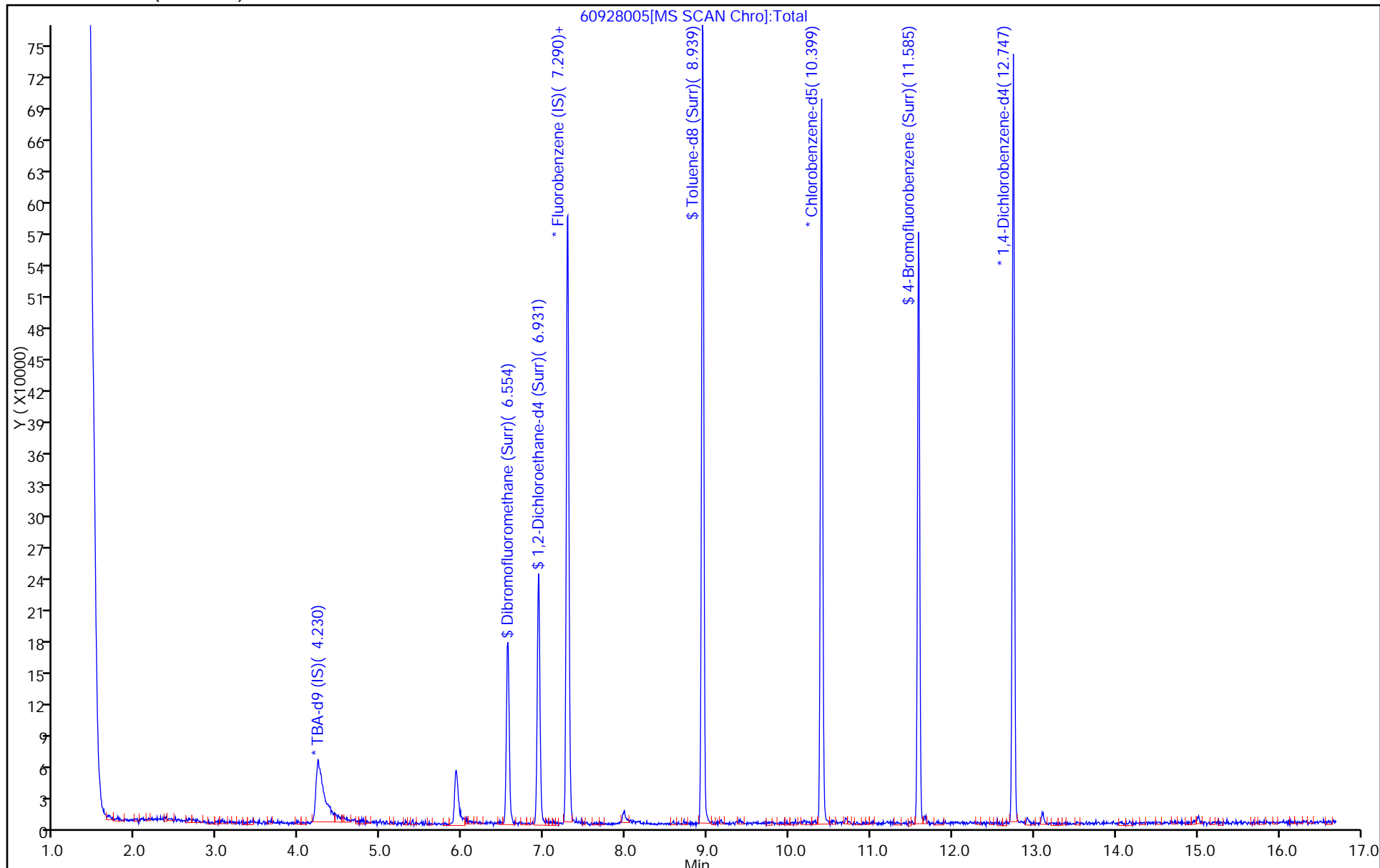
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-149469/14	60731014.D
Level 2	IC 180-149469/4	60731004.D
Level 3	ICIS 180-149469/5	60731005.D
Level 4	IC 180-149469/6	60731006.D
Level 5	IC 180-149469/7	60731007.D
Level 6	IC 180-149469/8	60731008.D
Level 7	IC 180-149469/9	60731009.D
Level 8	IC 180-149469/10	60731010.D

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														
Dichlorodifluoromethane	0.3784 0.3460	0.3285 0.3562	0.3421 0.3286	0.3615	0.3285	Ave		0.3462			0.1000	5.3	20.0				
Chloromethane	0.3392 0.2834	0.3040 0.2926	0.3038 0.2799	0.2953	0.2891	Ave		0.2984			0.1000	6.2	20.0				
Vinyl chloride	0.3459 0.3113	0.3263 0.3277	0.3180 0.3087	0.3307	0.3028	Ave		0.3214			0.1000	4.4	20.0				
1,3-Butadiene	0.3349 0.2908	0.3110 0.3014	0.3020 0.2828	0.3029	0.2847	Ave		0.3013			0.0100	5.5	20.0				
Bromomethane	0.2086 0.1495	0.1854 0.1475	0.1846 +++++	0.1749	0.1644	Ave		0.1735			0.0500	12.5	20.0				
Chloroethane	0.2173 0.2164	0.2251 0.2256	0.2291 0.2095	0.2259	0.2061	Ave		0.2194			0.0500	3.8	20.0				
Dichlorofluoromethane	0.5463 0.4931	0.5444 0.5038	0.5165 0.4737	0.5267	0.4802	Ave		0.5106			0.0100	5.4	20.0				
Trichlorofluoromethane	0.4247 0.4001	0.4150 0.4067	0.4245 0.3867	0.4197	0.3805	Ave		0.4072			0.1000	4.2	20.0				
Ethyl ether	0.3195 0.2756	0.2914 0.2931	0.2819 0.2818	0.2864	0.2793	Ave		0.2886			0.0100	4.8	20.0				
Acrolein	0.0310 0.0318	0.0309 0.0342	0.0297 0.0340	0.0320	0.0281	Ave		0.0315			0.0100	6.5	20.0				
1,1-Dichloroethene	0.2600 0.2474	0.2411 0.2670	0.2447 0.2555	0.2551	0.2426	Ave		0.2517			0.1000	3.7	20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2893 0.2688	0.2611 0.2694	0.2602 0.2595	0.2670	0.2502	Ave		0.2657			0.1000	4.3	20.0				
Acetone	0.0973 0.0856	0.0931 0.0888	0.0785 0.0945	0.0834	0.0864	Ave		0.0885			0.0500	7.1	20.0				
Iodomethane	0.3086 0.3409	0.3325 0.3671	0.3285 0.3511	0.3438	0.3304	Ave		0.3379			0.0100	5.1	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.: 180-47984-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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													
Carbon disulfide	0.5727 0.6930	0.5928 0.7451	0.6074 0.7142	0.6519	0.6407	Ave		0.6522			0.1000	9.4	20.0				
Allyl chloride	0.1218 0.1547	0.1181 0.1646	0.1364 0.1606	0.1388	0.1402	Ave		0.1419			0.0100	12.0	20.0				
Methyl acetate	0.2192 0.2022	0.2017 0.2144	0.2047 0.2065	0.2072	0.2036	Ave		0.2074			0.1000	3.0	20.0				
Methylene Chloride	0.6631 0.3174	0.3874 0.3424	0.3361 0.3218	0.3366	0.3254	Lin2	1.7443	0.3138			0.1000			0.9990		0.9900	
tert-Butyl alcohol	1.2140 1.0554	1.0995 1.1213	1.1428 1.0861	1.1107	1.1728	Ave		1.1253			0.0100	4.5	20.0				
Acrylonitrile	0.1067 0.1050	0.1002 0.1099	0.1033 0.1041	0.1042	0.1030	Ave		0.1046			0.0100	2.7	20.0				
trans-1,2-Dichloroethene	0.2889 0.2884	0.2883 0.3069	0.2879 0.2909	0.2950	0.2774	Ave		0.2905			0.1000	2.9	20.0				
Methyl tert-butyl ether	0.8998 0.8761	0.8047 0.9451	0.8127 0.8903	0.8782	0.8559	Ave		0.8703			0.1000	5.3	20.0				
Hexane	0.4211 0.4030	0.3676 0.4125	0.3850 0.3998	0.3938	0.3659	Ave		0.3936			0.0100	5.0	20.0				
1,1-Dichloroethane	0.5075 0.5187	0.5138 0.5491	0.5187 0.5191	0.5246	0.5085	Ave		0.5200			0.2000	2.5	20.0				
Vinyl acetate	0.3814 0.4481	0.3469 0.4857	0.3831 0.4671	0.4180	0.4276	Ave		0.4197			0.0100	11.2	20.0				
2,2-Dichloropropane	0.2106 0.2916	0.2324 0.2998	0.2516 0.2938	0.2636	0.2601	Ave		0.2629			0.0100	12.0	20.0				
cis-1,2-Dichloroethene	0.3288 0.3134	0.2997 0.3336	0.3121 0.3178	0.3154	0.3061	Ave		0.3158			0.1000	3.5	20.0				
2-Butanone (MEK)	0.1157 0.1241	0.1112 0.1317	0.1112 0.1244	0.1274	0.1201	Ave		0.1207			0.0500	6.2	20.0				
Bromochloromethane	0.1341 0.1264	0.1227 0.1349	0.1194 0.1303	0.1248	0.1226	Ave		0.1269			0.0100	4.5	20.0				
Tetrahydrofuran	0.0899 0.0835	0.0679 0.0856	0.0729 0.0875	0.0830	0.0802	Ave		0.0813			0.0100	9.2	20.0				
Chloroform	0.5240 0.5101	0.5110 0.5372	0.5156 0.5057	0.5231	0.5023	Ave		0.5161			0.2000	2.2	20.0				
1,1,1-Trichloroethane	0.3298 0.3969	0.3454 0.4238	0.3768 0.4049	0.3936	0.3797	Ave		0.3814			0.1000	8.1	20.0				
Cyclohexane	0.4970 0.5019	0.4468 0.5151	0.4891 0.4904	0.5075	0.4613	Ave		0.4886			0.1000	4.8	20.0				
Carbon tetrachloride	0.2286 0.2886	0.2478 0.3002	0.2596 0.2920	0.2763	0.2618	Ave		0.2694			0.1000	9.1	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.: 180-47984-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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														
1,1-Dichloropropene	0.3926 0.4066	0.3932 0.4288	0.4179 0.4097	0.4260	0.4065	Ave		0.4102			0.0100	3.3	20.0				
Isobutyl alcohol	0.0064 0.0079	0.0060 0.0084	0.0067 0.0082	0.0069	0.0074	Ave		0.0072		*	0.0100	12.0	20.0				
Benzene	1.3108 1.1051	1.1747 1.1573	1.1838 1.0686	1.1862	1.1360	Ave		1.1653			0.5000	6.1	20.0				
1,2-Dichloroethane	0.5170 0.4491	0.4680 0.4788	0.4635 0.4465	0.4749	0.4571	Ave		0.4694			0.1000	4.8	20.0				
n-Heptane	0.3283 0.3166	0.2930 0.3296	0.3187 0.3201	0.3273	0.3009	Ave		0.3168			0.0100	4.2	20.0				
Trichloroethene	0.2495 0.2439	0.2242 0.2580	0.2340 0.2443	0.2514	0.2390	Ave		0.2430			0.2000	4.4	20.0				
Methylcyclohexane	0.4988 0.5022	0.4670 0.5125	0.4962 0.4944	0.5026	0.4718	Ave		0.4932			0.1000	3.2	20.0				
1,2-Dichloropropane	0.3004 0.2740	0.2605 0.2918	0.2603 0.2810	0.2821	0.2771	Ave		0.2784			0.1000	5.0	20.0				
1,4-Dioxane	0.0025 0.0030	0.0022 0.0032	0.0027 0.0030	0.0026	0.0028	Ave		0.0027		*	0.0100	11.1	20.0				
Dibromomethane	0.1697 0.1704	0.1570 0.1809	0.1594 0.1730	0.1722	0.1697	Ave		0.1690			0.0100	4.5	20.0				
Bromodichloromethane	0.2616 0.3321	0.2926 0.3618	0.2967 0.3476	0.3256	0.3231	Ave		0.3176			0.2000	10.2	20.0				
cis-1,3-Dichloropropene	0.2584 0.3913	0.2782 0.4177	0.3074 0.4064	0.3604	0.3717	Ave		0.3489			0.2000	17.3	20.0				
4-Methyl-2-pentanone (MIBK)	0.8987 1.0658	0.9802 1.1445	0.9985 1.0527	1.0544	1.0284	Ave		1.0279			0.1000	7.0	20.0				
Toluene	5.9056 4.7537	5.5995 4.8374	5.4167 4.3396	5.4012	5.0191	Ave		5.1591			0.4000	9.9	20.0				
trans-1,3-Dichloropropene	0.8702 1.4914	1.1099 1.5454	1.1917 1.4764	1.4148	1.3777	Ave		1.3097			0.1000	17.8	20.0				
Ethyl methacrylate	1.0584 1.5306	1.1597 1.6211	1.2934 1.5074	1.4730	1.4851	Ave		1.3911			0.0100	14.3	20.0				
1,1,2-Trichloroethane	1.1649 1.0331	1.0986 1.0808	1.0395 0.9995	1.0976	1.0221	Ave		1.0670			0.1000	5.0	20.0				
Tetrachloroethene	0.9697 0.8437	0.9092 0.8645	0.8932 0.8142	0.9113	0.8341	Ave		0.8800			0.2000	5.8	20.0				
1,3-Dichloropropane	2.1051 1.8922	2.0770 1.9466	1.9733 1.8014	2.0412	1.9340	Ave		1.9713			0.0100	5.1	20.0				
2-Hexanone	0.5961 0.7048	0.6359 0.7303	0.6480 0.6962	0.7009	0.6879	Ave		0.6750			0.1000	6.6	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.: 180-47984-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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	0.4970 0.7956	0.6594 0.8501	0.6992 0.7965	0.7868	0.7414	Ave		0.7283			0.1000	15.3	20.0				
1,2-Dibromoethane (EDB)	0.9377 0.9584	0.9062 1.0009	0.8845 0.9279	0.9777	0.9601	Ave		0.9442			0.1000	4.0	20.0				
3-Chlorobenzotrifluoride	1.9346 1.5843	1.7960 1.5900	1.7022 1.3868	1.6742	1.5483	Ave		1.6520			0.0100	10.1	20.0				
Chlorobenzene	3.5287 3.0123	3.3662 3.0694	3.2495 2.7949	3.2738	3.0742	Ave		3.1711			0.5000	7.2	20.0				
4-Chlorobenzotrifluoride	1.6752 1.5041	1.6791 1.5135	1.5757 1.3040	1.5621	1.4356	Ave		1.5312			0.0100	8.1	20.0				
1,1,1,2-Tetrachloroethane	0.6900 0.9213	0.8149 0.9909	0.8845 0.9158	0.8859	0.8746	Ave		0.8691			0.0100	10.2	20.0				
Ethylbenzene	1.8948 1.7498	1.7825 1.8007	1.8382 1.6637	1.8404	1.7406	Ave		1.7888			0.1000	4.0	20.0				
m-Xylene & p-Xylene	2.2690 2.1710	2.2783 2.2282	2.2514 2.0794	2.2987	2.1836	Ave		2.2200			0.1000	3.3	20.0				
o-Xylene	2.1401 2.1982	2.2838 2.2768	2.2497 2.0945	2.3260	2.1995	Ave		2.2211			0.3000	3.5	20.0				
Styrene	3.0262 3.3999	3.5063 3.5053	3.5865 3.2169	3.6244	3.4204	Ave		3.4107			0.3000	5.9	20.0				
Bromoform	0.2774 0.4245	0.3854 0.4551	0.3553 0.4390	0.3847	0.3885	Ave		0.3887			0.1000	14.3	20.0				
2-Chlorobenzotrifluoride	1.7789 1.6566	1.8882 1.6800	1.7229 1.4654	1.7518	1.5913	Ave		1.6919			0.0100	7.5	20.0				
Isopropylbenzene	5.2778 5.0660	5.7181 5.1776	5.7365 4.6086	5.7208	5.2098	Ave		5.3144			0.1000	7.4	20.0				
1,1,2,2-Tetrachloroethane	1.4524 1.4044	1.5283 1.4375	1.4123 1.3480	1.4533	1.3845	Ave		1.4276			0.3000	3.8	20.0				
Bromobenzene	0.8149 0.7981	0.7780 0.8354	0.7958 0.7913	0.8100	0.8070	Ave		0.8038			0.0100	2.1	20.0				
trans-1,4-Dichloro-2-butene	0.2183 0.2782	0.2316 0.2872	0.2398 0.2842	0.2451	0.2549	Ave		0.2549			0.0100	10.1	20.0				
1,2,3-Trichloropropane	0.3115 0.3095	0.3103 0.3168	0.2929 0.3057	0.3005	0.2983	Ave		0.3057			0.0100	2.6	20.0				
N-Propylbenzene	0.8326 0.9631	0.8814 0.9609	0.9454 0.9440	0.9506	0.9278	Ave		0.9257			0.0100	4.9	20.0				
2-Chlorotoluene	0.7094 0.7751	0.7465 0.7992	0.7798 0.7755	0.7871	0.7761	Ave		0.7686			0.0100	3.7	20.0				
3-Chlorotoluene	0.7543 0.8420	0.8134 0.8337	0.8056 0.7727	0.8118	0.8241	Ave		0.8072			0.0100	3.7	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.: 180-47984-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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 8	LVL 5												
1,3,5-Trimethylbenzene	2.7736 3.0025	3.0962 3.0472	3.1690 2.8036	3.1761	3.0091	Ave		3.0097			0.0100	5.0	20.0				
4-Chlorotoluene	0.7667 0.8064	0.7905 0.8463	0.8267 0.8136	0.8328	0.8125	Ave		0.8119			0.0100	3.1	20.0				
tert-Butylbenzene	2.1654 2.4390	2.2766 2.4763	2.4320 2.3179	2.5249	2.3935	Ave		2.3782			0.0100	5.0	20.0				
1,2,4-Trimethylbenzene	2.6641 3.0999	3.1580 3.1389	3.2410 2.8935	3.2855	3.1393	Ave		3.0775			0.0100	6.6	20.0				
3,4-Dichlorobenzotrifluoride	0.9506 0.8837	0.9051 0.8812	0.8433 0.8086	0.8848	0.8177	Ave		0.8719			0.0100	5.4	20.0				
sec-Butylbenzene	3.1858 3.5384	3.7184 3.5357	3.7627 3.2573	3.8203	3.5793	Ave		3.5497			0.0100	6.4	20.0				
1,3-Dichlorobenzene	1.6112 1.5388	1.6196 1.5936	1.5650 1.5066	1.5844	1.5419	Ave		1.5701			0.6000	2.5	20.0				
4-Isopropyltoluene	2.5478 3.0138	2.9539 3.0592	3.1574 2.8450	3.2053	3.0463	Ave		2.9786			0.0100	6.9	20.0				
1,4-Dichlorobenzene	1.6477 1.5662	1.6451 1.6298	1.6095 1.5306	1.6252	1.5856	Ave		1.6050			0.5000	2.6	20.0				
2,4-Dichlorobenzotrifluoride	0.8809 0.9283	0.9010 0.9168	0.8399 0.7625	0.8415	0.8683	Ave		0.8674			0.0100	6.1	20.0				
2,5-Dichlorobenzotrifluoride	1.1148 0.9323	0.9613 0.9470	0.9883 0.9297	0.9952	0.8812	Ave		0.9687			0.0100	7.1	20.0				
n-Butylbenzene	2.7413 3.0098	2.9731 3.0263	3.1192 2.7966	3.1553	2.9714	Ave		2.9741			0.0100	4.8	20.0				
1,2-Dichlorobenzene	1.7344 1.5614	1.6042 1.5872	1.5781 1.4856	1.5970	1.5347	Ave		1.5853			0.4000	4.5	20.0				
1,2-Dibromo-3-Chloropropane	0.1041 0.1673	0.1254 0.1741	0.1287 0.1752	0.1449	0.1432	Ave		0.1454			0.0500	17.6	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	1.3659 1.3828	1.4490 1.3691	1.4643 1.2123	1.4309	1.3634	Ave		1.3797			0.0100	5.7	20.0				
2,3- & 3,4- Dichlorotoluene	1.4220 1.5594	1.5913 1.5578	1.5507 1.4014	1.5802	1.5161	Ave		1.5224			0.0100	4.7	20.0				
1,2,4-Trichlorobenzene	1.1743 1.2613	1.2132 1.2999	1.2170 1.2151	1.2351	1.2123	Ave		1.2285			0.2000	3.1	20.0				
Hexachlorobutadiene	0.4483 0.5040	0.4710 0.5079	0.4894 0.4926	0.4879	0.4705	Ave		0.4839			0.0100	4.1	20.0				
Naphthalene	1.9638 2.6901	2.2408 2.7319	2.4855 2.5560	2.6099	2.5577	Ave		2.4795			0.0100	10.3	20.0				
1,2,3-Trichlorobenzene	1.1813 1.1689	1.1348 1.2045	1.1056 1.1331	1.1438	1.1242	Ave		1.1495			0.0100	2.8	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.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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	0.6523 0.8517	0.6908 0.8911	0.7114 0.8098	0.7914	0.7765	Ave		0.7719			0.0100	10.6		20.0			
2,3,6-Trichlorotoluene	0.6747 0.7987	0.6373 0.8256	0.7048 0.7502	0.7418	0.7252	Ave		0.7323			0.0100	8.4		20.0			
Dibromofluoromethane (Surr)	0.2580 0.2278	0.2120 0.2401	0.2284 0.2160	0.2307	0.2293	Ave		0.2303				6.2		20.0			
1,2-Dichloroethane-d4 (Surr)	0.4370 0.3580	0.3544 0.3741	0.3729 0.3410	0.3684	0.3665	Ave		0.3715				7.7		20.0			
Toluene-d8 (Surr)	4.4422 3.7317	4.0733 3.7760	4.2664 3.2298	4.1020	3.9291	Ave		3.9438				9.5		20.0			
4-Bromofluorobenzene (Surr)	2.0841 1.7019	1.7074 1.7446	1.7653 1.5225	1.7965	1.6857	Ave		1.7510				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  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-149469/14	60731014.D
Level 2	IC 180-149469/4	60731004.D
Level 3	ICIS 180-149469/5	60731005.D
Level 4	IC 180-149469/6	60731006.D
Level 5	IC 180-149469/7	60731007.D
Level 6	IC 180-149469/8	60731008.D
Level 7	IC 180-149469/9	60731009.D
Level 8	IC 180-149469/10	60731010.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	17276 575043	76046 636192	166146 776950	255750	316945	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	15485 470953	70391 522516	147560 661756	208858	278884	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	15792 517410	75541 585198	154423 729853	233901	292173	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	15290 483297	72002 538199	146675 668636	214248	274693	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	9521 248522	42916 263364	89628 +++++	123705	158589	5.00 175	25.0 200	50.0 +++++	75.0	100
Chloroethane	FB	Ave	9922 359701	52119 402907	111283 495382	159781	198857	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	24941 819476	126043 899692	250823 1120159	372545	463283	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	19389 664854	96092 726249	206141 914267	296881	367084	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	14586 458021	67458 523507	136903 666334	202583	269465	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	28320 68050	35802 76429	43327 88331	52894	54177	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11872 411177	55817 476887	118856 604031	180424	234083	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	13209 446711	60462 481169	126375 613669	188852	241359	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	22203 284563	43121 317270	76252 446823	117975	166807	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	14090 566533	76980 655616	159542 830188	243211	318736	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	26146 1151644	137245 1330649	294989 1688724	461167	618168	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.: 180-47984-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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
Allyl chloride	FB	Ave	5562 257112	27346 293887	66228 379717	98190	135273	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	50033 1680300	233460 1914014	497011 2441128	732698	982363	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	30274 527474	89699 611401	163213 760977	238130	313904	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	9874 354063	43837 426462	91997 559063	141735	198055	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	48723 1745686	231943 1961872	501701 2461613	737397	994141	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	13191 479327	66744 548086	139824 687783	208665	267617	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	41079 1455878	186303 1687770	394698 2105039	621185	825760	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	19223 669795	85113 736641	186977 945322	278592	352983	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	23168 861981	118950 980644	251887 1227440	371113	490563	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	17413 744628	80307 867464	186047 1104555	295714	412541	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9613 484574	53806 535345	122189 694588	186450	250901	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	15010 520777	69383 595718	151575 751398	223081	295290	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	26408 412307	51510 470276	108037 588377	180292	231667	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	6120 209995	28403 240962	58005 308059	88252	118290	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	8204 277489	31436 305718	70787 413888	117489	154776	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	23924 847765	118313 959266	250393 1195678	370042	484585	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	15055 659562	79977 756837	182973 957300	278390	366376	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	22688 834057	103455 919827	237539 1159567	359010	445084	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	10435 479558	57375 536127	126096 690480	195436	252588	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	17924 675711	91039 765806	202951 968671	301319	392146	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	7317 326401	34707 375937	81470 482886	122452	178080	125 4375	625 5000	1250 6250	1875	2500



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh

Job No.: 180-47984-1

Analy Batch No.: 149469

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

Instrument ID: CHHP6

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00

Calibration End Date: 07/31/2015 18:02

Calibration ID: 24897

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
Benzene	FB	Ave	59844 1836424	271972 2066671	574901 2526807	839117	1096030	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	23604 746328	108353 855052	225116 1055651	335915	440984	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	14990 526126	67835 588643	154761 756814	231524	290327	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	11389 405251	51907 460676	113666 577638	177868	230554	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	22772 834543	108113 915285	240977 1169092	355558	455180	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	13712 455391	60301 521174	126414 664355	199527	267345	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2321 98136	10219 114196	26388 139772	36545	54577	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	7749 283101	36346 323060	77394 409028	121844	163719	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	11941 551929	67754 646107	144075 821950	230314	311750	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	11797 650196	64404 745866	149301 960857	254907	358605	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	42150 808342	90891 947711	208546 1194590	330779	452681	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	55394 1802740	259618 2002822	565645 2462377	847209	1104648	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	8162 565592	51458 639831	124444 837722	221914	303226	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	9928 580427	53768 671187	135064 855316	231048	326852	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	10927 391776	50938 447467	108552 567107	172158	224945	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	9096 319955	42156 357911	93269 461983	142949	183568	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	19746 717566	96298 805963	206060 1022129	320167	425660	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	27957 534519	58962 604727	135329 790089	219895	302805	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	4662 301710	30573 351983	73014 451973	123420	163175	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8796 363449	42016 414395	92363 526477	153351	211303	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	18146 600793	83271 658293	177755 786880	262608	340769	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.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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	CBZ	Ave	33099 1142353	156070 1270819	339330 1585885	513514	676590	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15713 570403	77852 626628	164547 739908	245021	315960	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	6472 349368	37781 410261	89710 519653	138964	192497	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	17773 663577	82647 745552	191951 943999	288675	383099	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	21283 823294	105633 922542	235109 1179895	360561	480587	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	20074 833629	105888 942660	234926 1188451	364838	484093	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	28385 1289309	162570 1451301	374525 1825312	568513	752806	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	2602 160966	17870 188413	37102 249108	60348	85498	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	16686 628216	87545 695569	179913 831476	274773	350232	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	49505 1921153	265117 2143689	599038 2614965	897341	1146617	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	13623 532593	70858 595171	147479 764885	227964	304710	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	12814 459843	61847 533334	136094 665597	203181	276525	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3433 160304	18413 183338	41001 239026	61474	87362	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4898 178317	24668 202262	50085 257089	75371	102213	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	13092 554932	70063 613443	161671 793964	238465	317924	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11155 446590	59338 510216	133354 652311	197431	265955	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	11861 485130	64658 532252	137766 649907	203636	282386	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	43612 1730016	246129 1945327	541915 2358116	796704	1031152	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	12056 464650	62837 540303	141377 684319	208897	278435	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	34048 1405341	180978 1580824	415895 1949627	633351	820194	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	41890 1786151	251042 2003823	554224 2433681	824147	1075766	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.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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	DCB	Ave	14947 509173	71946 562570	144215 680073	221955	280215	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	50094 2038837	295586 2257148	643438 2739728	958306	1226548	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	25334 886632	128745 1017363	267626 1267194	397446	528372	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	40061 1736569	234813 1952987	539941 2392925	804039	1043904	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	25908 902441	130776 1040432	275229 1287354	407678	543357	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	13852 534909	71623 585295	143623 641375	211084	297534	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	17529 537191	76420 604585	169006 781945	249633	301973	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	43104 1734264	236342 1931969	533401 2352259	791496	1018212	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	27271 899668	127520 1013269	269873 1249514	400593	525918	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1637 96376	9971 111156	22010 147337	36339	49062	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCB	Ave	64430 2390336	345570 2621988	751227 3058923	1076776	1401616	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCB	Ave	44720 1797097	252992 1989024	530353 2357462	792789	1039069	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCB	Ave	18465 726756	96442 829845	208112 1022001	309817	415442	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	7049 290426	37440 324236	83692 414314	122376	161228	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	30879 1550041	178131 1744010	425036 2149836	654694	876449	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	18575 673533	90206 768952	189066 953082	286920	385220	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	10257 490754	54916 568870	121646 681135	198517	266093	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	10609 460224	50658 527070	120523 630961	186087	248497	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	11777 378487	49079 428779	110929 510673	163209	221245	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	19952 595019	82044 668015	181120 806396	260570	353626	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	41667 1415164	188855 1563368	445521 1832665	643420	864751	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.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

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)	CBZ	Ave	19549 645419	79163 722308	184340 863895	281797	371000	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.: 180-47984-1 Analy Batch No.: 149469

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

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2015 14:00 Calibration End Date: 07/31/2015 18:02 Calibration ID: 24897

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-149469/14	60731014.D
Level 2	IC 180-149469/4	60731004.D
Level 3	ICIS 180-149469/5	60731005.D
Level 4	IC 180-149469/6	60731006.D
Level 5	IC 180-149469/7	60731007.D
Level 6	IC 180-149469/8	60731008.D
Level 7	IC 180-149469/9	60731009.D
Level 8	IC 180-149469/10	60731010.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				
Methylene Chloride	0.2	1.2	-4.0	-0.1	-1.9	-2.0	40	40	40	40	40	40
	6.3	0.3					40	40				

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D  
 Lims ID: IC VSTD5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 31-Jul-2015 14:00:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD5  
 Misc. Info.: 180-0007999-004  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:33 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 31-Jul-2015 16:26:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.245	4.248	-0.003	91	159479	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.284	0.002	98	463046	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.398	-0.003	92	92729	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.747	-0.004	97	158987	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.554	0.002	68	49079	25.0	23.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.931	0.003	54	82044	25.0	23.8	
\$ 7 Toluene-d8 (Surr)	98	8.941	8.938	0.003	93	188855	25.0	25.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.585	0.002	81	79163	25.0	24.4	
11 Dichlorodifluoromethane	85	1.611	1.608	0.002	99	76046	25.0	23.7	
12 Chloromethane	50	1.757	1.754	0.003	100	70391	25.0	25.5	
13 Vinyl chloride	62	1.884	1.888	-0.004	98	75541	25.0	25.4	
14 Butadiene	39	1.933	1.930	0.003	92	72002	25.0	25.8	
15 Bromomethane	94	2.231	2.228	0.003	91	42916	25.0	26.7	M
16 Chloroethane	64	2.377	2.368	0.009	98	52119	25.0	25.7	
17 Dichlorofluoromethane	67	2.651	2.648	0.003	97	126043	25.0	26.7	
18 Trichlorofluoromethane	101	2.669	2.660	0.009	85	96092	25.0	25.5	
20 Ethyl ether	59	3.046	3.049	-0.003	88	67458	25.0	25.2	
21 Acrolein	56	3.223	3.220	0.003	97	35802	125.0	122.8	
22 1,1-Dichloroethene	96	3.338	3.341	-0.003	95	55817	25.0	23.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.393	3.390	0.003	94	60462	25.0	24.6	
24 Acetone	43	3.429	3.421	0.008	99	43121	50.0	52.6	
25 Iodomethane	142	3.539	3.536	0.003	97	76980	25.0	24.6	
26 Carbon disulfide	76	3.636	3.627	0.009	100	137245	25.0	22.7	
29 3-Chloro-1-propene	76	3.922	3.919	0.003	61	27346	25.0	20.8	
30 Methyl acetate	43	3.934	3.926	0.008	97	233460	125.0	121.5	
31 Methylene Chloride	84	4.135	4.132	0.003	92	89699	25.0	25.3	
32 2-Methyl-2-propanol	59	4.366	4.370	-0.004	93	43837	250.0	244.3	
33 Acrylonitrile	53	4.500	4.503	-0.003	100	231943	250.0	239.5	
34 trans-1,2-Dichloroethene	96	4.555	4.564	-0.009	95	66744	25.0	24.8	
35 Methyl tert-butyl ether	73	4.573	4.576	-0.003	97	186303	25.0	23.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.990	-0.003	94	85113	25.0	23.4	
37 1,1-Dichloroethane	63	5.206	5.197	0.009	97	118950	25.0	24.7	
38 Vinyl acetate	43	5.236	5.240	-0.004	97	80307	25.0	20.7	
43 cis-1,2-Dichloroethene	96	5.948	5.939	0.009	84	69383	25.0	23.7	
44 2-Butanone (MEK)	43	5.948	5.945	0.003	56	51510	50.0	46.1	
42 2,2-Dichloropropane	77	5.942	5.945	-0.003	59	53806	25.0	22.1	
48 Chlorobromomethane	128	6.228	6.231	-0.003	94	28403	25.0	24.2	
49 Tetrahydrofuran	42	6.240	6.249	-0.009	81	31436	50.0	41.7	
50 Chloroform	83	6.368	6.371	-0.003	93	118313	25.0	24.8	
51 1,1,1-Trichloroethane	97	6.538	6.541	-0.003	96	79977	25.0	22.6	
52 Cyclohexane	56	6.611	6.620	-0.009	93	103455	25.0	22.9	
53 Carbon tetrachloride	117	6.708	6.718	-0.010	98	57375	25.0	23.0	
54 1,1-Dichloropropene	75	6.727	6.724	0.003	94	91039	25.0	24.0	
55 Isobutyl alcohol	41	6.903	6.900	0.003	95	34707	625.0	518.1	
56 Benzene	78	6.940	6.943	-0.003	97	271972	25.0	25.2	
57 1,2-Dichloroethane	62	7.019	7.016	0.003	98	108353	25.0	24.9	
59 n-Heptane	43	7.311	7.308	0.003	89	67835	25.0	23.1	
61 Trichloroethene	130	7.676	7.679	-0.003	92	51907	25.0	23.1	
63 Methylcyclohexane	83	7.925	7.922	0.003	91	108113	25.0	23.7	
64 1,2-Dichloropropane	63	7.949	7.953	-0.004	95	60301	25.0	23.4	
65 1,4-Dioxane	88	8.029	8.032	-0.003	40	10219	500.0	401.6	M
67 Dibromomethane	93	8.035	8.038	-0.003	91	36346	25.0	23.2	
68 Dichlorobromomethane	83	8.235	8.227	0.008	98	67754	25.0	23.0	
71 cis-1,3-Dichloropropene	75	8.673	8.677	-0.004	92	64404	25.0	19.9	
72 4-Methyl-2-pentanone (MIBK)	43	8.826	8.823	0.003	95	90891	50.0	47.7	
73 Toluene	91	9.008	9.011	-0.003	97	259618	25.0	27.1	
74 trans-1,3-Dichloropropene	75	9.257	9.255	0.002	97	51458	25.0	21.2	
75 Ethyl methacrylate	69	9.312	9.315	-0.003	86	53768	25.0	20.8	
76 1,1,2-Trichloroethane	97	9.446	9.449	-0.003	96	50938	25.0	25.7	
77 Tetrachloroethene	164	9.525	9.522	0.003	92	42156	25.0	25.8	
78 1,3-Dichloropropane	76	9.604	9.607	-0.003	92	96298	25.0	26.3	
79 2-Hexanone	43	9.659	9.656	0.003	97	58962	50.0	47.1	
81 Chlorodibromomethane	129	9.817	9.826	-0.009	92	30573	25.0	22.6	
82 Ethylene Dibromide	107	9.939	9.942	-0.003	97	42016	25.0	24.0	
83 3-Chlorobenzotrifluoride	180	10.395	10.392	0.003	89	83271	25.0	27.2	
84 Chlorobenzene	112	10.425	10.429	-0.004	91	156070	25.0	26.5	
85 4-Chlorobenzotrifluoride	180	10.480	10.483	-0.003	95	77852	25.0	27.4	
86 1,1,1,2-Tetrachloroethane	131	10.523	10.520	0.003	87	37781	25.0	23.4	
87 Ethylbenzene	106	10.529	10.526	0.003	99	82647	25.0	24.9	
88 m-Xylene & p-Xylene	106	10.657	10.660	-0.003	99	105633	25.0	25.7	
89 o-Xylene	106	11.040	11.043	-0.003	98	105888	25.0	25.7	
90 Styrene	104	11.058	11.061	-0.003	94	162570	25.0	25.7	
91 Bromoform	173	11.241	11.244	-0.003	94	17870	25.0	24.8	
92 2-Chlorobenzotrifluoride	180	11.308	11.305	0.003	95	87545	25.0	27.9	
93 Isopropylbenzene	105	11.405	11.408	-0.003	97	265117	25.0	26.9	
96 1,1,2,2-Tetrachloroethane	83	11.715	11.712	0.003	94	70858	25.0	26.8	
95 Bromobenzene	156	11.721	11.725	-0.004	97	61847	25.0	24.2	
97 trans-1,4-Dichloro-2-buten	53	11.752	11.749	0.003	66	18413	25.0	22.7	
98 1,2,3-Trichloropropane	110	11.770	11.767	0.003	86	24668	25.0	25.4	
99 N-Propylbenzene	120	11.825	11.828	-0.003	99	70063	25.0	23.8	
100 2-Chlorotoluene	126	11.916	11.913	0.003	94	59338	25.0	24.3	
101 3-Chlorotoluene	126	11.977	11.980	-0.003	97	64658	25.0	25.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.007	12.010	-0.003	92	246129	25.0	25.7	
103 4-Chlorotoluene	126	12.038	12.041	-0.003	98	62837	25.0	24.3	
104 tert-Butylbenzene	119	12.323	12.321	0.002	90	180978	25.0	23.9	
106 1,2,4-Trimethylbenzene	105	12.384	12.382	0.002	97	251042	25.0	25.7	
107 1,2-dichloro-4-(trifluorom	214	12.421	12.418	0.003	95	71946	25.0	26.0	
108 sec-Butylbenzene	105	12.549	12.546	0.003	96	295586	25.0	26.2	
109 1,3-Dichlorobenzene	146	12.664	12.667	-0.003	93	128745	25.0	25.8	
110 4-Isopropyltoluene	119	12.707	12.704	0.003	96	234813	25.0	24.8	
111 1,4-Dichlorobenzene	146	12.768	12.771	-0.003	89	130776	25.0	25.6	
113 2,4-Dichloro-1-(trifluorom	214	12.792	12.789	0.003	94	71623	25.0	26.0	
114 2,5-Dichlorobenzotrifluori	214	12.828	12.832	-0.004	96	76420	25.0	24.8	
116 n-Butylbenzene	91	13.114	13.112	0.002	98	236342	25.0	25.0	
117 1,2-Dichlorobenzene	146	13.120	13.124	-0.004	91	127520	25.0	25.3	
118 1,2-Dibromo-3-Chloropropan	75	13.911	13.921	-0.010	62	9971	25.0	21.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.061	0.002	98	345570	75.0	78.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.471	14.474	-0.003	99	252992	50.0	52.3	
122 1,2,4-Trichlorobenzene	180	14.745	14.736	0.009	92	96442	25.0	24.7	
123 Hexachlorobutadiene	225	14.891	14.888	0.003	96	37440	25.0	24.3	
124 Naphthalene	128	15.006	15.004	0.002	98	178131	25.0	22.6	
125 1,2,3-Trichlorobenzene	180	15.231	15.229	0.002	95	90206	25.0	24.7	
126 2,4,5-Trichlorotoluene	159	16.004	16.007	-0.003	0	54916	25.0	22.4	
127 2,3,6-Trichlorotoluene	159	16.107	16.111	-0.004	91	50658	25.0	21.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	48.5	
S 131 Xylenes, Total	106				0		50.0	51.4	
S 132 1,3-Dichloropropene, Total	1				0		50.0	41.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 1.00	Units: uL	
voaWket1Reste_00001	Amount Added: 1.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 1.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 1.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 1.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 5.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D

Injection Date: 31-Jul-2015 14:00:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD5

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

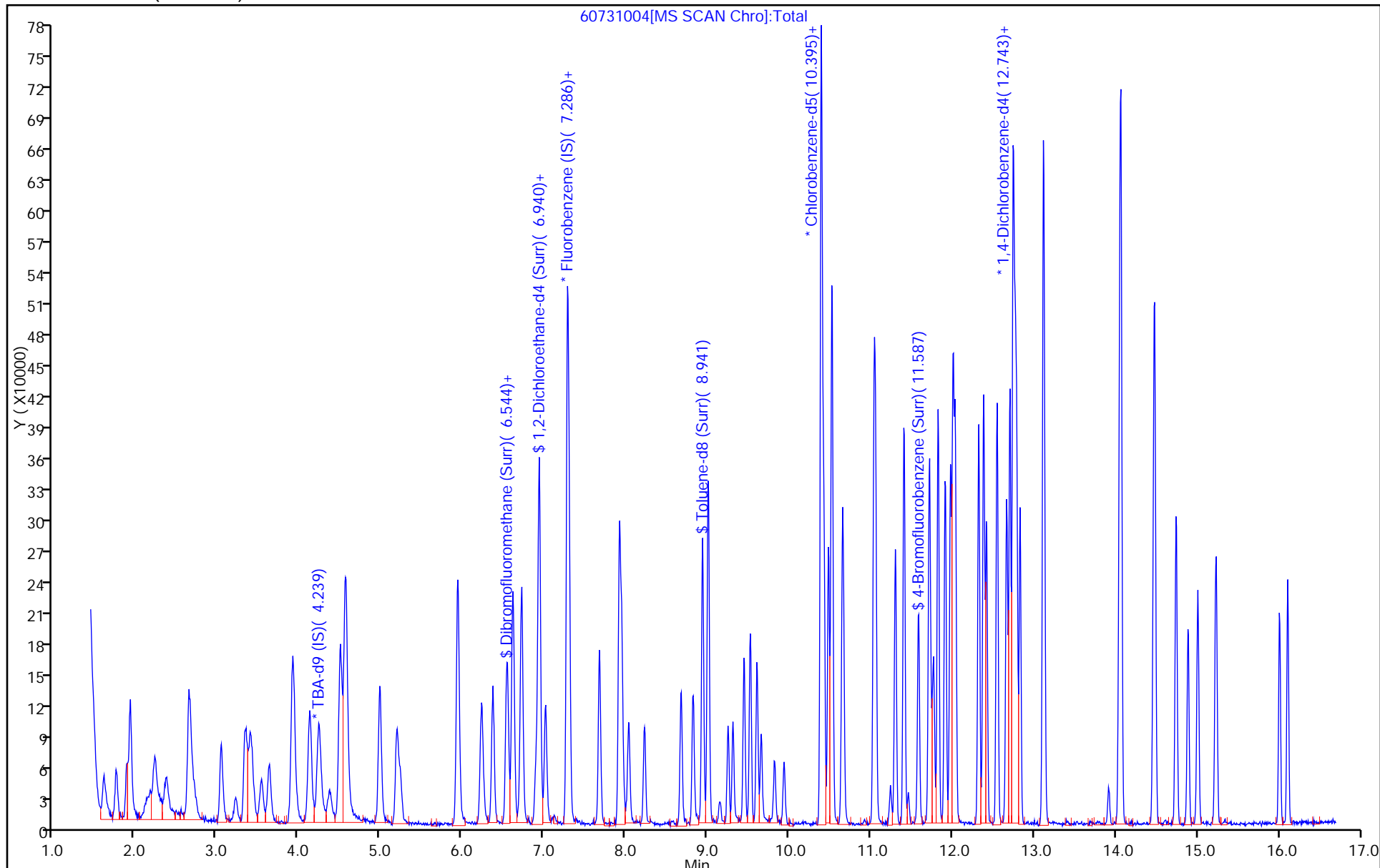
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



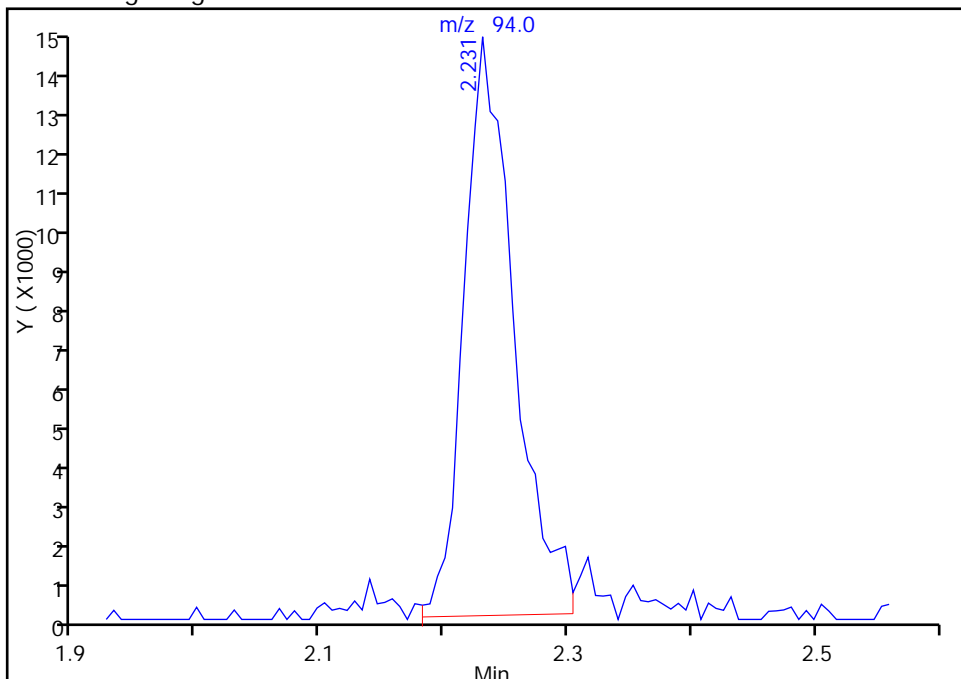
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D  
Injection Date: 31-Jul-2015 14:00:30 Instrument ID: CHHP6  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

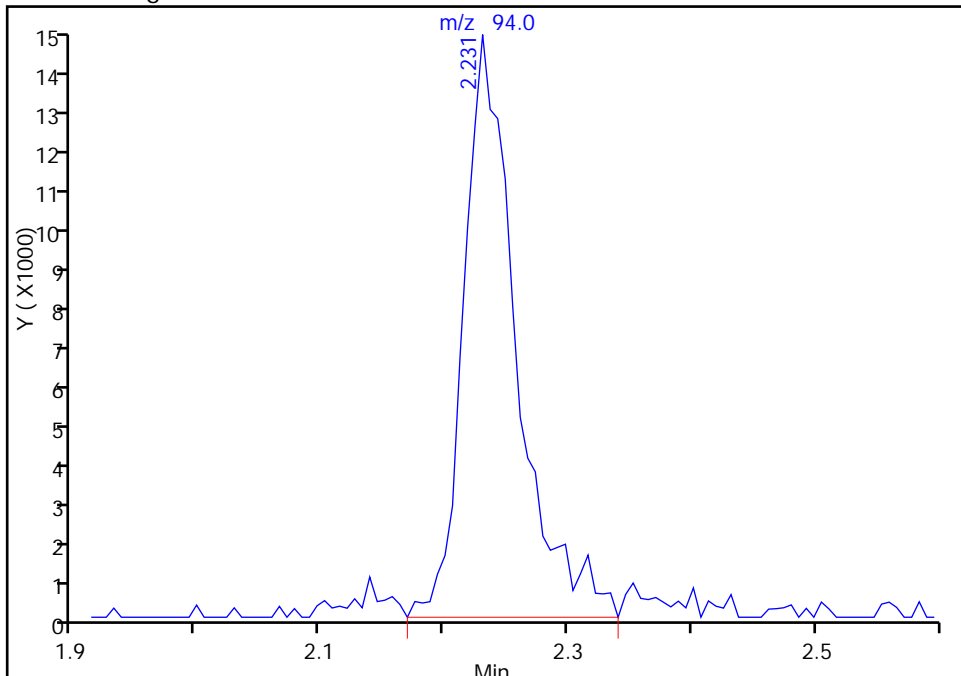
RT: 2.23  
Area: 40394  
Amount: 23.319863  
Amount Units: ng

Processing Integration Results



RT: 2.23  
Area: 42916  
Amount: 26.704234  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:46:01  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

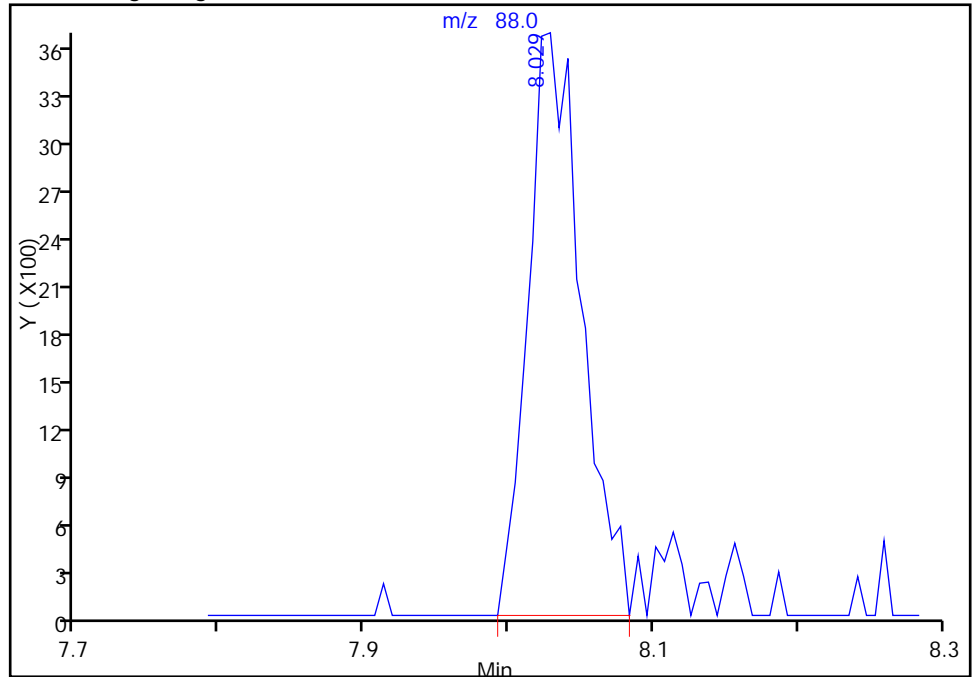
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731004.D  
Injection Date: 31-Jul-2015 14:00:30 Instrument ID: CHHP6  
Lims ID: IC VSTD5  
Client ID:  
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 4  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

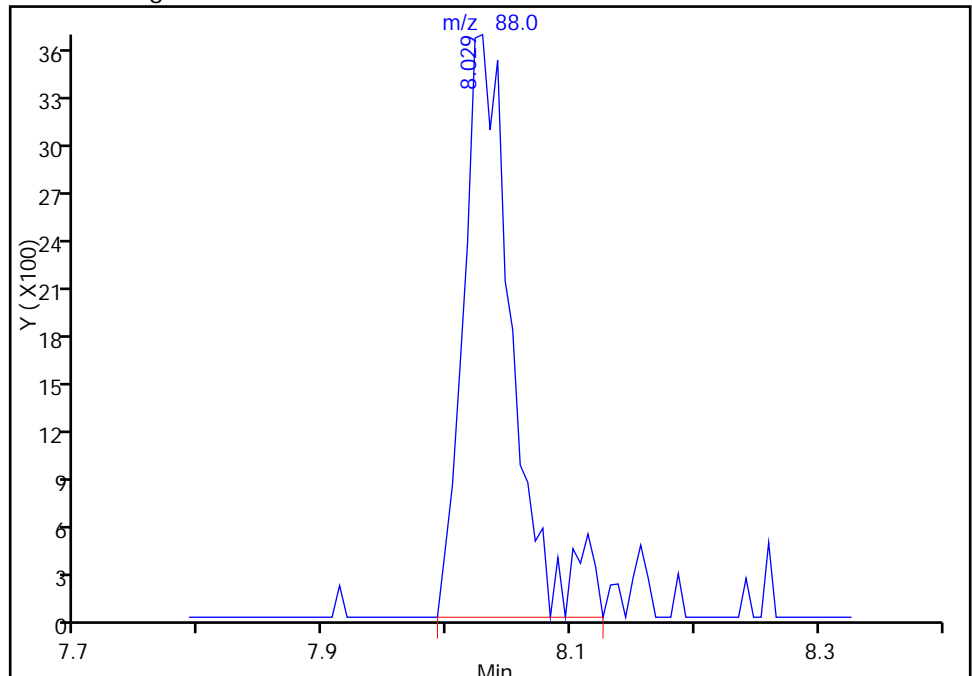
RT: 8.03  
Area: 9488  
Amount: 365.3313  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 10219  
Amount: 401.5715  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:46:01  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D  
 Lims ID: ICIS VSTD10  
 Client ID:  
 Sample Type: ICIS Calib Level: 3  
 Inject. Date: 31-Jul-2015 14:24:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: ICIS VSTD10  
 Misc. Info.: 180-0007999-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:56:50 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 12:15:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.248	4.248	0.000	92	161009	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	485657	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	104426	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	94	171006	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	92	110929	50.0	49.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	71	181120	50.0	50.2	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	445521	50.0	54.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	80	184340	50.0	50.4	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	99	166146	50.0	49.4	
12 Chloromethane	50	1.754	1.754	0.000	100	147560	50.0	50.9	
13 Vinyl chloride	62	1.888	1.888	0.000	99	154423	50.0	49.5	
14 Butadiene	39	1.930	1.930	0.000	90	146675	50.0	50.1	
15 Bromomethane	94	2.228	2.228	0.000	90	89628	50.0	53.2	
16 Chloroethane	64	2.368	2.368	0.000	99	111283	50.0	52.2	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	96	250823	50.0	50.6	
18 Trichlorofluoromethane	101	2.660	2.660	0.000	73	206141	50.0	52.1	
20 Ethyl ether	59	3.049	3.049	0.000	90	136903	50.0	48.8	
21 Acrolein	56	3.220	3.220	0.000	97	43327	150.0	141.7	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	118856	50.0	48.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.390	3.390	0.000	95	126375	50.0	49.0	
24 Acetone	43	3.421	3.421	0.000	98	76252	100.0	88.7	
25 Iodomethane	142	3.536	3.536	0.000	98	159542	50.0	48.6	
26 Carbon disulfide	76	3.627	3.627	0.000	100	294989	50.0	46.6	
29 3-Chloro-1-propene	76	3.919	3.919	0.000	61	66228	50.0	48.1	
30 Methyl acetate	43	3.926	3.926	0.000	96	497011	250.0	246.7	
31 Methylene Chloride	84	4.132	4.132	0.000	93	163213	50.0	48.0	
32 2-Methyl-2-propanol	59	4.370	4.370	0.000	93	91997	500.0	507.7	
33 Acrylonitrile	53	4.503	4.503	0.000	98	501701	500.0	494.0	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	96	139824	50.0	49.6	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	97	394698	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	4.990	4.990	0.000	93	186977	50.0	48.9	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	251887	50.0	49.9	
38 Vinyl acetate	43	5.240	5.240	0.000	98	186047	50.0	45.6	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	85	151575	50.0	49.4	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	60	108037	100.0	92.1	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	61	122189	50.0	47.8	
48 Chlorobromomethane	128	6.231	6.231	0.000	96	58005	50.0	47.1	
49 Tetrahydrofuran	42	6.249	6.249	0.000	87	70787	100.0	89.6	
50 Chloroform	83	6.371	6.371	0.000	94	250393	50.0	49.9	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	182973	50.0	49.4	
52 Cyclohexane	56	6.620	6.620	0.000	93	237539	50.0	50.0	
53 Carbon tetrachloride	117	6.718	6.718	0.000	95	126096	50.0	48.2	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	95	202951	50.0	50.9	
55 Isobutyl alcohol	41	6.900	6.900	0.000	88	81470	1250.0	1159.5	
56 Benzene	78	6.943	6.943	0.000	97	574901	50.0	50.8	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	99	225116	50.0	49.4	
59 n-Heptane	43	7.308	7.308	0.000	88	154761	50.0	50.3	
61 Trichloroethene	130	7.679	7.679	0.000	92	113666	50.0	48.2	
63 Methylcyclohexane	83	7.922	7.922	0.000	92	240977	50.0	50.3	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	87	126414	50.0	46.8	
65 1,4-Dioxane	88	8.032	8.032	0.000	44	26388	1000.0	988.7	M
67 Dibromomethane	93	8.038	8.038	0.000	94	77394	50.0	47.1	
68 Dichlorobromomethane	83	8.227	8.227	0.000	98	144075	50.0	46.7	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	92	149301	50.0	44.1	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	96	208546	100.0	97.1	
73 Toluene	91	9.011	9.011	0.000	98	565645	50.0	52.5	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	95	124444	50.0	45.5	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	135064	50.0	46.5	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	108552	50.0	48.7	
77 Tetrachloroethene	164	9.522	9.522	0.000	93	93269	50.0	50.7	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	91	206060	50.0	50.0	
79 2-Hexanone	43	9.656	9.656	0.000	95	135329	100.0	96.0	
81 Chlorodibromomethane	129	9.826	9.826	0.000	91	73014	50.0	48.0	
82 Ethylene Dibromide	107	9.942	9.942	0.000	97	92363	50.0	46.8	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	87	177755	50.0	51.5	
84 Chlorobenzene	112	10.429	10.429	0.000	91	339330	50.0	51.2	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	164547	50.0	51.5	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	85	89710	50.0	49.4	
87 Ethylbenzene	106	10.526	10.526	0.000	99	191951	50.0	51.4	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	235109	50.0	50.7	
89 o-Xylene	106	11.043	11.043	0.000	98	234926	50.0	50.6	
90 Styrene	104	11.061	11.061	0.000	94	374525	50.0	52.6	
91 Bromoform	173	11.244	11.244	0.000	92	37102	50.0	45.7	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	94	179913	50.0	50.9	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	599038	50.0	54.0	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	95	147479	50.0	49.5	
95 Bromobenzene	156	11.725	11.725	0.000	96	136094	50.0	49.5	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	77	41001	50.0	47.0	
98 1,2,3-Trichloropropane	110	11.767	11.767	0.000	87	50085	50.0	47.9	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	161671	50.0	51.1	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	133354	50.0	50.7	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	137766	50.0	49.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	95	541915	50.0	52.6	
103 4-Chlorotoluene	126	12.041	12.041	0.000	98	141377	50.0	50.9	
104 tert-Butylbenzene	119	12.321	12.321	0.000	91	415895	50.0	51.1	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	554224	50.0	52.7	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	144215	50.0	48.4	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	643438	50.0	53.0	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	267626	50.0	49.8	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	539941	50.0	53.0	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	88	275229	50.0	50.1	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	143623	50.0	48.4	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	169006	50.0	51.0	
116 n-Butylbenzene	91	13.112	13.112	0.000	99	533401	50.0	52.4	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	91	269873	50.0	49.8	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.921	-0.006	68	22010	50.0	44.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	98	751227	150.0	159.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	99	530353	100.0	101.9	
122 1,2,4-Trichlorobenzene	180	14.736	14.736	0.000	92	208112	50.0	49.5	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	95	83692	50.0	50.6	
124 Naphthalene	128	15.004	15.004	0.000	99	425036	50.0	50.1	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	91	189066	50.0	48.1	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	121646	50.0	46.1	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	92	120523	50.0	48.1	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 131 Xylenes, Total	106				0		100.0	101.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	89.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 2.00	Units: uL	
voaWket1Reste_00001	Amount Added: 2.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 2.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 2.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 2.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 6.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D

Injection Date: 31-Jul-2015 14:24:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: ICIS VSTD10

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

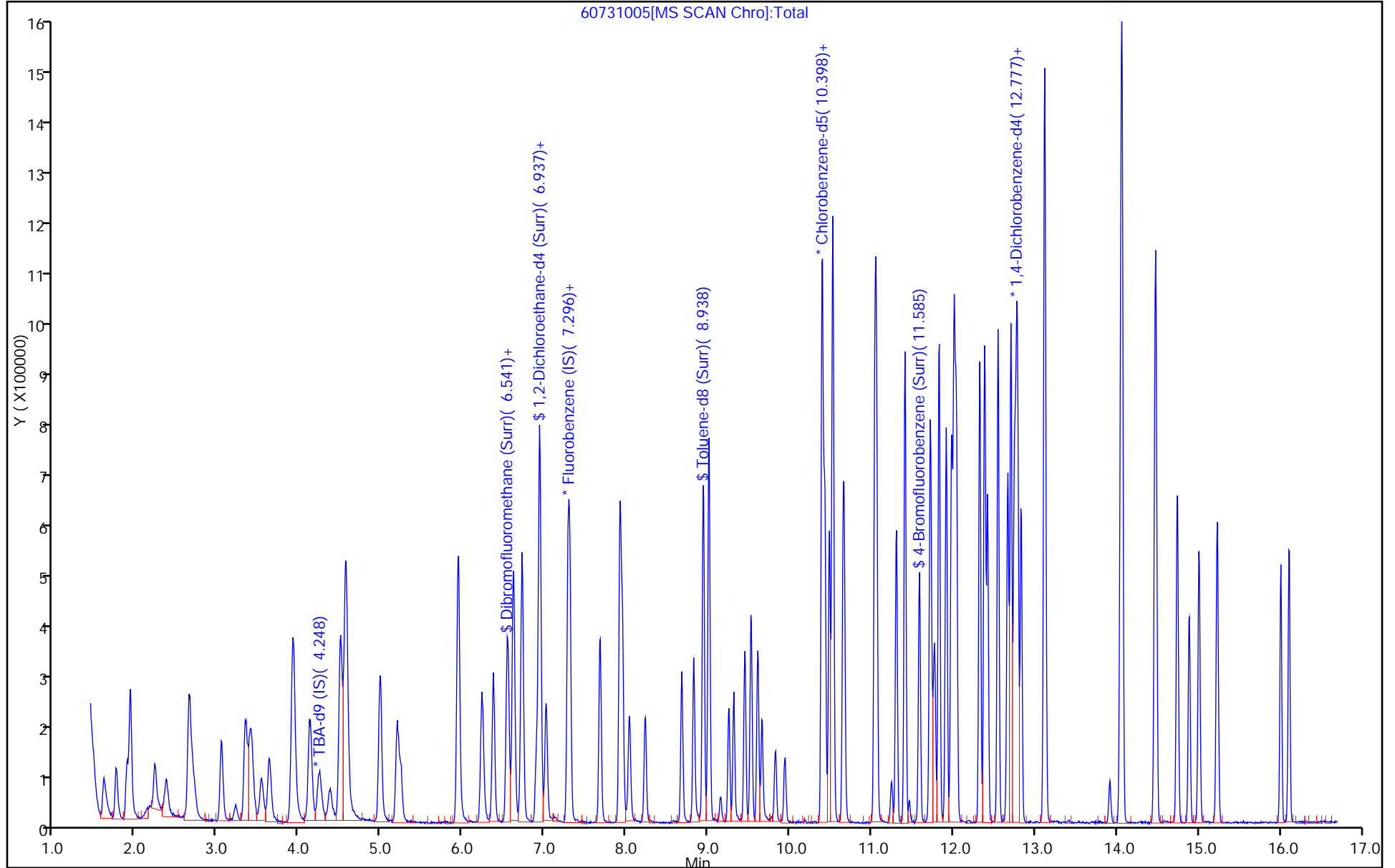
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



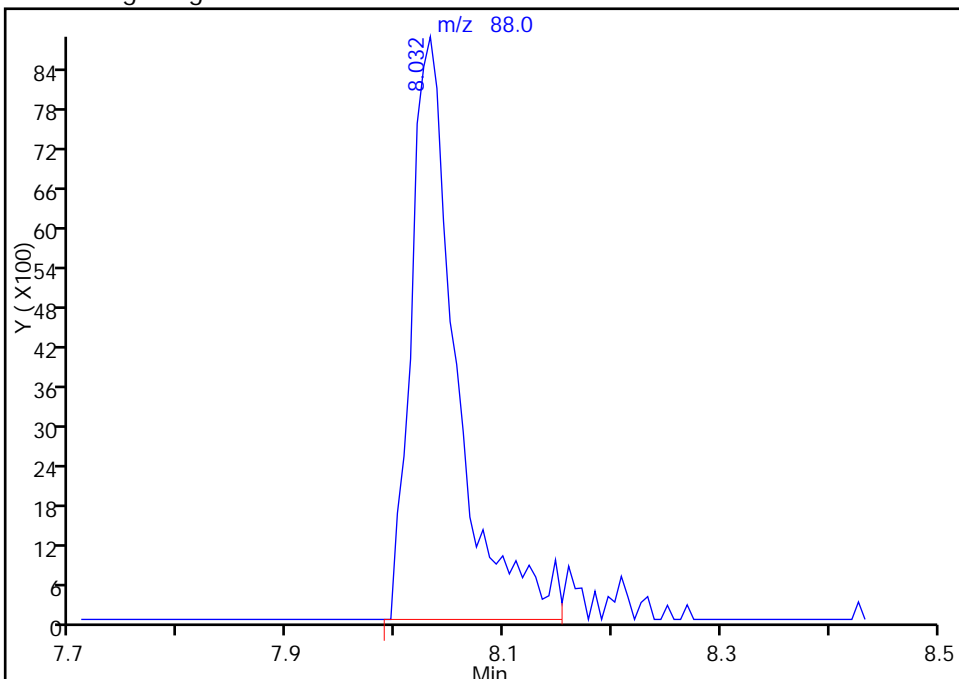
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731005.D  
Injection Date: 31-Jul-2015 14:24:30 Instrument ID: CHHP6  
Lims ID: ICIS VSTD10  
Client ID:  
Operator ID: 001562 ALS Bottle#: 5 Worklist Smp#: 5  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

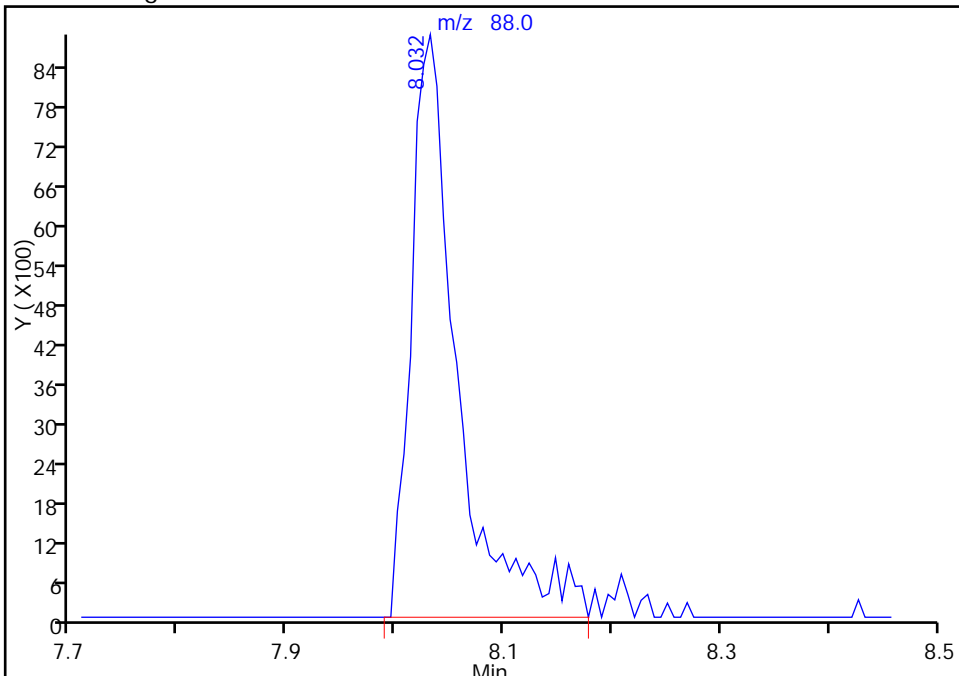
RT: 8.03  
Area: 25747  
Amount: 938.6160  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 26388  
Amount: 988.6792  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:47:28  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731006.D  
 Lims ID: IC VSTD15  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 31-Jul-2015 14:49:30 ALS Bottle#: 6 Worklist Smp#: 6  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD15  
 Misc. Info.: 180-0007999-006  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:42 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:29:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.247	4.247	0.000	90	170149	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	471581	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	104570	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	95	167231	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	163209	75.0	75.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	71	260570	75.0	74.4	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	643420	75.0	78.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	281797	75.0	77.0	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	98	255750	75.0	78.3	
12 Chloromethane	50	1.759	1.759	0.000	99	208858	75.0	74.2	
13 Vinyl chloride	62	1.893	1.893	0.000	84	233901	75.0	77.2	
14 Butadiene	39	1.930	1.930	0.000	90	214248	75.0	75.4	
15 Bromomethane	94	2.228	2.228	0.000	89	123705	75.0	75.6	
16 Chloroethane	64	2.374	2.374	0.000	99	159781	75.0	77.2	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	99	372545	75.0	77.4	
18 Trichlorofluoromethane	101	2.678	2.678	0.000	84	296881	75.0	77.3	
20 Ethyl ether	59	3.043	3.043	0.000	89	202583	75.0	74.4	
21 Acrolein	56	3.213	3.213	0.000	99	52894	175.0	178.1	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	96	180424	75.0	76.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.402	3.402	0.000	96	188852	75.0	75.4	
24 Acetone	43	3.432	3.432	0.000	99	117975	150.0	141.4	
25 Iodomethane	142	3.530	3.530	0.000	99	243211	75.0	76.3	
26 Carbon disulfide	76	3.633	3.633	0.000	100	461167	75.0	75.0	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	98190	75.0	73.4	
30 Methyl acetate	43	3.925	3.925	0.000	97	732698	375.0	374.5	
31 Methylene Chloride	84	4.132	4.132	0.000	93	238130	75.0	74.9	
32 2-Methyl-2-propanol	59	4.369	4.369	0.000	92	141735	750.0	740.2	
33 Acrylonitrile	53	4.497	4.497	0.000	99	737397	750.0	747.7	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	71	208665	75.0	76.2	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	97	621185	75.0	75.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	278592	75.0	75.0	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	97	371113	75.0	75.7	
38 Vinyl acetate	43	5.239	5.239	0.000	98	295714	75.0	74.7	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	85	223081	75.0	74.9	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	61	180292	150.0	158.3	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	61	186450	75.0	75.2	
48 Chlorobromomethane	128	6.225	6.225	0.000	97	88252	75.0	73.7	
49 Tetrahydrofuran	42	6.237	6.237	0.000	85	117489	150.0	153.2	
50 Chloroform	83	6.371	6.371	0.000	96	370042	75.0	76.0	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	97	278390	75.0	77.4	
52 Cyclohexane	56	6.620	6.620	0.000	91	359010	75.0	77.9	
53 Carbon tetrachloride	117	6.717	6.717	0.000	97	195436	75.0	76.9	
54 1,1-Dichloropropene	75	6.730	6.730	0.000	95	301319	75.0	77.9	
55 Isobutyl alcohol	41	6.900	6.900	0.000	90	122452	1875.0	1794.8	
56 Benzene	78	6.942	6.942	0.000	97	839117	75.0	76.3	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	99	335915	75.0	75.9	
59 n-Heptane	43	7.307	7.307	0.000	88	231524	75.0	77.5	
61 Trichloroethene	130	7.679	7.679	0.000	92	177868	75.0	77.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	355558	75.0	76.4	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	94	199527	75.0	76.0	
65 1,4-Dioxane	88	8.031	8.031	0.000	40	36545	1500.0	1410.1	
67 Dibromomethane	93	8.037	8.037	0.000	90	121844	75.0	76.4	
68 Dichlorobromomethane	83	8.226	8.226	0.000	98	230314	75.0	76.9	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	254907	75.0	77.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	94	330779	150.0	153.9	
73 Toluene	91	9.011	9.011	0.000	98	847209	75.0	78.5	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	97	221914	75.0	81.0	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	231048	75.0	79.4	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	172158	75.0	77.1	
77 Tetrachloroethene	164	9.528	9.528	0.000	94	142949	75.0	77.7	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	320167	75.0	77.7	
79 2-Hexanone	43	9.656	9.656	0.000	96	219895	150.0	155.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	89	123420	75.0	81.0	
82 Ethylene Dibromide	107	9.936	9.936	0.000	97	153351	75.0	77.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	262608	75.0	76.0	
84 Chlorobenzene	112	10.428	10.428	0.000	91	513514	75.0	77.4	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	245021	75.0	76.5	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	87	138964	75.0	76.5	
87 Ethylbenzene	106	10.526	10.526	0.000	99	288675	75.0	77.2	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	99	360561	75.0	77.7	
89 o-Xylene	106	11.037	11.037	0.000	98	364838	75.0	78.5	
90 Styrene	104	11.061	11.061	0.000	94	568513	75.0	79.7	
91 Bromoform	173	11.243	11.243	0.000	93	60348	75.0	74.2	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	96	274773	75.0	77.7	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	897341	75.0	80.7	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	227964	75.0	76.4	
95 Bromobenzene	156	11.724	11.724	0.000	97	203181	75.0	75.6	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	68	61474	75.0	72.1	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	75371	75.0	73.7	
99 N-Propylbenzene	120	11.827	11.827	0.000	99	238465	75.0	77.0	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	197431	75.0	76.8	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	203636	75.0	75.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	92	796704	75.0	79.1	
103 4-Chlorotoluene	126	12.034	12.034	0.000	99	208897	75.0	76.9	
104 tert-Butylbenzene	119	12.320	12.320	0.000	91	633351	75.0	79.6	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	99	824147	75.0	80.1	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	221955	75.0	76.1	
108 sec-Butylbenzene	105	12.545	12.545	0.000	96	958306	75.0	80.7	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	397446	75.0	75.7	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	96	804039	75.0	80.7	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	92	407678	75.0	75.9	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	211084	75.0	72.8	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	99	249633	75.0	77.0	
116 n-Butylbenzene	91	13.111	13.111	0.000	98	791496	75.0	79.6	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	90	400593	75.0	75.6	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	70	36339	75.0	74.7	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	98	1076776	225.0	233.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	792789	150.0	155.7	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	309817	75.0	75.4	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	96	122376	75.0	75.6	
124 Naphthalene	128	15.003	15.003	0.000	99	654694	75.0	78.9	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	93	286920	75.0	74.6	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	198517	75.0	76.9	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	186087	75.0	76.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		150.0	151.1	
S 131 Xylenes, Total	106				0		150.0	156.2	
S 132 1,3-Dichloropropene, Total	1				0		150.0	158.5	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260SURR_00039	Amount Added: 3.00	Units: uL	
voaWket1Reste_00001	Amount Added: 3.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 3.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 3.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 3.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 7.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731006.D

Injection Date: 31-Jul-2015 14:49:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD15

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

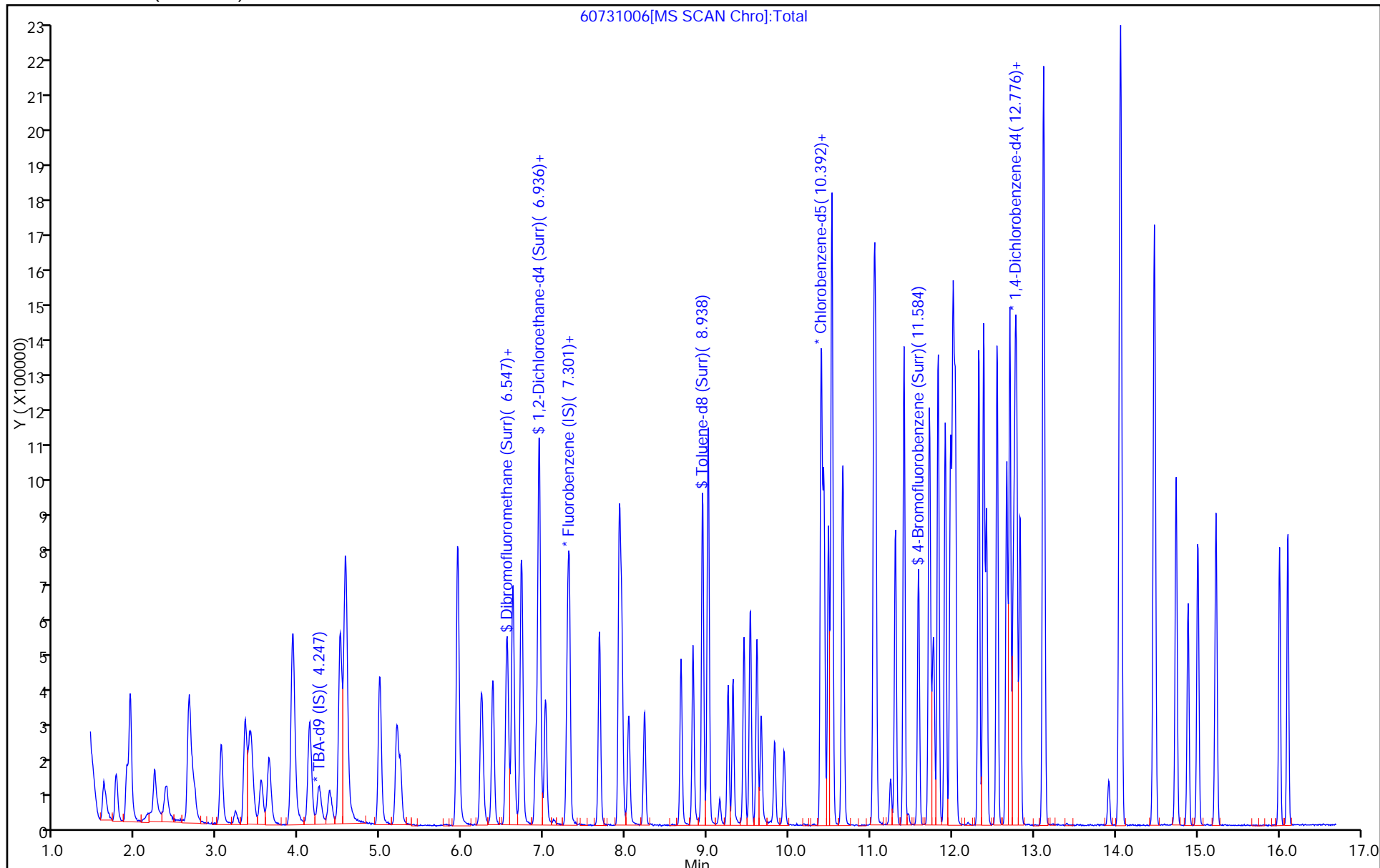
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D  
 Lims ID: IC VSTD20  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 31-Jul-2015 15:13:30 ALS Bottle#: 7 Worklist Smp#: 7  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD20  
 Misc. Info.: 180-0007999-007  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:51 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:27:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.247	-0.006	92	168874	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.289	-0.006	98	482403	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	110045	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	94	171338	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	93	221245	100.0	99.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	70	353626	100.0	98.6	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	95	864751	100.0	99.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	81	371000	100.0	96.3	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	100	316945	100.0	94.9	
12 Chloromethane	50	1.759	1.759	0.000	99	278884	100.0	96.9	
13 Vinyl chloride	62	1.887	1.893	-0.006	99	292173	100.0	94.2	
14 Butadiene	39	1.930	1.930	0.000	90	274693	100.0	94.5	
15 Bromomethane	94	2.234	2.228	0.006	91	158589	100.0	94.7	
16 Chloroethane	64	2.368	2.374	-0.006	99	198857	100.0	93.9	
17 Dichlorofluoromethane	67	2.647	2.654	-0.007	98	463283	100.0	94.0	
18 Trichlorofluoromethane	101	2.672	2.678	-0.006	99	367084	100.0	93.4	
20 Ethyl ether	59	3.043	3.043	0.000	90	269465	100.0	96.8	
21 Acrolein	56	3.219	3.213	0.006	98	54177	200.0	178.4	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	96	234083	100.0	96.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.402	-0.006	96	241359	100.0	94.2	
24 Acetone	43	3.426	3.432	-0.006	99	166807	200.0	195.5	
25 Iodomethane	142	3.536	3.530	0.006	98	318736	100.0	97.8	
26 Carbon disulfide	76	3.633	3.633	0.000	100	618168	100.0	98.2	
29 3-Chloro-1-propene	76	3.907	3.913	-0.006	88	135273	100.0	98.8	
30 Methyl acetate	43	3.925	3.925	0.000	97	982363	500.0	490.9	
31 Methylene Chloride	84	4.132	4.132	0.000	92	313904	100.0	98.1	
32 2-Methyl-2-propanol	59	4.369	4.369	0.000	92	198055	1000.0	1042.2	
33 Acrylonitrile	53	4.503	4.497	0.006	99	994141	1000.0	985.4	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	97	267617	100.0	95.5	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	97	825760	100.0	98.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.983	4.990	-0.007	93	352983	100.0	93.0	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	97	490563	100.0	97.8	
38 Vinyl acetate	43	5.239	5.239	0.000	97	412541	100.0	101.9	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	85	295290	100.0	96.9	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	60	231667	200.0	198.9	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	62	250901	100.0	98.9	
48 Chlorobromomethane	128	6.231	6.225	0.006	97	118290	100.0	96.6	
49 Tetrahydrofuran	42	6.249	6.237	0.012	85	154776	200.0	197.3	
50 Chloroform	83	6.370	6.371	-0.001	96	484585	100.0	97.3	
51 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	98	366376	100.0	99.6	
52 Cyclohexane	56	6.614	6.620	-0.006	92	445084	100.0	94.4	
53 Carbon tetrachloride	117	6.717	6.717	0.000	98	252588	100.0	97.2	
54 1,1-Dichloropropene	75	6.729	6.730	-0.001	94	392146	100.0	99.1	
55 Isobutyl alcohol	41	6.900	6.900	0.000	92	178080	2500.0	2551.6	
56 Benzene	78	6.942	6.942	0.000	98	1096030	100.0	97.5	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	99	440984	100.0	97.4	
59 n-Heptane	43	7.307	7.307	0.000	85	290327	100.0	95.0	
61 Trichloroethene	130	7.678	7.679	-0.001	93	230554	100.0	98.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	455180	100.0	95.7	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	94	267345	100.0	99.5	
65 1,4-Dioxane	88	8.031	8.031	0.000	41	54577	2000.0	2058.6	M
67 Dibromomethane	93	8.037	8.037	0.000	92	163719	100.0	100.4	
68 Dichlorobromomethane	83	8.232	8.226	0.006	99	311750	100.0	101.7	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	358605	100.0	106.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	95	452681	200.0	200.1	
73 Toluene	91	9.011	9.011	0.000	98	1104648	100.0	97.3	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	97	303226	100.0	105.2	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	326852	100.0	106.8	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	224945	100.0	95.8	
77 Tetrachloroethene	164	9.528	9.528	0.000	94	183568	100.0	94.8	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	425660	100.0	98.1	
79 2-Hexanone	43	9.656	9.656	0.000	95	302805	200.0	203.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	90	163175	100.0	101.8	
82 Ethylene Dibromide	107	9.941	9.936	0.005	96	211303	100.0	101.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	340769	100.0	93.7	
84 Chlorobenzene	112	10.428	10.428	0.000	91	676590	100.0	96.9	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	315960	100.0	93.8	
86 1,1,1,2-Tetrachloroethane	131	10.525	10.520	0.005	88	192497	100.0	100.6	
87 Ethylbenzene	106	10.525	10.526	-0.001	99	383099	100.0	97.3	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	100	480587	100.0	98.4	
89 o-Xylene	106	11.036	11.037	-0.001	98	484093	100.0	99.0	
90 Styrene	104	11.061	11.061	0.000	94	752806	100.0	100.3	
91 Bromoform	173	11.243	11.243	0.000	93	85498	100.0	99.9	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	93	350232	100.0	94.1	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	1146617	100.0	98.0	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.712	0.006	96	304710	100.0	97.0	
95 Bromobenzene	156	11.724	11.724	0.000	97	276525	100.0	100.4	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	80	87362	100.0	100.0	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	102213	100.0	97.6	
99 N-Propylbenzene	120	11.827	11.827	0.000	98	317924	100.0	100.2	
100 2-Chlorotoluene	126	11.913	11.913	-0.001	93	265955	100.0	101.0	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	97	282386	100.0	102.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	1031152	100.0	100.0	
103 4-Chlorotoluene	126	12.034	12.034	0.000	100	278435	100.0	100.1	
104 tert-Butylbenzene	119	12.326	12.320	0.006	91	820194	100.0	100.6	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	99	1075766	100.0	102.0	
107 1,2-dichloro-4-(trifluorom	214	12.417	12.418	-0.001	95	280215	100.0	93.8	
108 sec-Butylbenzene	105	12.545	12.545	0.000	97	1226548	100.0	100.8	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	93	528372	100.0	98.2	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	95	1043904	100.0	102.3	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	90	543357	100.0	98.8	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	97	297534	100.0	100.1	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	98	301973	100.0	91.0	
116 n-Butylbenzene	91	13.111	13.111	0.000	97	1018212	100.0	99.9	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	92	525918	100.0	96.8	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	68	49062	100.0	98.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	98	1401616	300.0	296.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	1039069	200.0	199.2	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	415442	100.0	98.7	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	97	161228	100.0	97.2	
124 Naphthalene	128	15.003	15.003	0.000	99	876449	100.0	103.2	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	92	385220	100.0	97.8	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	266093	100.0	100.6	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	248497	100.0	99.0	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	192.4	
S 131 Xylenes, Total	106				0		200.0	197.4	
S 132 1,3-Dichloropropene, Total	1				0		200.0	211.7	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 4.00	Units: uL	
voaWket1Reste_00001	Amount Added: 4.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 4.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 4.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 4.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 8.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D

Injection Date: 31-Jul-2015 15:13:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD20

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

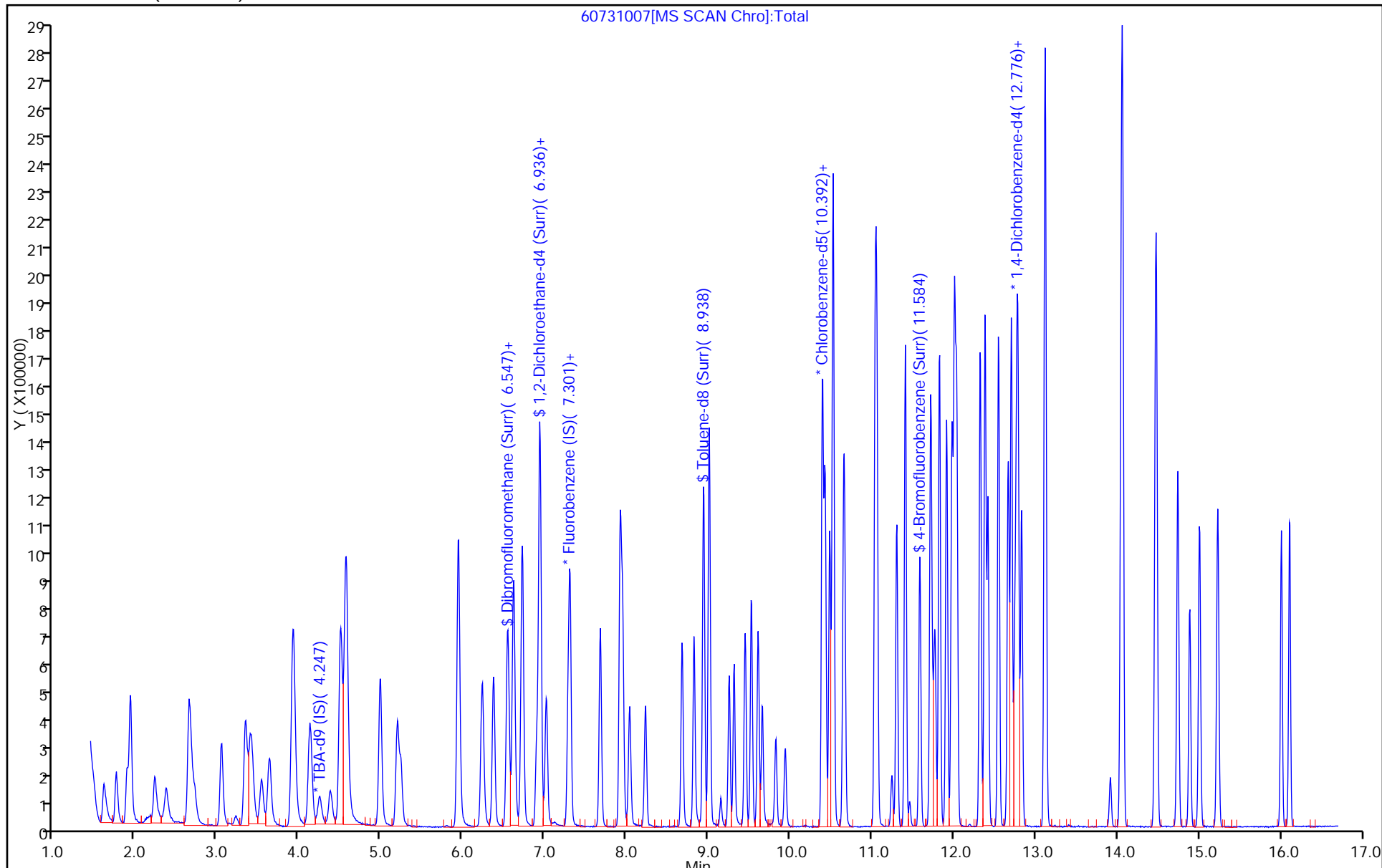
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





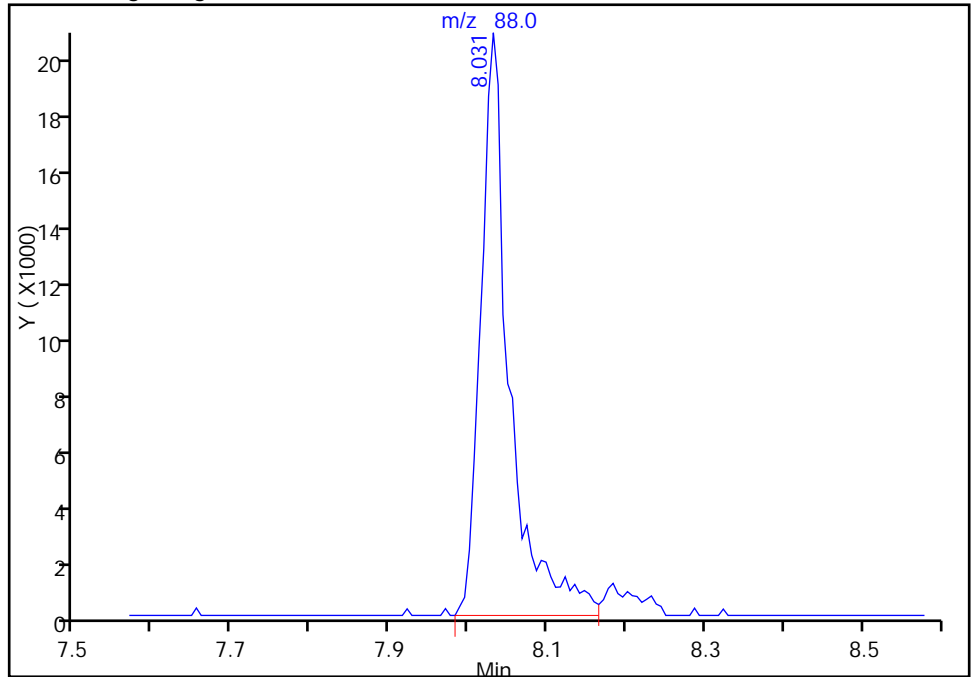
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731007.D  
Injection Date: 31-Jul-2015 15:13:30 Instrument ID: CHHP6  
Lims ID: IC VSTD20  
Client ID:  
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

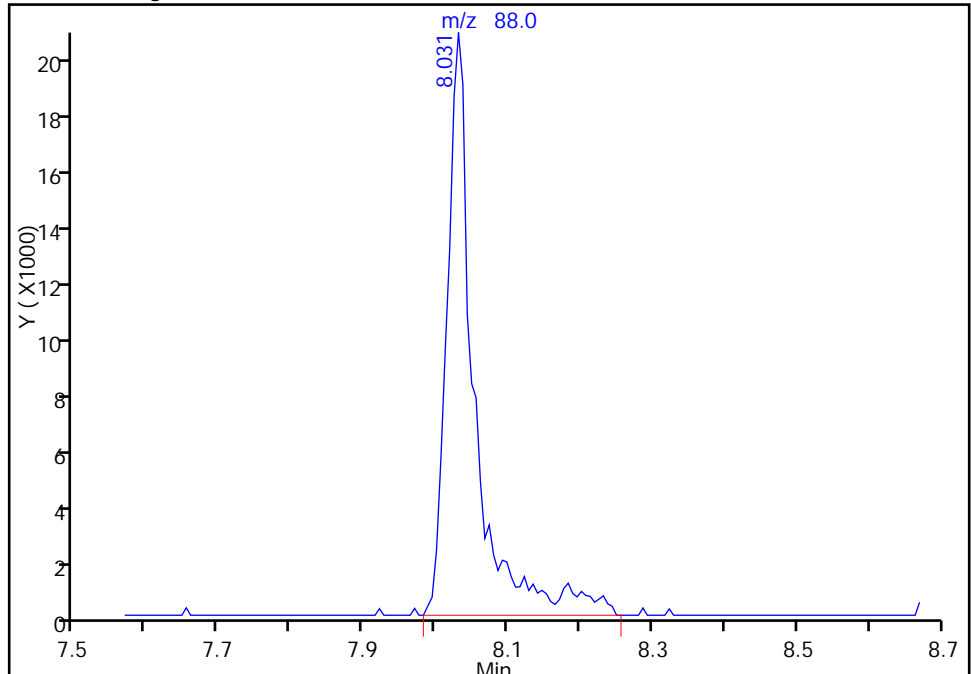
RT: 8.03  
Area: 51451  
Amount: 1915.4354  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 54577  
Amount: 2058.6297  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:27:52  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D  
 Lims ID: IC VSTD35  
 Client ID:  
 Sample Type: IC Calib Level: 6  
 Inject. Date: 31-Jul-2015 15:37:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD35  
 Misc. Info.: 180-0007999-008  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:16:01 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 31-Jul-2015 16:23:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.247	0.007	92	191694	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.289	-0.006	98	474812	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	108350	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	96	164628	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	378487	175.0	173.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.930	0.001	71	595019	175.0	168.6	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	1415164	175.0	165.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	645419	175.0	170.1	
11 Dichlorodifluoromethane	85	1.601	1.607	-0.006	99	575043	175.0	174.9	
12 Chloromethane	50	1.754	1.759	-0.005	99	470953	175.0	166.2	
13 Vinyl chloride	62	1.887	1.893	-0.006	99	517410	175.0	169.5	
14 Butadiene	39	1.924	1.930	-0.006	90	483297	175.0	168.9	
15 Bromomethane	94	2.222	2.228	-0.006	90	248522	175.0	150.8	
16 Chloroethane	64	2.356	2.374	-0.018	99	359701	175.0	172.7	
17 Dichlorofluoromethane	67	2.642	2.654	-0.012	97	819476	175.0	169.0	
18 Trichlorofluoromethane	101	2.654	2.678	-0.024	76	664854	175.0	171.9	
20 Ethyl ether	59	3.043	3.043	0.000	89	458021	175.0	167.1	
21 Acrolein	56	3.220	3.213	0.007	99	68050	225.0	227.6	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	96	411177	175.0	172.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.390	3.402	-0.012	95	446711	175.0	177.0	
24 Acetone	43	3.426	3.432	-0.006	100	284563	350.0	338.8	
25 Iodomethane	142	3.536	3.530	0.006	99	566533	175.0	176.6	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	1151644	175.0	185.9	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	89	257112	175.0	190.8	
30 Methyl acetate	43	3.925	3.925	0.000	96	1680300	875.0	853.1	
31 Methylene Chloride	84	4.132	4.132	0.000	91	527474	175.0	171.5	
32 2-Methyl-2-propanol	59	4.382	4.369	0.013	93	354063	1750.0	1641.3	
33 Acrylonitrile	53	4.503	4.497	0.006	98	1745686	1750.0	1758.1	
34 trans-1,2-Dichloroethene	96	4.558	4.564	-0.006	98	479327	175.0	173.8	
35 Methyl tert-butyl ether	73	4.570	4.576	-0.006	97	1455878	175.0	176.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	92	669795	175.0	179.2	
37 1,1-Dichloroethane	63	5.191	5.196	-0.005	97	861981	175.0	174.6	
38 Vinyl acetate	43	5.239	5.239	0.000	97	744628	175.0	186.8	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	87	520777	175.0	173.6	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	87	412307	350.0	359.6	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	79	484574	175.0	194.1	
48 Chlorobromomethane	128	6.231	6.225	0.006	97	209995	175.0	174.3	
49 Tetrahydrofuran	42	6.249	6.237	0.012	86	277489	350.0	359.4	
50 Chloroform	83	6.371	6.371	0.000	94	847765	175.0	173.0	
51 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	97	659562	175.0	182.1	
52 Cyclohexane	56	6.614	6.620	-0.006	92	834057	175.0	179.7	
53 Carbon tetrachloride	117	6.718	6.717	0.001	97	479558	175.0	187.5	
54 1,1-Dichloropropene	75	6.724	6.730	-0.006	95	675711	175.0	173.5	
55 Isobutyl alcohol	41	6.900	6.900	0.000	89	326401	4375.0	4751.5	
56 Benzene	78	6.943	6.942	0.001	98	1836424	175.0	166.0	
57 1,2-Dichloroethane	62	7.016	7.015	0.001	98	746328	175.0	167.4	
59 n-Heptane	43	7.308	7.307	0.001	86	526126	175.0	174.9	
61 Trichloroethene	130	7.679	7.679	0.000	93	405251	175.0	175.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	834543	175.0	178.2	
64 1,2-Dichloropropane	63	7.953	7.952	0.001	86	455391	175.0	172.3	
65 1,4-Dioxane	88	8.032	8.031	0.001	47	98136	3500.0	3760.8	M
67 Dibromomethane	93	8.038	8.037	0.001	92	283101	175.0	176.4	
68 Dichlorobromomethane	83	8.226	8.226	0.000	98	551929	175.0	183.0	
71 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	93	650196	175.0	196.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	93	808342	350.0	362.9	
73 Toluene	91	9.011	9.011	0.000	98	1802740	175.0	161.2	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	565592	175.0	199.3	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	580427	175.0	192.5	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	391776	175.0	169.4	
77 Tetrachloroethene	164	9.528	9.528	0.000	95	319955	175.0	167.8	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	93	717566	175.0	168.0	
79 2-Hexanone	43	9.656	9.656	0.000	94	534519	350.0	365.4	
81 Chlorodibromomethane	129	9.820	9.826	-0.006	90	301710	175.0	191.2	
82 Ethylene Dibromide	107	9.936	9.936	0.000	97	363449	175.0	177.6	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	600793	175.0	167.8	
84 Chlorobenzene	112	10.429	10.428	0.001	89	1142353	175.0	166.2	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	570403	175.0	171.9	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	89	349368	175.0	185.5	
87 Ethylbenzene	106	10.526	10.526	0.000	98	663577	175.0	171.2	
88 m-Xylene & p-Xylene	106	10.660	10.659	0.001	99	823294	175.0	171.1	
89 o-Xylene	106	11.037	11.037	0.000	96	833629	175.0	173.2	
90 Styrene	104	11.061	11.061	0.000	92	1289309	175.0	174.4	
91 Bromoform	173	11.244	11.243	0.001	93	160966	175.0	191.1	
92 2-Chlorobenzotrifluoride	180	11.305	11.304	0.001	94	628216	175.0	171.3	
93 Isopropylbenzene	105	11.408	11.408	0.000	99	1921153	175.0	166.8	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	532593	175.0	172.2	
95 Bromobenzene	156	11.724	11.724	0.000	98	459843	175.0	173.7	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.748	0.001	80	160304	175.0	191.0	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	84	178317	175.0	177.2	
99 N-Propylbenzene	120	11.828	11.827	0.001	98	554932	175.0	182.1	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	446590	175.0	176.5	
101 3-Chlorotoluene	126	11.980	11.980	0.000	96	485130	175.0	182.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	1730016	175.0	174.6	
103 4-Chlorotoluene	126	12.041	12.034	0.007	100	464650	175.0	173.8	
104 tert-Butylbenzene	119	12.327	12.320	0.007	90	1405341	175.0	179.5	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	1786151	175.0	176.3	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	95	509173	175.0	177.4	
108 sec-Butylbenzene	105	12.546	12.545	0.001	97	2038837	175.0	174.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	886632	175.0	171.5	
110 4-Isopropyltoluene	119	12.704	12.703	0.001	94	1736569	175.0	177.1	
111 1,4-Dichlorobenzene	146	12.771	12.770	0.001	92	902441	175.0	170.8	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	94	534909	175.0	187.3	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.831	0.001	96	537191	175.0	168.4	
116 n-Butylbenzene	91	13.111	13.111	0.000	97	1734264	175.0	177.1	
117 1,2-Dichlorobenzene	146	13.124	13.123	0.001	89	899668	175.0	172.4	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	71	96376	175.0	201.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	95	2390336	525.0	526.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	97	1797097	350.0	358.5	
122 1,2,4-Trichlorobenzene	180	14.742	14.741	0.001	92	726756	175.0	179.7	
123 Hexachlorobutadiene	225	14.888	14.887	0.001	97	290426	175.0	182.3	
124 Naphthalene	128	15.003	15.003	0.000	99	1550041	175.0	189.9	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	93	673533	175.0	178.0	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	490754	175.0	193.1	
127 2,3,6-Trichlorotoluene	159	16.111	16.110	0.000	94	460224	175.0	190.9	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		350.0	347.4	
S 131 Xylenes, Total	106				0		350.0	344.3	
S 132 1,3-Dichloropropene, Total	1				0		350.0	395.5	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR_00039	Amount Added: 7.00	Units: uL	
voaWket1Reste_00001	Amount Added: 7.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 7.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 7.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 7.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 9.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D

Injection Date: 31-Jul-2015 15:37:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD35

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

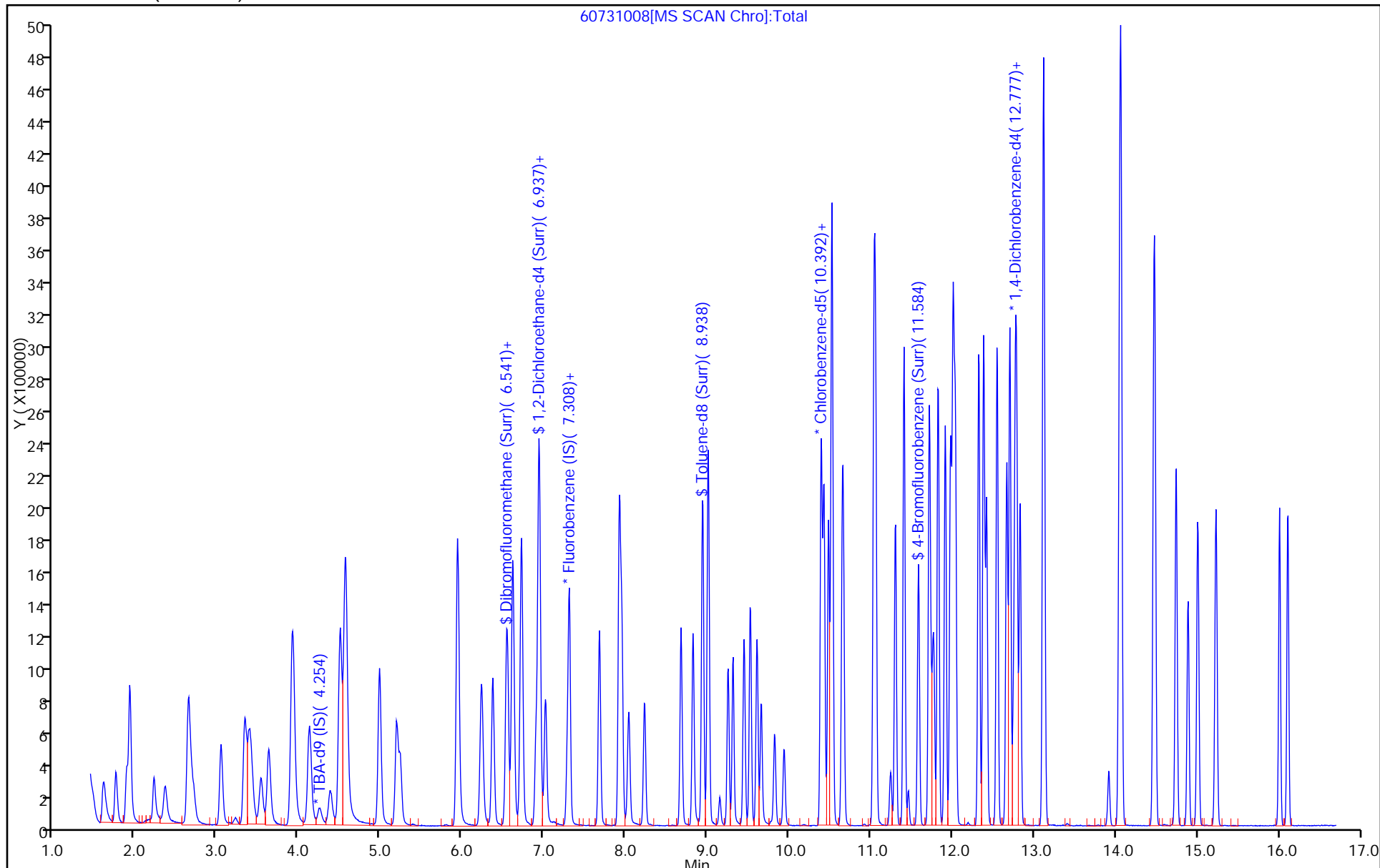
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



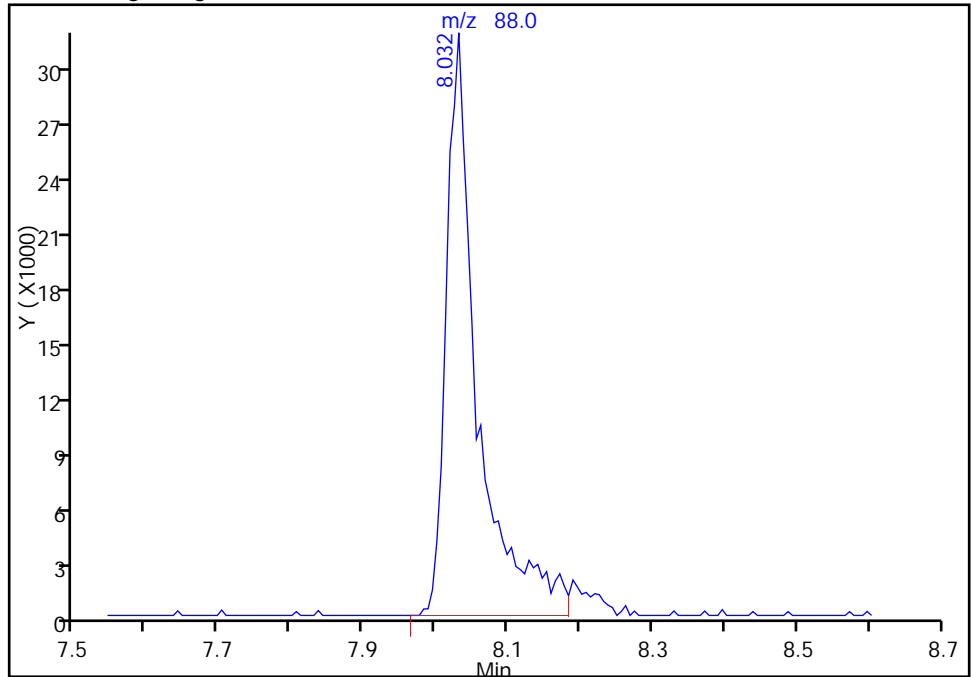
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731008.D  
Injection Date: 31-Jul-2015 15:37:30 Instrument ID: CHHP6  
Lims ID: IC VSTD35  
Client ID:  
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 8  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

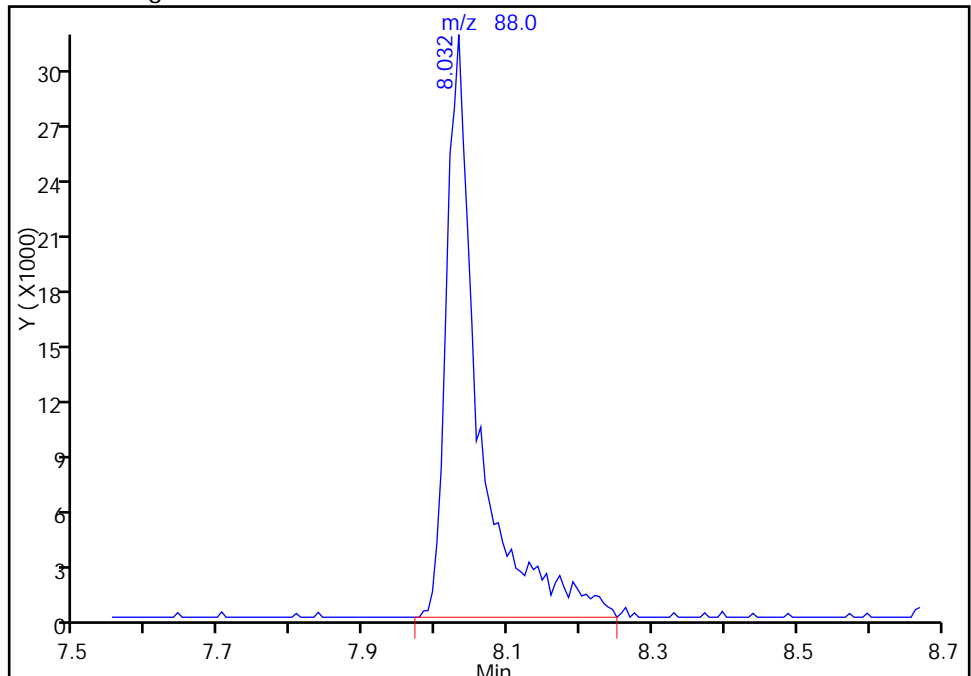
RT: 8.03  
Area: 94184  
Amount: 3581.4908  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 98136  
Amount: 3760.8433  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:13:21  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D  
 Lims ID: IC VSTD40  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 31-Jul-2015 16:01:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD40  
 Misc. Info.: 180-0007999-009  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:16:10 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:06:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.253	4.247	0.006	92	190170	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	446456	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	89	103508	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	95	159598	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	428779	200.0	208.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	72	668015	200.0	201.4	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	1563368	200.0	191.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	81	722308	200.0	199.3	
11 Dichlorodifluoromethane	85	1.613	1.607	0.006	99	636192	200.0	205.8	
12 Chloromethane	50	1.759	1.759	0.000	99	522516	200.0	196.1	
13 Vinyl chloride	62	1.893	1.893	0.000	98	585198	200.0	203.9	
14 Butadiene	39	1.935	1.930	0.005	92	538199	200.0	200.0	
15 Bromomethane	94	2.233	2.228	0.005	91	263364	200.0	170.0	
16 Chloroethane	64	2.373	2.374	-0.001	99	402907	200.0	205.7	
17 Dichlorofluoromethane	67	2.647	2.654	-0.007	98	899692	200.0	197.3	
18 Trichlorofluoromethane	101	2.672	2.678	-0.006	99	726249	200.0	199.7	
20 Ethyl ether	59	3.049	3.043	0.006	89	523507	200.0	203.1	
21 Acrolein	56	3.225	3.213	0.012	96	76429	250.0	271.9	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	99	476887	200.0	212.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.395	3.402	-0.007	95	481169	200.0	202.8	
24 Acetone	43	3.432	3.432	0.000	100	317270	400.0	401.7	
25 Iodomethane	142	3.529	3.530	-0.001	99	655616	200.0	217.3	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	1330649	200.0	228.5	
29 3-Chloro-1-propene	76	3.906	3.913	-0.007	88	293887	200.0	231.9	
30 Methyl acetate	43	3.925	3.925	0.000	96	1914014	1000.0	1033.4	
31 Methylene Chloride	84	4.125	4.132	-0.007	91	611401	200.0	212.7	
32 2-Methyl-2-propanol	59	4.381	4.369	0.012	93	426462	2000.0	1992.8	
33 Acrylonitrile	53	4.503	4.497	0.006	97	1961872	2000.0	2101.3	
34 trans-1,2-Dichloroethene	96	4.563	4.564	-0.001	97	548086	200.0	211.3	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	98	1687770	200.0	217.2	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.990	-0.001	91	736641	200.0	209.6	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	97	980644	200.0	211.2	
38 Vinyl acetate	43	5.239	5.239	0.000	97	867464	200.0	231.4	
43 cis-1,2-Dichloroethene	96	5.944	5.939	0.005	85	595718	200.0	211.2	
44 2-Butanone (MEK)	43	5.944	5.945	-0.001	98	470276	400.0	436.3	
42 2,2-Dichloropropane	77	5.944	5.945	-0.001	66	535345	200.0	228.0	
48 Chlorobromomethane	128	6.230	6.225	0.005	97	240962	200.0	212.7	
49 Tetrahydrofuran	42	6.243	6.237	0.005	83	305718	400.0	421.1	
50 Chloroform	83	6.376	6.371	0.005	94	959266	200.0	208.2	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	98	756837	200.0	222.3	
52 Cyclohexane	56	6.620	6.620	0.000	92	919827	200.0	210.8	
53 Carbon tetrachloride	117	6.717	6.717	0.000	97	536127	200.0	222.9	
54 1,1-Dichloropropene	75	6.729	6.730	-0.001	94	765806	200.0	209.1	
55 Isobutyl alcohol	41	6.906	6.900	0.006	92	375937	5000.0	5820.2	
56 Benzene	78	6.942	6.942	0.000	99	2066671	200.0	198.6	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	98	855052	200.0	204.0	
59 n-Heptane	43	7.307	7.307	0.000	87	588643	200.0	208.1	
61 Trichloroethene	130	7.678	7.679	-0.001	92	460676	200.0	212.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	915285	200.0	207.8	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	84	521174	200.0	209.7	
65 1,4-Dioxane	88	8.031	8.031	0.000	44	114196	4000.0	4654.3	M
67 Dibromomethane	93	8.037	8.037	0.000	92	323060	200.0	214.0	
68 Dichlorobromomethane	83	8.232	8.226	0.006	99	646107	200.0	227.8	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	94	745866	200.0	239.4	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	93	947711	400.0	445.4	
73 Toluene	91	9.010	9.011	-0.001	97	2002822	200.0	187.5	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	639831	200.0	236.0	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	671187	200.0	233.1	
76 1,1,2-Trichloroethane	97	9.448	9.449	-0.001	94	447467	200.0	202.6	
77 Tetrachloroethene	164	9.528	9.528	0.000	93	357911	200.0	196.5	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	93	805963	200.0	197.5	
79 2-Hexanone	43	9.655	9.656	-0.001	95	604727	400.0	432.8	
81 Chlorodibromomethane	129	9.826	9.826	0.000	91	351983	200.0	233.5	
82 Ethylene Dibromide	107	9.941	9.936	0.005	98	414395	200.0	212.0	
83 3-Chlorobenzotrifluoride	180	10.398	10.392	0.006	93	658293	200.0	192.5	
84 Chlorobenzene	112	10.428	10.428	0.000	90	1270819	200.0	193.6	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	626628	200.0	197.7	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.520	-0.001	90	410261	200.0	228.0	
87 Ethylbenzene	106	10.525	10.526	-0.001	98	745552	200.0	201.3	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	99	922542	200.0	200.7	
89 o-Xylene	106	11.042	11.037	0.005	96	942660	200.0	205.0	
90 Styrene	104	11.061	11.061	0.000	91	1451301	200.0	205.5	
91 Bromoform	173	11.243	11.243	0.000	93	188413	200.0	234.1	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	94	695569	200.0	198.6	
93 Isopropylbenzene	105	11.407	11.408	-0.001	99	2143689	200.0	194.9	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	595171	200.0	201.4	
95 Bromobenzene	156	11.724	11.724	0.000	98	533334	200.0	207.9	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.748	0.006	78	183338	200.0	225.3	
98 1,2,3-Trichloropropane	110	11.772	11.773	-0.001	84	202262	200.0	207.3	
99 N-Propylbenzene	120	11.827	11.827	0.000	98	613443	200.0	207.6	
100 2-Chlorotoluene	126	11.912	11.913	-0.001	93	510216	200.0	208.0	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	97	532252	200.0	206.6	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	1945327	200.0	202.5	
103 4-Chlorotoluene	126	12.040	12.034	0.006	100	540303	200.0	208.5	
104 tert-Butylbenzene	119	12.326	12.320	0.006	90	1580824	200.0	208.2	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	2003823	200.0	204.0	
107 1,2-dichloro-4-(trifluorom	214	12.423	12.418	0.005	96	562570	200.0	202.1	
108 sec-Butylbenzene	105	12.551	12.545	0.006	97	2257148	200.0	199.2	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	1017363	200.0	203.0	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	94	1952987	200.0	205.4	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	91	1040432	200.0	203.1	
113 2,4-Dichloro-1-(trifluorom	214	12.788	12.789	-0.001	93	585295	200.0	211.4	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	97	604585	200.0	195.5	
116 n-Butylbenzene	91	13.111	13.111	0.000	96	1931969	200.0	203.5	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	93	1013269	200.0	200.2	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	74	111156	200.0	239.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	95	2621988	600.0	595.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.473	14.474	-0.001	96	1989024	400.0	409.3	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	829845	200.0	211.6	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	97	324236	200.0	209.9	
124 Naphthalene	128	15.009	15.003	0.006	99	1744010	200.0	220.4	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	92	768952	200.0	209.6	
126 2,4,5-Trichlorotoluene	159	16.006	16.007	-0.001	0	568870	200.0	230.9	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	94	527070	200.0	225.5	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	422.6	
S 131 Xylenes, Total	106				0		400.0	405.8	
S 132 1,3-Dichloropropene, Total	1				0		400.0	475.4	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURRE_00039	Amount Added: 8.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 10.00	Units: uL	
voaWket1Reste_00001	Amount Added: 8.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 8.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 8.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 8.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D

Injection Date: 31-Jul-2015 16:01:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD40

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

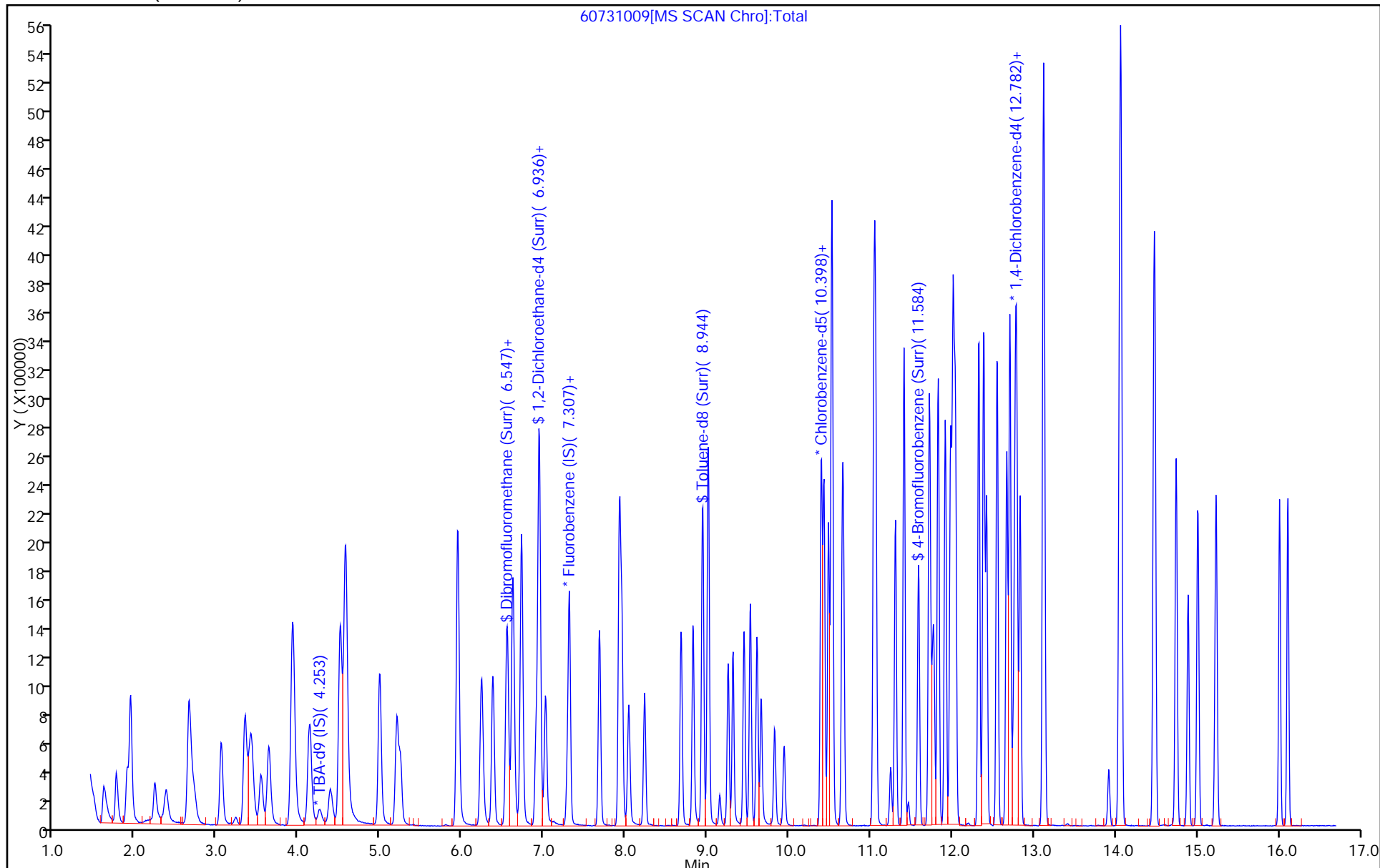
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



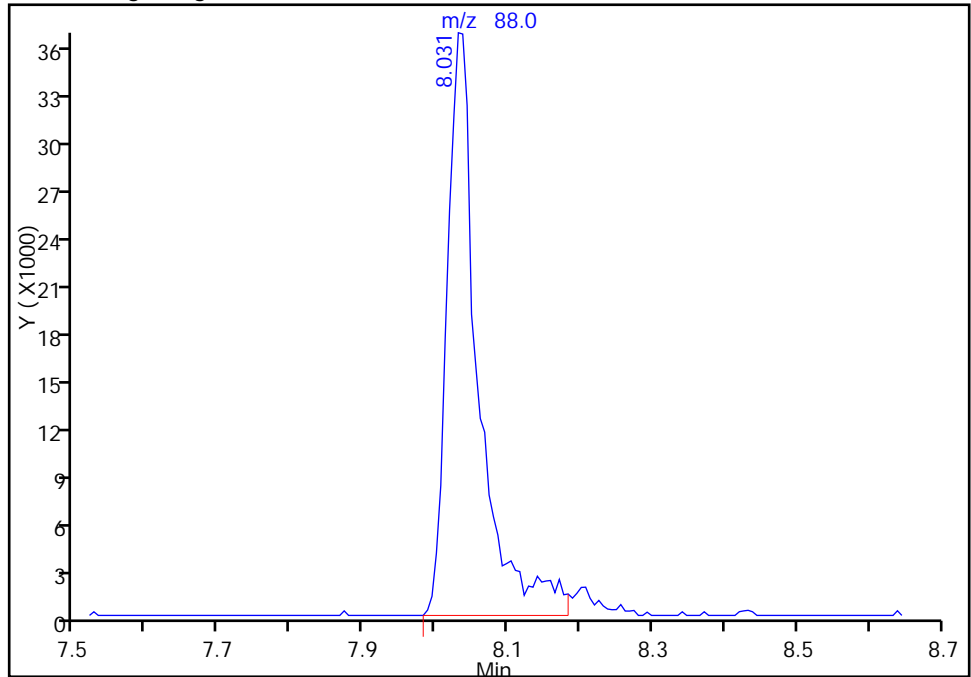
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731009.D  
Injection Date: 31-Jul-2015 16:01:30 Instrument ID: CHHP6  
Lims ID: IC VSTD40  
Client ID:  
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 9  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

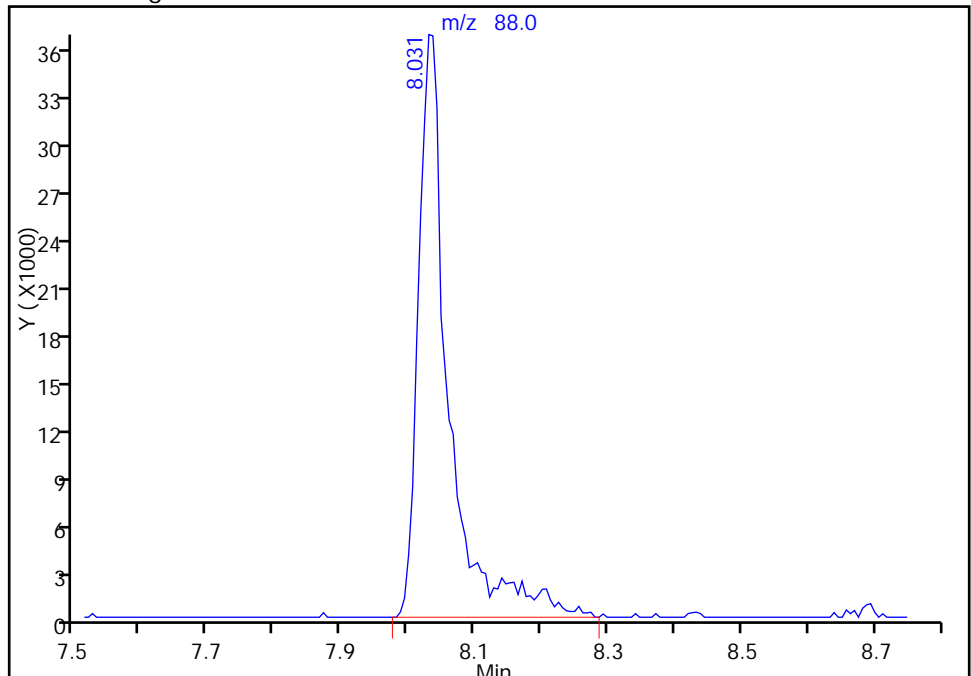
RT: 8.03  
Area: 109899  
Amount: 4509.0182  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 114196  
Amount: 4654.2617  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:06:32  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D  
 Lims ID: IC VSTD50  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 31-Jul-2015 16:25:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD50  
 Misc. Info.: 180-0007999-010  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:16:19 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last Ical File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 10:08:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.247	0.019	94	205888	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.289	-0.006	98	472902	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	113483	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	92	168220	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	92	510673	250.0	234.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	73	806396	250.0	229.5	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	1832665	250.0	204.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	80	863895	250.0	217.4	
11 Dichlorodifluoromethane	85	1.607	1.607	0.000	100	776950	250.0	237.3	
12 Chloromethane	50	1.759	1.759	0.000	99	661756	250.0	234.5	
13 Vinyl chloride	62	1.893	1.893	0.000	99	729853	250.0	240.1	
14 Butadiene	39	1.936	1.930	0.006	90	668636	250.0	234.6	
15 Bromomethane	94	2.228	2.228	0.000	91	301175	250.0	183.5	
16 Chloroethane	64	2.362	2.374	-0.012	98	495382	250.0	238.7	
17 Dichlorofluoromethane	67	2.647	2.654	-0.007	97	1120159	250.0	232.0	
18 Trichlorofluoromethane	101	2.660	2.678	-0.018	74	914267	250.0	237.4	
20 Ethyl ether	59	3.043	3.043	0.000	89	666334	250.0	244.1	
21 Acrolein	56	3.225	3.213	0.012	98	88331	275.0	296.7	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	98	604031	250.0	253.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.402	-0.006	95	613669	250.0	244.2	
24 Acetone	43	3.432	3.432	0.000	100	446823	500.0	534.1	
25 Iodomethane	142	3.530	3.530	0.000	99	830188	250.0	259.8	
26 Carbon disulfide	76	3.627	3.633	-0.006	100	1688724	250.0	273.8	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	87	379717	250.0	282.9	
30 Methyl acetate	43	3.925	3.925	0.000	96	2441128	1250.0	1244.3	
31 Methylene Chloride	84	4.126	4.132	-0.006	90	760977	250.0	250.8	
32 2-Methyl-2-propanol	59	4.387	4.369	0.018	93	559063	2500.0	2413.0	
33 Acrylonitrile	53	4.503	4.497	0.006	97	2461613	2500.0	2489.1	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	97	687783	250.0	250.4	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	98	2105039	250.0	255.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	92	945322	250.0	253.9	
37 1,1-Dichloroethane	63	5.196	5.196	0.000	96	1227440	250.0	249.6	
38 Vinyl acetate	43	5.239	5.239	0.000	97	1104555	250.0	278.2	
43 cis-1,2-Dichloroethene	96	5.945	5.939	0.006	83	751398	250.0	251.5	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	98	588377	500.0	515.3	
42 2,2-Dichloropropane	77	5.939	5.945	-0.006	66	694588	250.0	279.3	
48 Chlorobromomethane	128	6.225	6.225	0.000	97	308059	250.0	256.7	
49 Tetrahydrofuran	42	6.243	6.237	0.006	83	413888	500.0	538.2	
50 Chloroform	83	6.371	6.371	0.000	95	1195678	250.0	244.9	
51 1,1,1-Trichloroethane	97	6.535	6.541	-0.006	98	957300	250.0	265.4	
52 Cyclohexane	56	6.614	6.620	-0.006	91	1159567	250.0	250.9	
53 Carbon tetrachloride	117	6.717	6.717	0.000	89	690480	250.0	271.0	
54 1,1-Dichloropropene	75	6.729	6.730	-0.001	93	968671	250.0	249.7	
55 Isobutyl alcohol	41	6.900	6.900	0.000	91	482886	6250.0	7057.9	
56 Benzene	78	6.942	6.942	0.000	99	2526807	250.0	229.3	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	98	1055651	250.0	237.8	
59 n-Heptane	43	7.307	7.307	0.000	87	756814	250.0	252.6	
61 Trichloroethene	130	7.678	7.679	-0.001	93	577638	250.0	251.3	
63 Methylcyclohexane	83	7.922	7.922	0.000	91	1169092	250.0	250.6	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	86	664355	250.0	252.3	
65 1,4-Dioxane	88	8.031	8.031	0.000	44	139772	5000.0	5378.1	M
67 Dibromomethane	93	8.037	8.037	0.000	93	409028	250.0	255.8	
68 Dichlorobromomethane	83	8.232	8.226	0.006	99	821950	250.0	273.6	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	93	960857	250.0	291.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	93	1194590	500.0	512.0	
73 Toluene	91	9.011	9.011	0.000	97	2462377	250.0	210.3	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	837722	250.0	281.8	
75 Ethyl methacrylate	69	9.315	9.315	0.000	88	855316	250.0	270.9	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	93	567107	250.0	234.2	
77 Tetrachloroethene	164	9.522	9.528	-0.006	92	461983	250.0	231.3	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	92	1022129	250.0	228.4	
79 2-Hexanone	43	9.656	9.656	0.000	93	790089	500.0	515.7	
81 Chlorodibromomethane	129	9.820	9.826	-0.006	90	451973	250.0	273.4	
82 Ethylene Dibromide	107	9.942	9.936	0.006	98	526477	250.0	245.7	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	786880	250.0	209.9	
84 Chlorobenzene	112	10.428	10.428	0.000	89	1585885	250.0	220.3	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	739908	250.0	212.9	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.520	-0.001	49	519653	250.0	263.5	
87 Ethylbenzene	106	10.526	10.526	0.000	97	943999	250.0	232.5	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	97	1179895	250.0	234.2	
89 o-Xylene	106	11.043	11.037	0.006	96	1188451	250.0	235.8	
90 Styrene	104	11.061	11.061	0.000	93	1825312	250.0	235.8	
91 Bromoform	173	11.243	11.243	0.000	93	249108	250.0	282.3	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	94	831476	250.0	216.5	
93 Isopropylbenzene	105	11.408	11.408	0.000	99	2614965	250.0	216.8	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	764885	250.0	236.1	
95 Bromobenzene	156	11.724	11.724	0.000	98	665597	250.0	246.1	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.748	0.006	83	239026	250.0	278.7	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	257089	250.0	250.0	
99 N-Propylbenzene	120	11.827	11.827	0.000	96	793964	250.0	254.9	
100 2-Chlorotoluene	126	11.913	11.913	0.000	93	652311	250.0	252.3	
101 3-Chlorotoluene	126	11.979	11.980	-0.001	96	649907	250.0	239.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	96	2358116	250.0	232.9	
103 4-Chlorotoluene	126	12.034	12.034	0.000	99	684319	250.0	250.5	
104 tert-Butylbenzene	119	12.326	12.320	0.006	90	1949627	250.0	243.7	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	97	2433681	250.0	235.0	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	95	680073	250.0	231.8	
108 sec-Butylbenzene	105	12.545	12.545	0.000	96	2739728	250.0	229.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	92	1267194	250.0	239.9	
110 4-Isopropyltoluene	119	12.703	12.703	0.000	93	2392925	250.0	238.8	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	92	1287354	250.0	238.4	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	96	641375	250.0	219.8	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	97	781945	250.0	239.9	
116 n-Butylbenzene	91	13.111	13.111	0.000	95	2352259	250.0	235.1	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	95	1249514	250.0	234.3	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.920	-0.006	73	147337	250.0	301.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	93	3058923	750.0	659.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	95	2357462	500.0	460.3	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	92	1022001	250.0	247.3	
123 Hexachlorobutadiene	225	14.887	14.887	0.000	97	414314	250.0	254.5	
124 Naphthalene	128	15.003	15.003	0.000	98	2149836	250.0	257.7	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	92	953082	250.0	246.4	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	681135	250.0	262.3	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	630961	250.0	256.1	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		500.0	501.9	
S 131 Xylenes, Total	106				0		500.0	469.9	
S 132 1,3-Dichloropropene, Total	1				0		500.0	573.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260SURR_00039	Amount Added: 10.00	Units: uL	
voaWVA1st Res_00003	Amount Added: 10.00	Units: uL	
voaWket1Reste_00001	Amount Added: 10.00	Units: uL	
voaWeemix1Res_00001	Amount Added: 10.00	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 10.00	Units: uL	
voaWAcro2nd R_00006	Amount Added: 11.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D

Injection Date: 31-Jul-2015 16:25:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD50

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

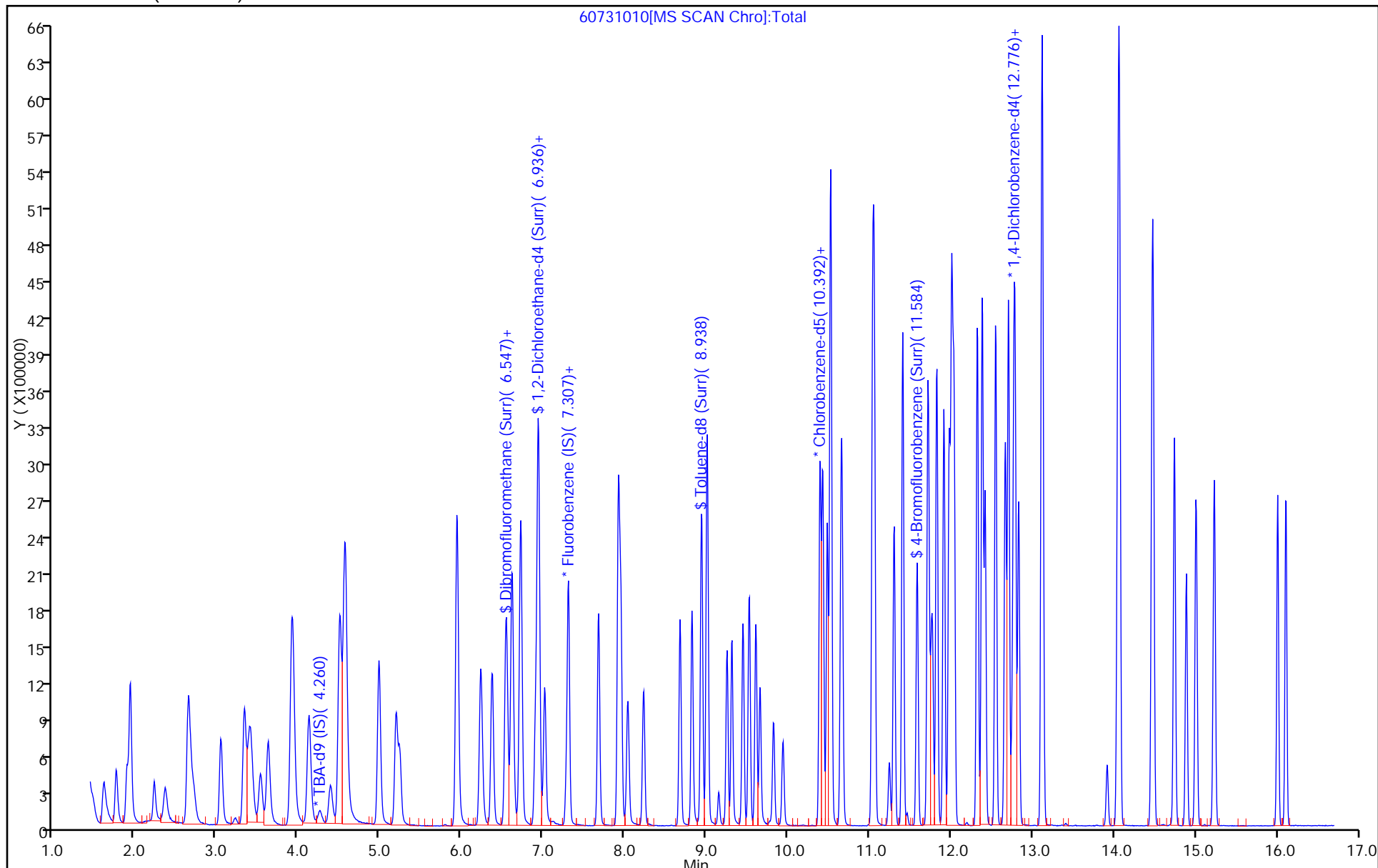
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



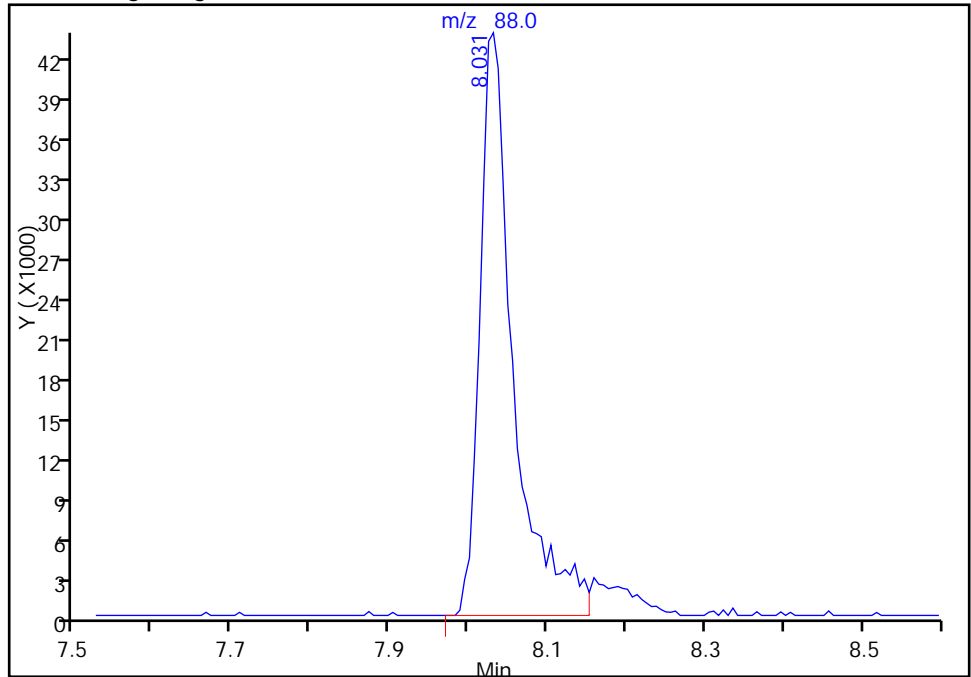
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731010.D  
Injection Date: 31-Jul-2015 16:25:30 Instrument ID: CHHP6  
Lims ID: IC VSTD50  
Client ID:  
Operator ID: 001562 ALS Bottle#: 10 Worklist Smp#: 10  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

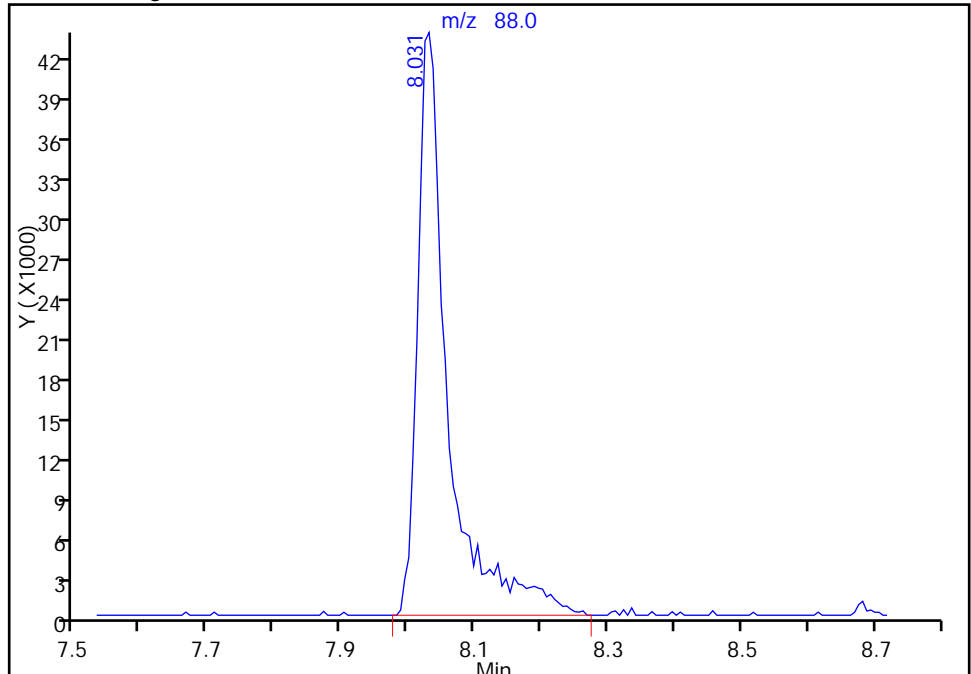
RT: 8.03  
Area: 130472  
Amount: 5026.0517  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 139772  
Amount: 5378.0842  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 10:08:16  
Audit Action: Manually Integrated  
Audit Reason: Peak Tail



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Lims ID: IC VSTD1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 31-Jul-2015 18:02:30 ALS Bottle#: 14 Worklist Smp#: 14  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: IC VSTD1  
 Misc. Info.: 180-0007999-014  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:57:05 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

First Level Reviewer: fergusond

Date: 03-Aug-2015 11:05:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.248	-0.006	92	162667	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	456532	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	92	93799	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	157240	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	89	11777	5.00	5.60	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	54	19952	5.00	5.88	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	41667	5.00	5.63	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.585	0.000	77	19549	5.00	5.95	
11 Dichlorodifluoromethane	85	1.614	1.608	0.006	97	17276	5.00	5.46	
12 Chloromethane	50	1.754	1.754	0.000	99	15485	5.00	5.68	
13 Vinyl chloride	62	1.887	1.888	-0.001	62	15792	5.00	5.38	
14 Butadiene	39	1.930	1.930	0.000	93	15290	5.00	5.56	
15 Bromomethane	94	2.234	2.228	0.006	96	9521	5.00	6.01	
16 Chloroethane	64	2.356	2.368	-0.012	92	9922	5.00	4.95	
17 Dichlorofluoromethane	67	2.648	2.648	0.000	96	24941	5.00	5.35	
18 Trichlorofluoromethane	101	2.684	2.660	0.024	51	19389	5.00	5.21	M
20 Ethyl ether	59	3.037	3.049	-0.012	90	14586	5.00	5.53	
21 Acrolein	56	3.220	3.220	0.000	99	28320	100.0	98.5	
22 1,1-Dichloroethene	96	3.335	3.341	-0.006	95	11872	5.00	5.17	
23 1,1,2-Trichloro-1,2,2-trif	101	3.396	3.390	0.006	53	13209	5.00	5.44	
24 Acetone	43	3.421	3.421	-0.001	99	22203	25.0	27.5	M
25 Iodomethane	142	3.542	3.536	0.006	81	14090	5.00	4.57	
26 Carbon disulfide	76	3.633	3.627	0.006	99	26146	5.00	4.39	
29 3-Chloro-1-propene	76	3.919	3.919	0.000	86	5562	5.00	4.29	
30 Methyl acetate	43	3.932	3.926	0.006	98	50033	25.0	26.4	
31 Methylene Chloride	84	4.132	4.132	0.000	94	30274	5.00	5.01	
32 2-Methyl-2-propanol	59	4.363	4.370	-0.007	86	9874	50.0	53.9	
33 Acrylonitrile	53	4.509	4.503	0.006	99	48723	50.0	51.0	M
34 trans-1,2-Dichloroethene	96	4.558	4.564	-0.006	70	13191	5.00	4.97	
35 Methyl tert-butyl ether	73	4.564	4.576	-0.012	98	41079	5.00	5.17	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.990	-0.006	91	19223	5.00	5.35	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	89	23168	5.00	4.88	
38 Vinyl acetate	43	5.246	5.240	0.006	96	17413	5.00	4.54	
43 cis-1,2-Dichloroethene	96	5.951	5.939	0.012	83	15010	5.00	5.20	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	97	26408	25.0	24.0	
42 2,2-Dichloropropane	77	5.939	5.945	-0.006	57	9613	5.00	4.00	
48 Chlorobromomethane	128	6.231	6.231	0.000	95	6120	5.00	5.28	
49 Tetrahydrofuran	42	6.249	6.249	0.000	82	8204	10.0	11.1	
50 Chloroform	83	6.371	6.371	0.000	94	23924	5.00	5.08	
51 1,1,1-Trichloroethane	97	6.547	6.541	0.006	96	15055	5.00	4.32	M
52 Cyclohexane	56	6.608	6.620	-0.012	88	22688	5.00	5.09	
53 Carbon tetrachloride	117	6.712	6.718	-0.006	92	10435	5.00	4.24	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	90	17924	5.00	4.79	
55 Isobutyl alcohol	41	6.900	6.900	0.000	80	7317	125.0	110.8	M
56 Benzene	78	6.943	6.943	0.000	96	59844	5.00	5.62	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	98	23604	5.00	5.51	
59 n-Heptane	43	7.302	7.308	-0.006	86	14990	5.00	5.18	
61 Trichloroethene	130	7.679	7.679	0.000	89	11389	5.00	5.13	
63 Methylcyclohexane	83	7.916	7.922	-0.006	88	22772	5.00	5.06	
64 1,2-Dichloropropane	63	7.947	7.953	-0.006	86	13712	5.00	5.39	
65 1,4-Dioxane	88	8.026	8.032	-0.006	39	2321	100.0	92.5	
67 Dibromomethane	93	8.032	8.038	-0.006	92	7749	5.00	5.02	
68 Dichlorobromomethane	83	8.226	8.227	-0.001	96	11941	5.00	4.12	
71 cis-1,3-Dichloropropene	75	8.683	8.677	0.006	90	11797	5.00	3.70	
72 4-Methyl-2-pentanone (MIBK)	43	8.829	8.823	0.006	96	42150	25.0	21.9	
73 Toluene	91	9.011	9.011	0.000	98	55394	5.00	5.72	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	97	8162	5.00	3.32	
75 Ethyl methacrylate	69	9.315	9.315	0.000	87	9928	5.00	3.80	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	91	10927	5.00	5.46	
77 Tetrachloroethene	164	9.528	9.522	0.006	90	9096	5.00	5.51	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	91	19746	5.00	5.34	
79 2-Hexanone	43	9.656	9.656	0.000	96	27957	25.0	22.1	
81 Chlorodibromomethane	129	9.826	9.826	0.000	88	4662	5.00	3.41	
82 Ethylene Dibromide	107	9.942	9.942	0.000	93	8796	5.00	4.97	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	56	18146	5.00	5.86	
84 Chlorobenzene	112	10.429	10.429	0.000	93	33099	5.00	5.56	
85 4-Chlorobenzotrifluoride	180	10.490	10.483	0.007	96	15713	5.00	5.47	
86 1,1,1,2-Tetrachloroethane	131	10.514	10.520	-0.006	40	6472	5.00	3.97	
87 Ethylbenzene	106	10.532	10.526	0.006	98	17773	5.00	5.30	
88 m-Xylene & p-Xylene	106	10.654	10.660	-0.006	97	21283	5.00	5.11	
89 o-Xylene	106	11.037	11.043	-0.006	96	20074	5.00	4.82	
90 Styrene	104	11.061	11.061	0.000	93	28385	5.00	4.44	
91 Bromoform	173	11.244	11.244	0.000	35	2602	5.00	3.57	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	92	16686	5.00	5.26	
93 Isopropylbenzene	105	11.408	11.408	0.000	96	49505	5.00	4.97	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	73	13623	5.00	5.09	
95 Bromobenzene	156	11.724	11.725	-0.001	96	12814	5.00	5.07	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	51	3433	5.00	4.28	
98 1,2,3-Trichloropropane	110	11.773	11.767	0.006	83	4898	5.00	5.10	
99 N-Propylbenzene	120	11.822	11.828	-0.006	99	13092	5.00	4.50	
100 2-Chlorotoluene	126	11.919	11.913	0.006	93	11155	5.00	4.62	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	11861	5.00	4.67	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	43612	5.00	4.61	
103 4-Chlorotoluene	126	12.035	12.041	-0.006	98	12056	5.00	4.72	
104 tert-Butylbenzene	119	12.321	12.321	0.000	92	34048	5.00	4.55	
106 1,2,4-Trimethylbenzene	105	12.381	12.382	-0.001	98	41890	5.00	4.33	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	96	14947	5.00	5.45	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	50094	5.00	4.49	
109 1,3-Dichlorobenzene	146	12.661	12.667	-0.006	88	25334	5.00	5.13	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	40061	5.00	4.28	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	88	25908	5.00	5.13	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	92	13852	5.00	5.08	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	94	17529	5.00	5.75	
116 n-Butylbenzene	91	13.111	13.112	-0.001	98	43104	5.00	4.61	
117 1,2-Dichlorobenzene	146	13.130	13.124	0.006	93	27271	5.00	5.47	
118 1,2-Dibromo-3-Chloropropan	75	13.921	13.921	0.000	62	1637	5.00	3.58	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.054	14.061	-0.007	98	64430	15.0	14.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.474	0.006	97	44720	10.0	9.34	
122 1,2,4-Trichlorobenzene	180	14.742	14.736	0.006	88	18465	5.00	4.78	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	91	7049	5.00	4.63	
124 Naphthalene	128	15.010	15.004	0.006	97	30879	5.00	3.96	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	92	18575	5.00	5.14	
126 2,4,5-Trichlorotoluene	159	16.013	16.007	0.006	0	10257	5.00	4.23	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	93	10609	5.00	4.61	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	10.2	
S 131 Xylenes, Total	106				0		10.0	9.93	
S 132 1,3-Dichloropropene, Total	1				0		10.0	7.03	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

### Reagents:

VOA8260SURR_00039	Amount Added: 0.20	Units: uL	
VOA8260VOAPRI_00134	Amount Added: 0.20	Units: uL	
voaWVA1st Res_00003	Amount Added: 0.20	Units: uL	
voaWeemix1Res_00001	Amount Added: 0.20	Units: uL	
voaWket1Reste_00001	Amount Added: 0.80	Units: uL	
voaWAcro2nd R_00006	Amount Added: 4.00	Units: uL	
VOA8260INT_00039	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D

Injection Date: 31-Jul-2015 18:02:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: IC VSTD1

Worklist Smp#: 14

Client ID:

Purge Vol: 5.000 mL

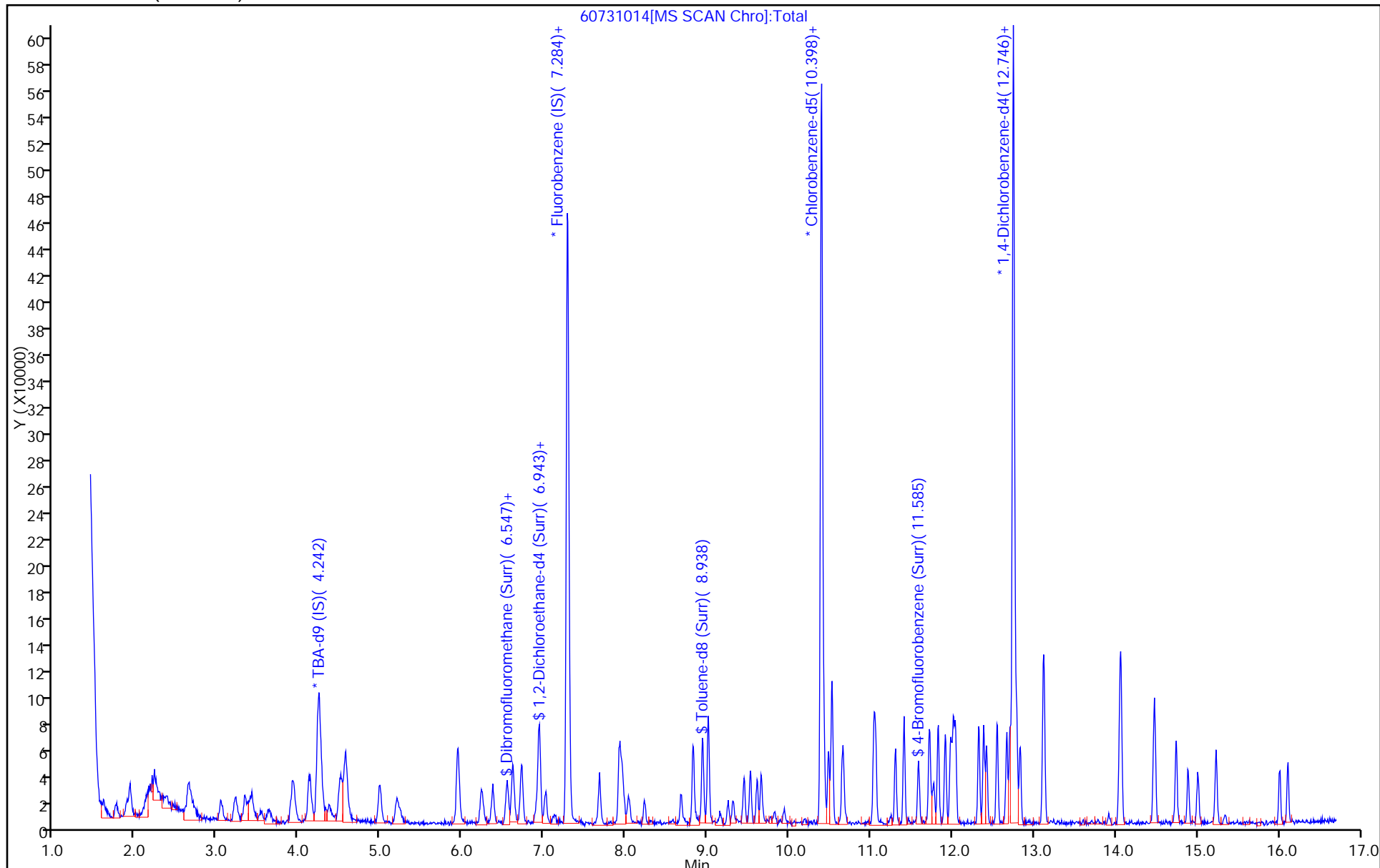
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



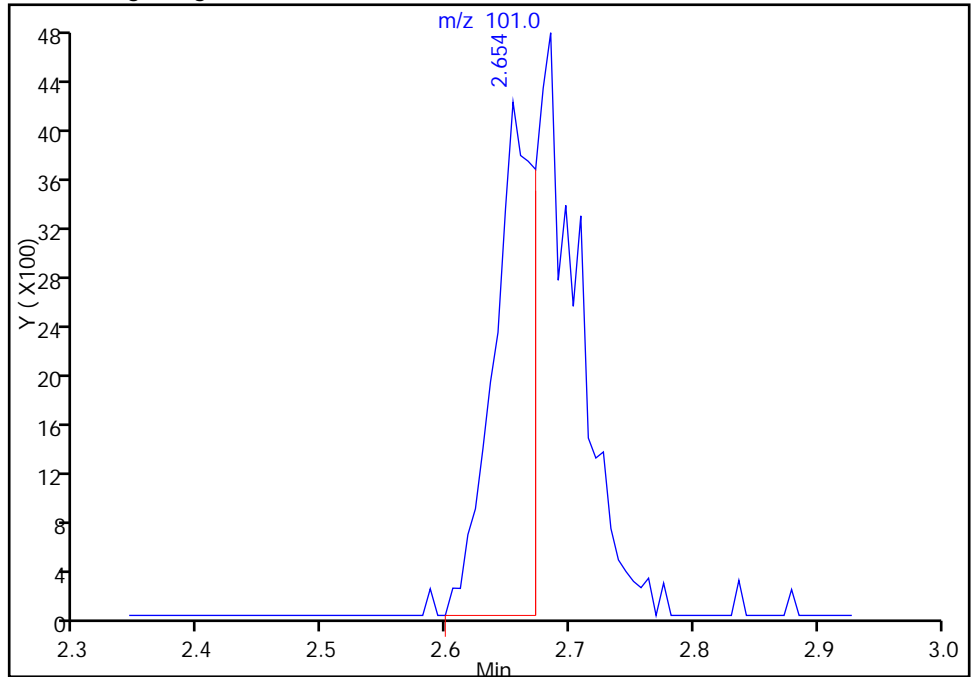
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

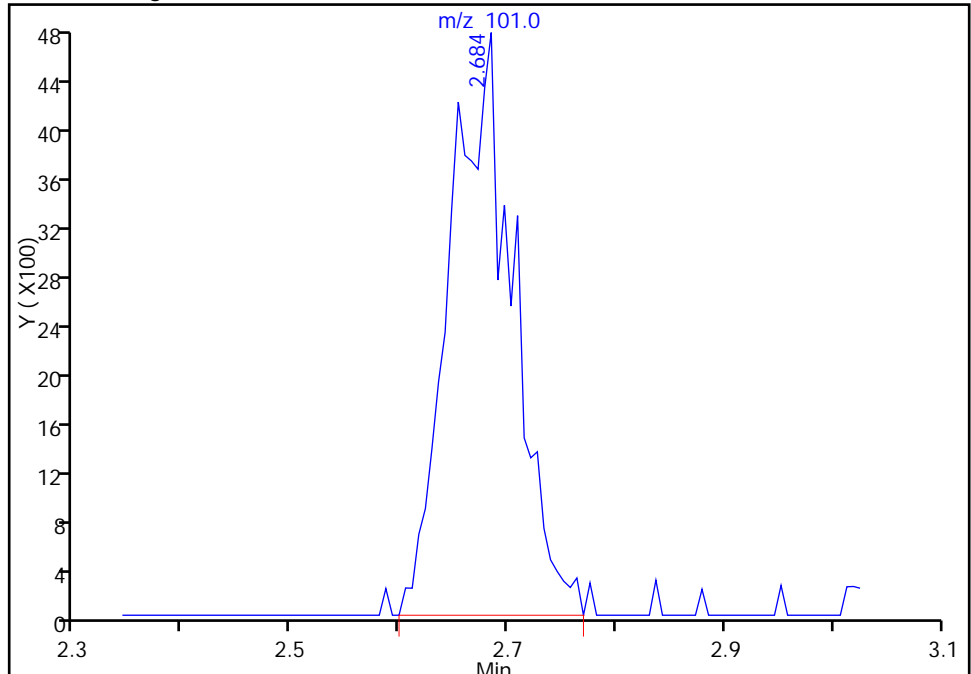
RT: 2.65  
Area: 9483  
Amount: 2.504798  
Amount Units: ng

Processing Integration Results



RT: 2.68  
Area: 19389  
Amount: 5.214616  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

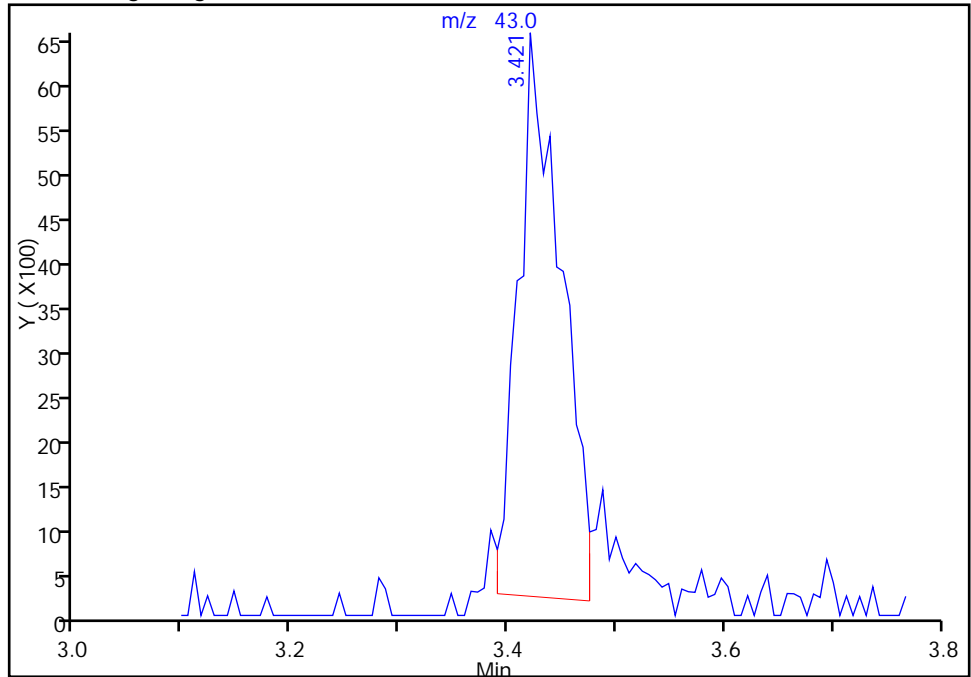
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

24 Acetone, CAS: 67-64-1

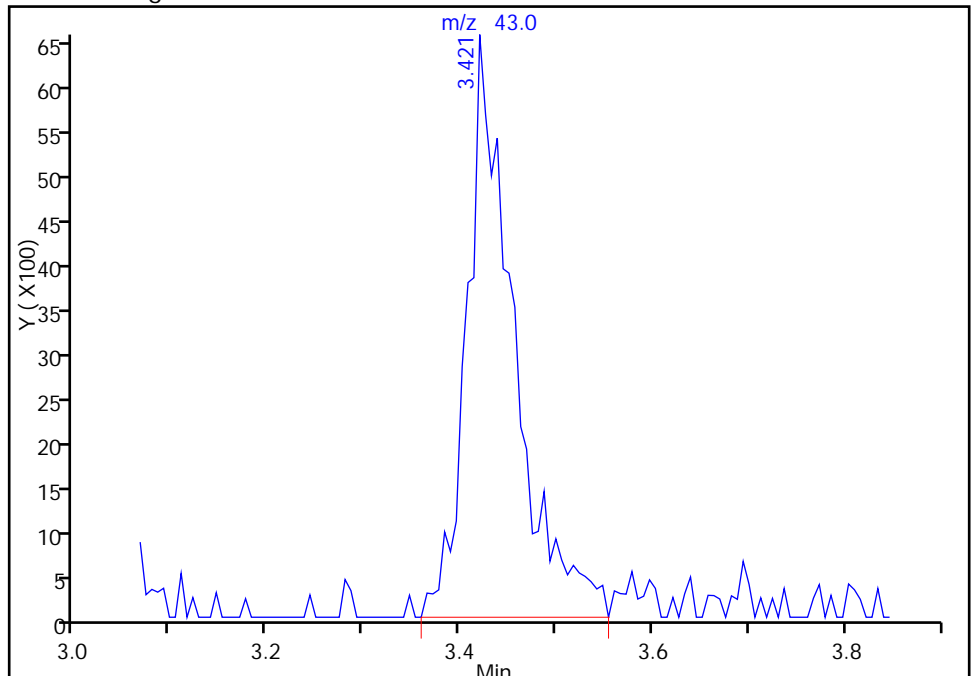
RT: 3.42  
Area: 17621  
Amount: 21.931508  
Amount Units: ng

Processing Integration Results



RT: 3.42  
Area: 22203  
Amount: 27.489890  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

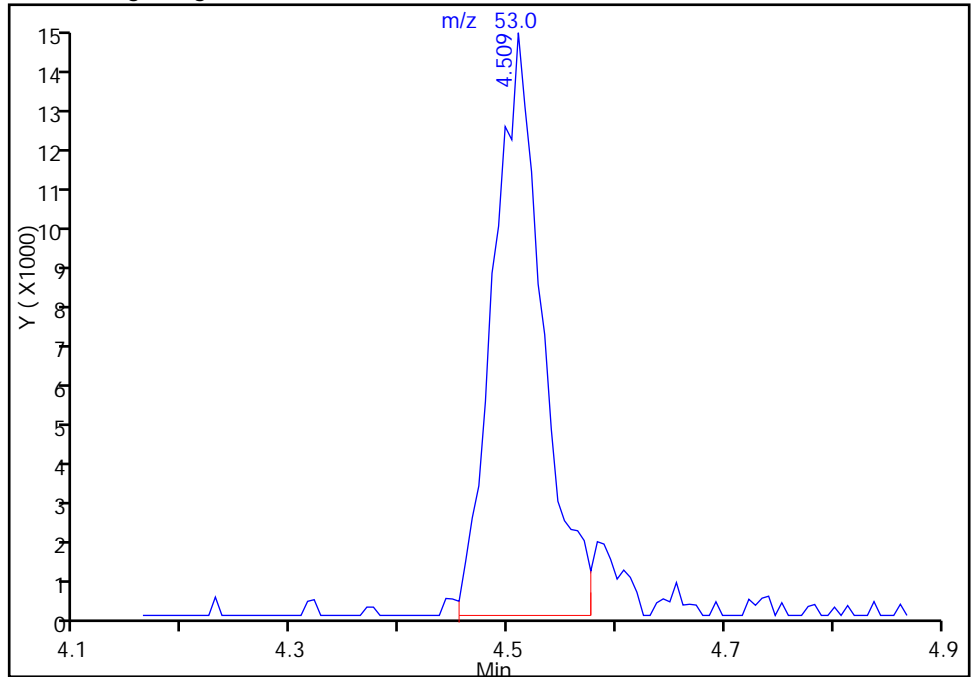
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1

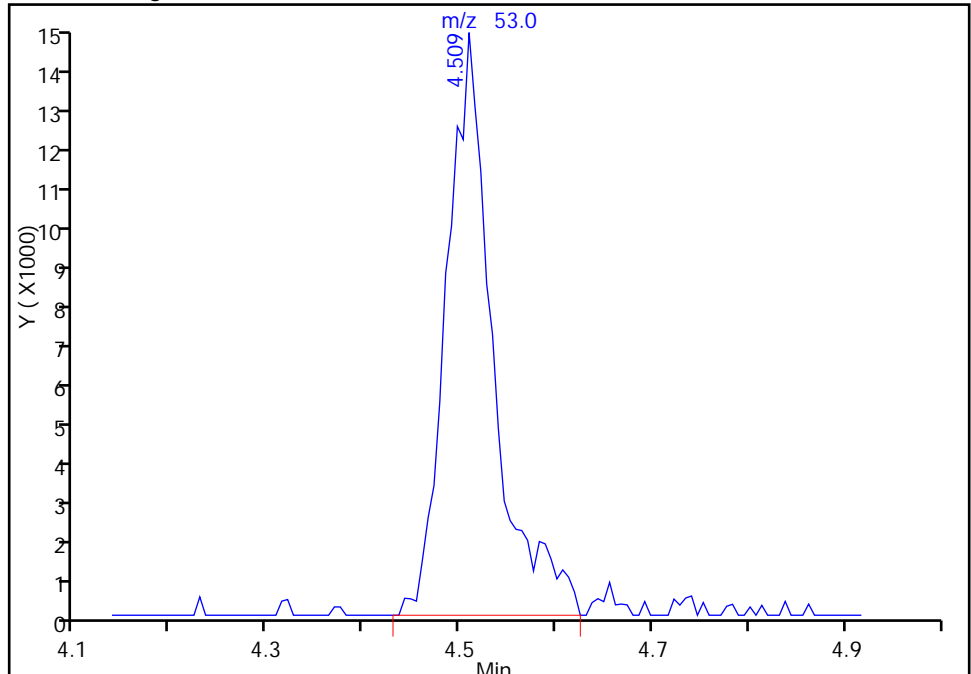
RT: 4.51  
Area: 45326  
Amount: 48.323975  
Amount Units: ng

Processing Integration Results



RT: 4.51  
Area: 48723  
Amount: 51.033411  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

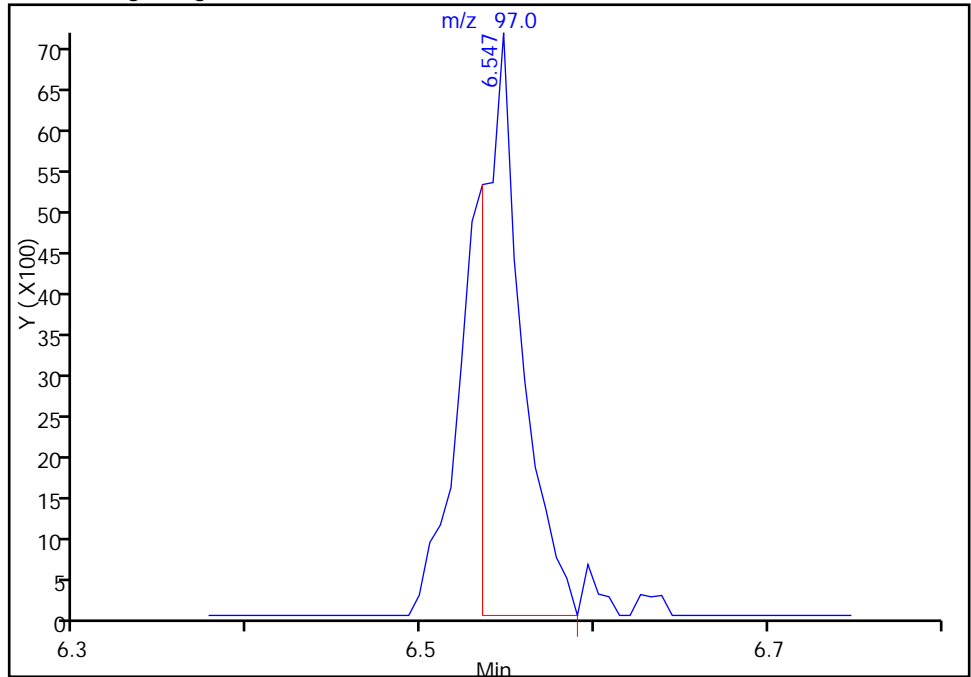
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

51 1,1,1-Trichloroethane, CAS: 71-55-6

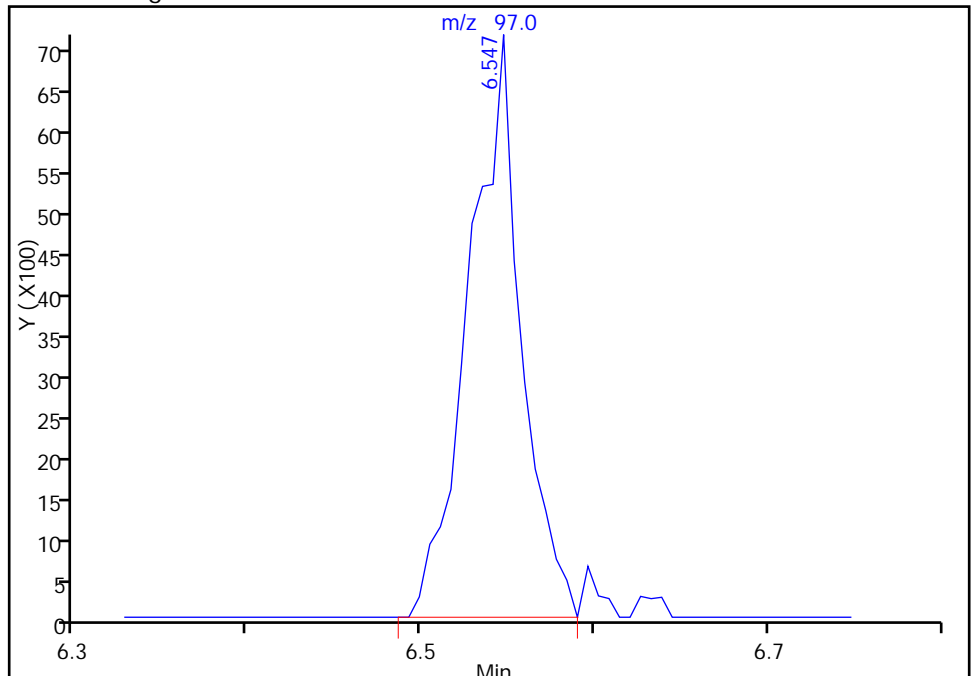
RT: 6.55  
Area: 10745  
Amount: 3.045023  
Amount Units: ng

Processing Integration Results



RT: 6.55  
Area: 15055  
Amount: 4.323691  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography



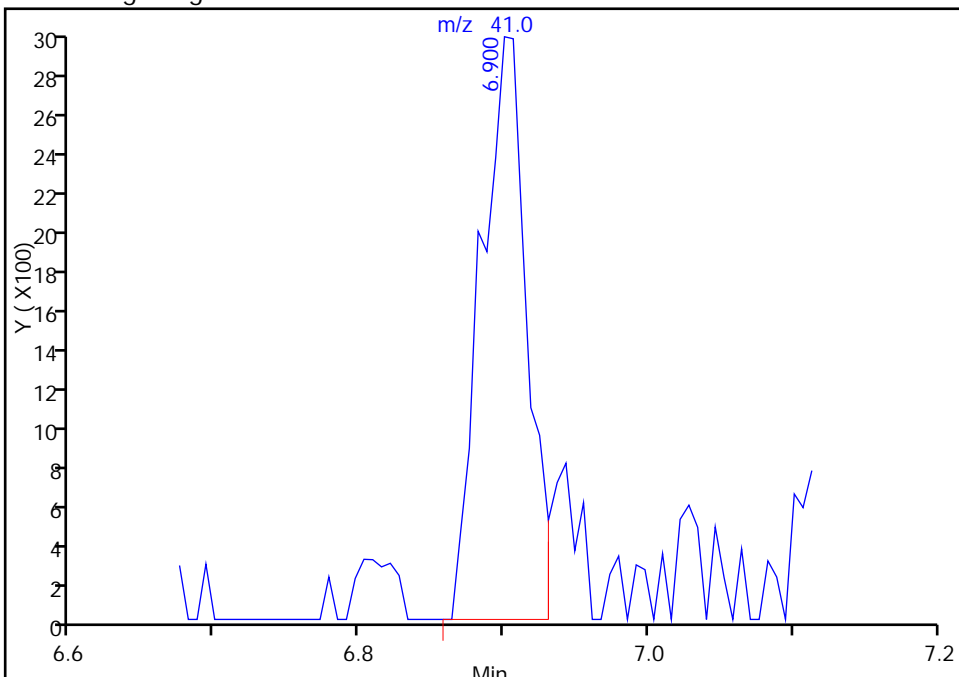
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
Injection Date: 31-Jul-2015 18:02:30 Instrument ID: CHHP6  
Lims ID: IC VSTD1  
Client ID:  
Operator ID: 001562 ALS Bottle#: 14 Worklist Smp#: 14  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

55 Isobutyl alcohol, CAS: 78-83-1

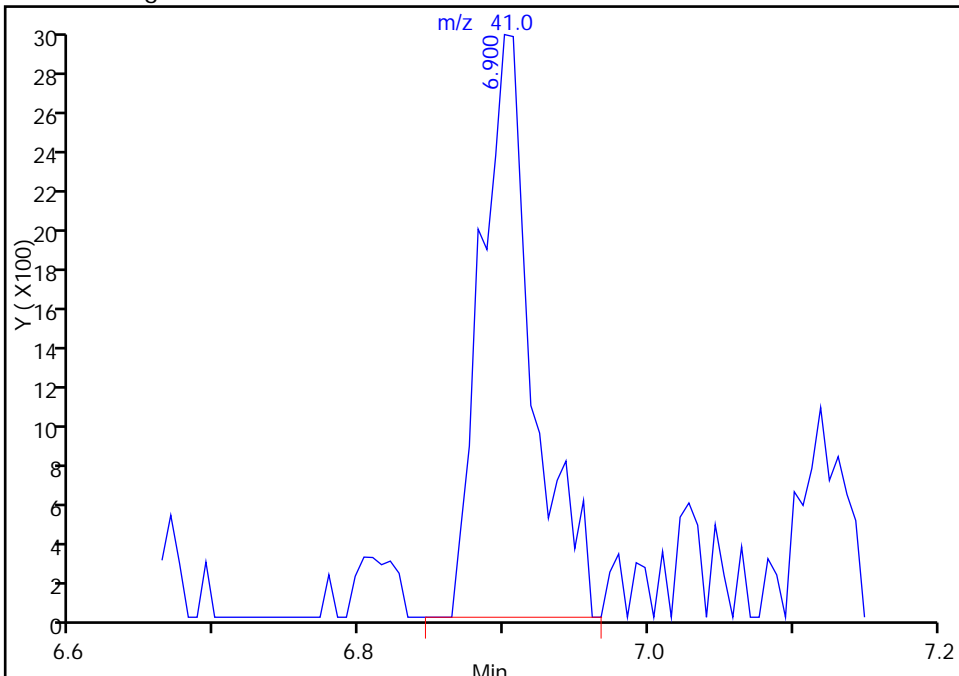
RT: 6.90  
Area: 6443  
Amount: 97.511814  
Amount Units: ng

Processing Integration Results



RT: 6.90  
Area: 7317  
Amount: 110.7809  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 03-Aug-2015 11:05:58  
Audit Action: Manually Integrated  
Audit Reason: Poor chromatography

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155089/2 Calibration Date: 09/28/2015 11:03  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60928002.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	0.3462	0.3043	0.1000	8.79	10.0	-12.1	20.0
Chloromethane	Ave	0.2984	0.3100	0.1000	10.4	10.0	3.9	20.0
Vinyl chloride	Ave	0.3214	0.3022	0.1000	9.40	10.0	-6.0	20.0
1,3-Butadiene	Ave	0.3013	0.3381	0.0100	11.2	10.0	12.2	20.0
Bromomethane	Ave	0.1735	0.1407	0.0500	8.11	10.0	-18.9	20.0
Chloroethane	Ave	0.2194	0.1907	0.0500	8.69	10.0	-13.1	20.0
Dichlorofluoromethane	Ave	0.5106	0.4478	0.0100	8.77	10.0	-12.3	20.0
Trichlorofluoromethane	Ave	0.4072	0.3440	0.1000	8.45	10.0	-15.5	20.0
Ethyl ether	Ave	0.2886	0.2856	0.0100	9.89	10.0	-1.1	20.0
Acrolein	Ave	0.0315	0.0254	0.0100	24.2	30.0	-19.4	20.0
1,1-Dichloroethene	Ave	0.2517	0.2389	0.1000	9.49	10.0	-5.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2657	0.2475	0.1000	9.31	10.0	-6.9	20.0
Acetone	Ave	0.0885	0.0865	0.0500	19.6	20.0	-2.2	20.0
Iodomethane	Ave	0.3379	0.3534	0.0100	10.5	10.0	4.6	20.0
Carbon disulfide	Ave	0.6522	0.6368	0.1000	9.76	10.0	-2.4	20.0
Allyl chloride	Ave	0.1419	0.1377	0.0100	9.70	10.0	-3.0	20.0
Methyl acetate	Ave	0.2074	0.2371	0.1000	57.1	50.0	14.3	20.0
Methylene Chloride	Lin2		0.3036	0.1000	8.56	10.0	-14.4	20.0
tert-Butyl alcohol	Ave	1.125	1.045	0.0100	92.9	100	-7.1	20.0
Acrylonitrile	Ave	0.1046	0.1091	0.0100	104	100	4.4	20.0
trans-1,2-Dichloroethene	Ave	0.2905	0.2655	0.1000	9.14	10.0	-8.6	20.0
Methyl tert-butyl ether	Ave	0.8703	0.8010	0.1000	9.20	10.0	-8.0	20.0
Hexane	Ave	0.3936	0.4611	0.0100	11.7	10.0	17.1	20.0
1,1-Dichloroethane	Ave	0.5200	0.5183	0.2000	9.97	10.0	-0.3	20.0
Vinyl acetate	Ave	0.4197	0.4614	0.0100	11.0	10.0	9.9	20.0
cis-1,2-Dichloroethene	Ave	0.3158	0.2973	0.1000	9.41	10.0	-5.9	20.0
2,2-Dichloropropane	Ave	0.2629	0.2411	0.0100	9.17	10.0	-8.3	20.0
2-Butanone (MEK)	Ave	0.1207	0.1349	0.0500	22.3	20.0	11.7	20.0
Bromochloromethane	Ave	0.1269	0.1193	0.0100	9.40	10.0	-6.0	20.0
Tetrahydrofuran	Ave	0.0813	0.0961	0.0100	23.6	20.0	18.1	20.0
Chloroform	Ave	0.5161	0.4723	0.2000	9.15	10.0	-8.5	20.0
1,1,1-Trichloroethane	Ave	0.3814	0.3623	0.1000	9.50	10.0	-5.0	20.0
Cyclohexane	Ave	0.4886	0.5468	0.1000	11.2	10.0	11.9	20.0
Carbon tetrachloride	Ave	0.2694	0.2700	0.1000	10.0	10.0	0.2	20.0
1,1-Dichloropropene	Ave	0.4102	0.4065	0.0100	9.91	10.0	-0.9	20.0
Isobutyl alcohol	Ave	0.0072	0.0077*	0.0100	266	250	6.4	20.0
Benzene	Ave	1.165	1.160	0.5000	9.95	10.0	-0.5	20.0
1,2-Dichloroethane	Ave	0.4694	0.4581	0.1000	9.76	10.0	-2.4	20.0
n-Heptane	Ave	0.3168	0.4341	0.0100	13.7	10.0	37.0*	20.0
Trichloroethene	Ave	0.2430	0.2663	0.2000	11.0	10.0	9.6	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155089/2 Calibration Date: 09/28/2015 11:03  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60928002.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
Methylcyclohexane	Ave	0.4932	0.4857	0.1000	9.85	10.0	-1.5	20.0
1,2-Dichloropropane	Ave	0.2784	0.2979	0.1000	10.7	10.0	7.0	20.0
1,4-Dioxane	Ave	0.0027	0.0028*	0.0100	203	200	1.7	20.0
Dibromomethane	Ave	0.1690	0.1602	0.0100	9.48	10.0	-5.2	20.0
Bromodichloromethane	Ave	0.3176	0.2996	0.2000	9.43	10.0	-5.7	20.0
cis-1,3-Dichloropropene	Ave	0.3489	0.3780	0.2000	10.8	10.0	8.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.028	1.000	0.1000	19.5	20.0	-2.7	20.0
Toluene	Ave	5.159	5.048	0.4000	9.78	10.0	-2.2	20.0
trans-1,3-Dichloropropene	Ave	1.310	1.325	0.1000	10.1	10.0	1.1	20.0
Ethyl methacrylate	Ave	1.391	1.420	0.0100	10.2	10.0	2.1	20.0
1,1,2-Trichloroethane	Ave	1.067	1.008	0.1000	9.45	10.0	-5.5	20.0
Tetrachloroethene	Ave	0.8800	0.9364	0.2000	10.6	10.0	6.4	20.0
1,3-Dichloropropane	Ave	1.971	1.952	0.0100	9.90	10.0	-1.0	20.0
2-Hexanone	Ave	0.6750	0.8336	0.1000	24.7	20.0	23.5*	20.0
Dibromochloromethane	Ave	0.7283	0.7527	0.1000	10.3	10.0	3.4	20.0
1,2-Dibromoethane (EDB)	Ave	0.9442	0.9452	0.1000	10.0	10.0	0.1	20.0
3-Chlorobenzotrifluoride	Ave	1.652	1.712	0.0100	10.4	10.0	3.6	20.0
Chlorobenzene	Ave	3.171	3.208	0.5000	10.1	10.0	1.2	20.0
4-Chlorobenzotrifluoride	Ave	1.531	1.582	0.0100	10.3	10.0	3.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8691	0.9282	0.0100	10.7	10.0	6.8	20.0
Ethylbenzene	Ave	1.789	1.823	0.1000	10.2	10.0	1.9	20.0
m-Xylene & p-Xylene	Ave	2.220	2.289	0.1000	10.3	10.0	3.1	20.0
o-Xylene	Ave	2.221	2.208	0.3000	9.94	10.0	-0.6	20.0
Styrene	Ave	3.411	3.537	0.3000	10.4	10.0	3.7	20.0
Bromoform	Ave	0.3887	0.4222	0.1000	10.9	10.0	8.6	20.0
2-Chlorobenzotrifluoride	Ave	1.692	1.685	0.0100	9.96	10.0	-0.4	20.0
Isopropylbenzene	Ave	5.314	5.489	0.1000	10.3	10.0	3.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.428	1.239	0.3000	8.68	10.0	-13.2	20.0
Bromobenzene	Ave	0.8038	0.8279	0.0100	10.3	10.0	3.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2549	0.2221	0.0100	8.71	10.0	-12.9	20.0
1,2,3-Trichloropropane	Ave	0.3057	0.2693	0.0100	8.81	10.0	-11.9	20.0
N-Propylbenzene	Ave	0.9257	0.9103	0.0100	9.83	10.0	-1.7	20.0
2-Chlorotoluene	Ave	0.7686	0.7704	0.0100	10.0	10.0	0.2	20.0
3-Chlorotoluene	Ave	0.8072	0.8128	0.0100	10.1	10.0	0.7	20.0
1,3,5-Trimethylbenzene	Ave	3.010	2.912	0.0100	9.68	10.0	-3.2	20.0
4-Chlorotoluene	Ave	0.8119	0.7869	0.0100	9.69	10.0	-3.1	20.0
tert-Butylbenzene	Ave	2.378	2.288	0.0100	9.62	10.0	-3.8	20.0
1,2,4-Trimethylbenzene	Ave	3.078	2.981	0.0100	9.69	10.0	-3.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8719	0.8556	0.0100	9.81	10.0	-1.9	20.0
sec-Butylbenzene	Ave	3.550	3.439	0.0100	9.69	10.0	-3.1	20.0
1,3-Dichlorobenzene	Ave	1.570	1.476	0.6000	9.40	10.0	-6.0	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155089/2 Calibration Date: 09/28/2015 11:03  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60928002.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	2.979	2.784	0.0100	9.35	10.0	-6.5	20.0
1,4-Dichlorobenzene	Ave	1.605	1.560	0.5000	9.72	10.0	-2.8	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8674	0.8549	0.0100	9.86	10.0	-1.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9687	0.8947	0.0100	9.24	10.0	-7.6	20.0
n-Butylbenzene	Ave	2.974	2.698	0.0100	9.07	10.0	-9.3	20.0
1,2-Dichlorobenzene	Ave	1.585	1.442	0.4000	9.09	10.0	-9.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1454	0.1102	0.0500	7.58	10.0	-24.2*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.380	1.235	0.0100	26.9	30.0	-10.5	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.522	1.347	0.0100	17.7	20.0	-11.5	20.0
1,2,4-Trichlorobenzene	Ave	1.229	1.099	0.2000	8.94	10.0	-10.6	20.0
Hexachlorobutadiene	Ave	0.4839	0.4632	0.0100	9.57	10.0	-4.3	20.0
Naphthalene	Ave	2.479	2.398	0.0100	9.67	10.0	-3.3	20.0
1,2,3-Trichlorobenzene	Ave	1.150	0.9934	0.0100	8.64	10.0	-13.6	20.0
2,4,5-Trichlorotoluene	Ave	0.7719	0.6681	0.0100	8.66	10.0	-13.4	20.0
2,3,6-Trichlorotoluene	Ave	0.7323	0.6491	0.0100	8.86	10.0	-11.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2303	0.2200		9.55	10.0	-4.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3715	0.3523		9.48	10.0	-5.2	20.0
Toluene-d8 (Surr)	Ave	3.944	3.867		9.81	10.0	-1.9	20.0
4-Bromofluorobenzene (Surr)	Ave	1.751	1.612		9.21	10.0	-7.9	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 28-Sep-2015 11:03:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008724-002  
 Operator ID: 034635 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 13:27:51 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 28-Sep-2015 11:24:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.241	0.000	92	194313	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.283	0.000	97	501521	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	120842	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	97	193962	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.547	6.547	0.000	94	110311	50.0	47.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.930	0.000	74	176677	50.0	47.4	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	467342	50.0	49.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	85	194837	50.0	46.0	
11 Dichlorodifluoromethane	85	1.613	1.613	0.000	100	152632	50.0	43.9	
12 Chloromethane	50	1.765	1.765	0.000	99	155491	50.0	51.9	
13 Vinyl chloride	62	1.905	1.905	0.000	98	151570	50.0	47.0	
14 Butadiene	39	1.942	1.942	0.000	97	169550	50.0	56.1	
15 Bromomethane	94	2.240	2.240	0.000	91	70556	50.0	40.5	
16 Chloroethane	64	2.380	2.380	0.000	99	95629	50.0	43.5	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	99	224577	50.0	43.9	
18 Trichlorofluoromethane	101	2.684	2.684	0.000	94	172520	50.0	42.2	
20 Ethyl ether	59	3.037	3.037	0.000	94	143222	50.0	49.5	
21 Acrolein	56	3.213	3.213	0.000	99	38175	150.0	120.9	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	95	119805	50.0	47.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.402	3.402	0.000	94	124099	50.0	46.6	
24 Acetone	43	3.426	3.426	0.000	76	86787	100.0	97.8	
25 Iodomethane	142	3.530	3.530	0.000	100	177220	50.0	52.3	
26 Carbon disulfide	76	3.633	3.633	0.000	99	319379	50.0	48.8	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	65	69054	50.0	48.5	
30 Methyl acetate	43	3.919	3.919	0.000	97	594429	250.0	285.7	
31 Methylene Chloride	84	4.126	4.126	0.000	98	152274	50.0	42.8	
32 2-Methyl-2-propanol	59	4.387	4.387	0.000	90	101545	500.0	464.4	
33 Acrylonitrile	53	4.503	4.503	0.000	97	547353	500.0	521.9	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	94	133138	50.0	45.7	
35 Methyl tert-butyl ether	73	4.564	4.564	0.000	99	401721	50.0	46.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	94	231245	50.0	58.6	
37 1,1-Dichloroethane	63	5.190	5.190	0.000	97	259937	50.0	49.8	
38 Vinyl acetate	43	5.239	5.239	0.000	98	231378	50.0	55.0	
43 cis-1,2-Dichloroethene	96	5.933	5.933	0.000	85	149119	50.0	47.1	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	68	120922	50.0	45.9	
44 2-Butanone (MEK)	43	5.951	5.951	0.000	68	135283	100.0	111.7	
48 Chlorobromomethane	128	6.225	6.225	0.000	91	59807	50.0	47.0	
49 Tetrahydrofuran	42	6.243	6.243	0.000	89	96353	100.0	118.1	
50 Chloroform	83	6.371	6.371	0.000	95	236883	50.0	45.8	
51 1,1,1-Trichloroethane	97	6.535	6.535	0.000	96	181676	50.0	47.5	
52 Cyclohexane	56	6.620	6.620	0.000	96	274231	50.0	56.0	
53 Carbon tetrachloride	117	6.717	6.717	0.000	96	135416	50.0	50.1	
54 1,1-Dichloropropene	75	6.730	6.730	0.000	92	203866	50.0	49.6	
55 Isobutyl alcohol	41	6.900	6.900	0.000	92	96517	1250.0	1330.2	
56 Benzene	78	6.942	6.942	0.000	98	581610	50.0	49.8	
57 1,2-Dichloroethane	62	7.015	7.015	0.000	98	229735	50.0	48.8	
59 n-Heptane	43	7.307	7.307	0.000	95	217719	50.0	68.5	
61 Trichloroethene	130	7.679	7.679	0.000	96	133570	50.0	54.8	
63 Methylcyclohexane	83	7.922	7.922	0.000	94	243574	50.0	49.2	
64 1,2-Dichloropropane	63	7.952	7.952	0.000	86	149396	50.0	53.5	
67 Dibromomethane	93	8.038	8.038	0.000	95	80350	50.0	47.4	
65 1,4-Dioxane	88	8.038	8.038	0.000	88	28021	1000.0	1016.7	M
68 Dichlorobromomethane	83	8.232	8.232	0.000	98	150253	50.0	47.2	
71 cis-1,3-Dichloropropene	75	8.676	8.676	0.000	91	189582	50.0	54.2	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.822	0.000	96	241787	100.0	97.3	
73 Toluene	91	9.011	9.011	0.000	98	609957	50.0	48.9	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	99	160080	50.0	50.6	
75 Ethyl methacrylate	69	9.315	9.315	0.000	90	171561	50.0	51.0	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	121817	50.0	47.2	
77 Tetrachloroethene	164	9.528	9.528	0.000	94	113157	50.0	53.2	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	96	235922	50.0	49.5	
79 2-Hexanone	43	9.656	9.656	0.000	97	201464	100.0	123.5	
81 Chlorodibromomethane	129	9.820	9.820	0.000	91	90961	50.0	51.7	
82 Ethylene Dibromide	107	9.936	9.936	0.000	99	114217	50.0	50.1	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	206832	50.0	51.8	
84 Chlorobenzene	112	10.428	10.428	0.000	91	387686	50.0	50.6	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	97	191150	50.0	51.7	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	87	112164	50.0	53.4	
87 Ethylbenzene	106	10.526	10.526	0.000	99	220289	50.0	51.0	
88 m-Xylene & p-Xylene	106	10.659	10.659	0.000	99	276573	50.0	51.5	
89 o-Xylene	106	11.037	11.037	0.000	98	266861	50.0	49.7	
90 Styrene	104	11.061	11.061	0.000	94	427465	50.0	51.9	
91 Bromoform	173	11.244	11.244	0.000	94	51024	50.0	54.3	
92 2-Chlorobenzotrifluoride	180	11.304	11.304	0.000	95	203614	50.0	49.8	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	663339	50.0	51.6	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	149767	50.0	43.4	
95 Bromobenzene	156	11.724	11.724	0.000	98	160573	50.0	51.5	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.748	0.000	80	43076	50.0	43.6	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	52242	50.0	44.1	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	176565	50.0	49.2	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	149428	50.0	50.1	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	157645	50.0	50.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	564818	50.0	48.4	
103 4-Chlorotoluene	126	12.040	12.040	0.000	100	152632	50.0	48.5	
104 tert-Butylbenzene	119	12.326	12.326	0.000	92	443712	50.0	48.1	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	578280	50.0	48.4	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	165959	50.0	49.1	
108 sec-Butylbenzene	105	12.551	12.551	0.000	96	667116	50.0	48.4	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	95	286378	50.0	47.0	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	540061	50.0	46.7	
111 1,4-Dichlorobenzene	146	12.770	12.770	0.000	88	302644	50.0	48.6	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	165808	50.0	49.3	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.831	0.000	98	173529	50.0	46.2	
116 n-Butylbenzene	91	13.111	13.111	0.000	98	523261	50.0	45.4	
117 1,2-Dichlorobenzene	146	13.123	13.123	0.000	94	279606	50.0	45.5	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.914	0.000	72	21367	50.0	37.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	99	718745	150.0	134.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	522395	100.0	88.5	
122 1,2,4-Trichlorobenzene	180	14.741	14.741	0.000	93	213076	50.0	44.7	
123 Hexachlorobutadiene	225	14.894	14.894	0.000	96	89843	50.0	47.9	
124 Naphthalene	128	15.009	15.009	0.000	99	465186	50.0	48.4	
125 1,2,3-Trichlorobenzene	180	15.228	15.228	0.000	94	192672	50.0	43.2	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	129588	50.0	43.3	
127 2,3,6-Trichlorotoluene	159	16.110	16.110	0.000	93	125908	50.0	44.3	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	101.3	
S 130 1,2-Dichloroethene, Total	96				0		100.0	92.8	
S 132 1,3-Dichloropropene, Total	1				0		100.0	104.7	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00145	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00005	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928002.D

Injection Date: 28-Sep-2015 11:03:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

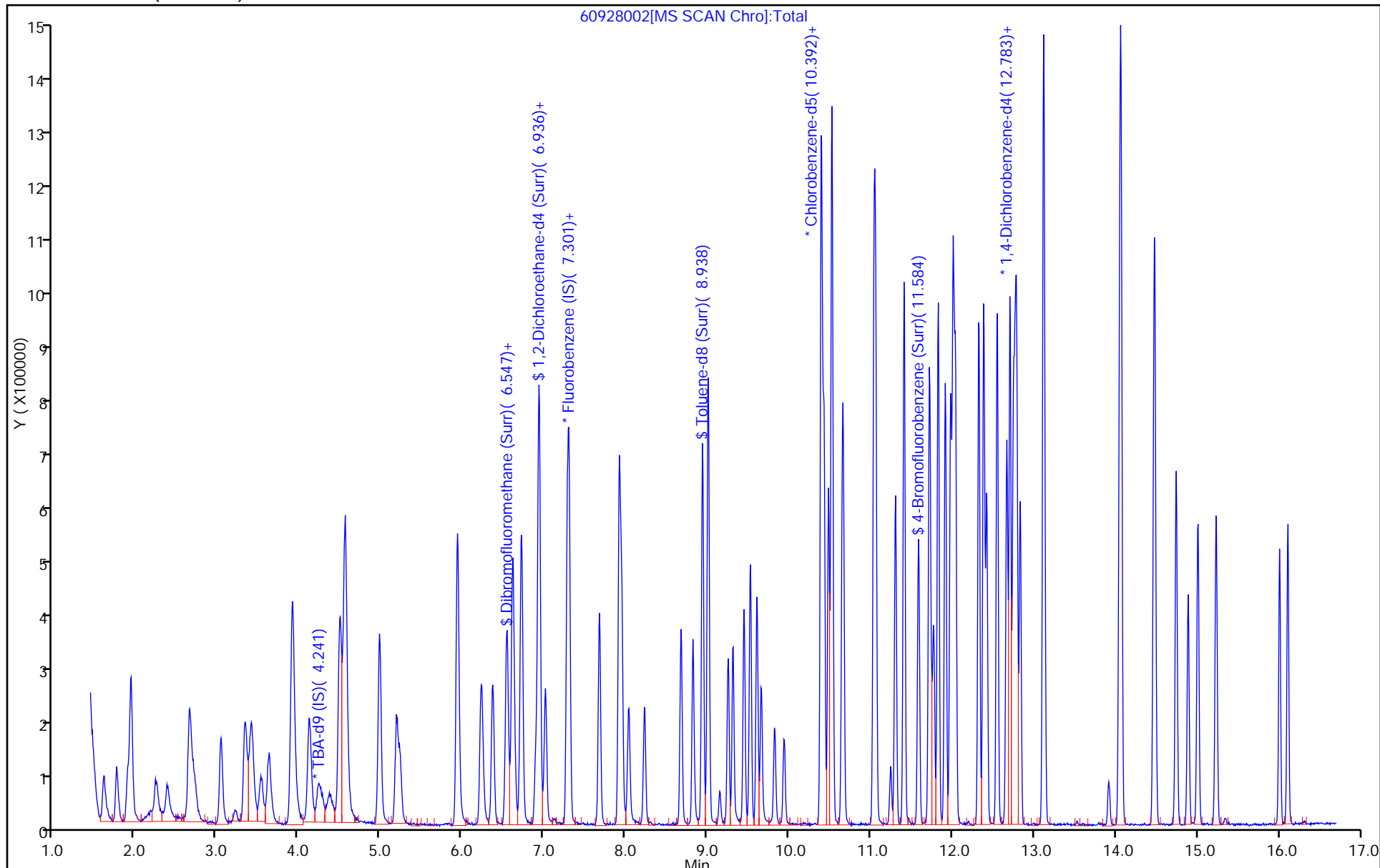
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





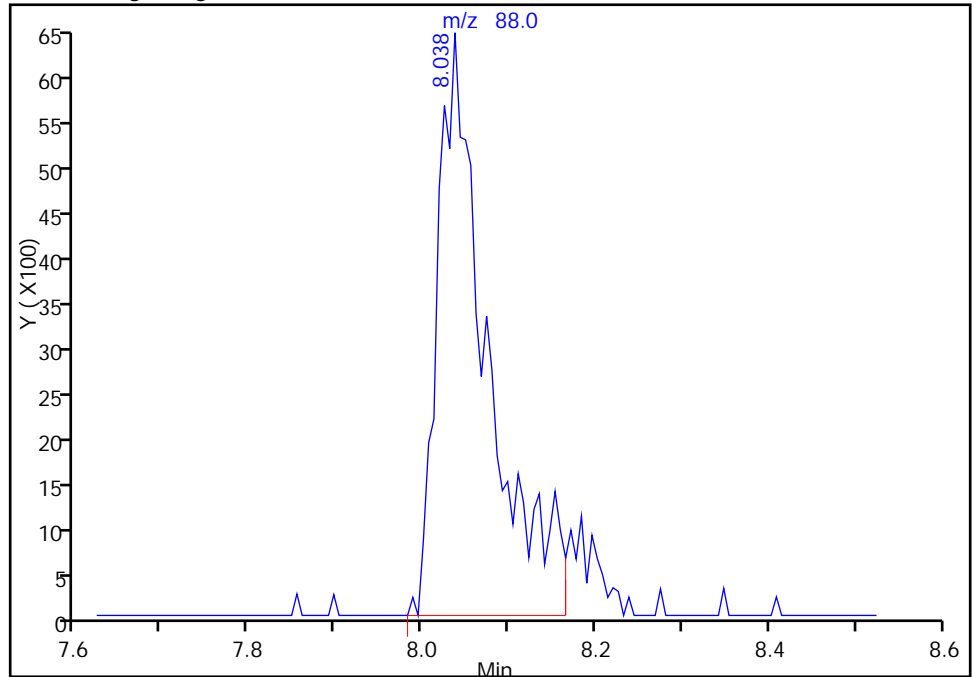
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928002.D  
Injection Date: 28-Sep-2015 11:03:30 Instrument ID: CHHP6  
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\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

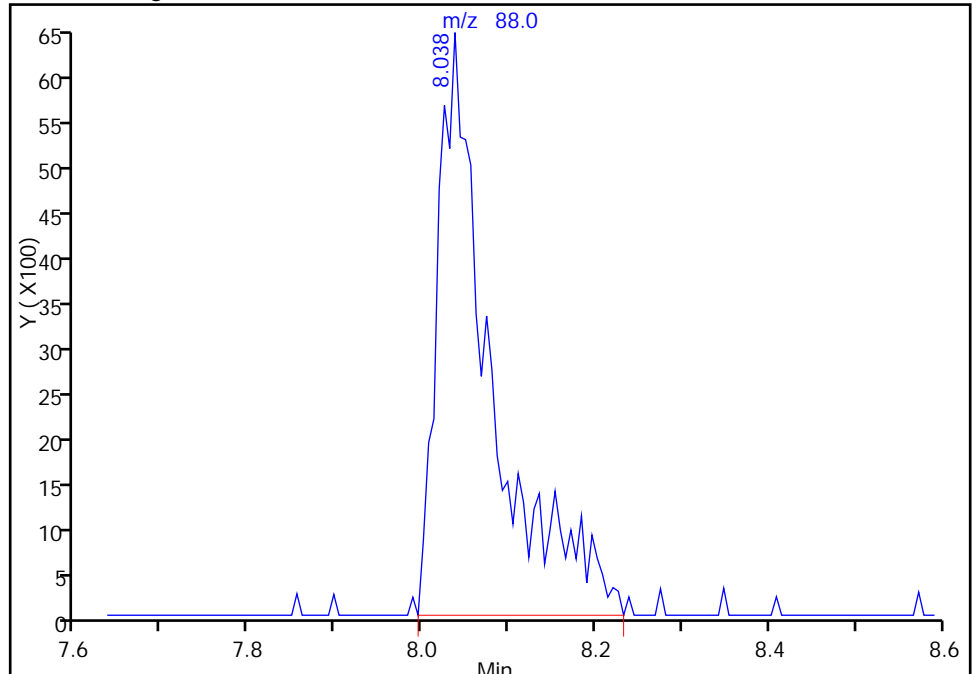
RT: 8.04  
Area: 25976  
Amount: 942.4574  
Amount Units: ng

Processing Integration Results



RT: 8.04  
Area: 28021  
Amount: 1016.6538  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 28-Sep-2015 11:24:43  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155230/2 Calibration Date: 09/29/2015 11:39  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60929002.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	0.3462	0.3032	0.1000	8.76	10.0	-12.4	20.0
Chloromethane	Ave	0.2984	0.2975	0.1000	9.97	10.0	-0.3	20.0
Vinyl chloride	Ave	0.3214	0.3077	0.1000	9.57	10.0	-4.3	20.0
1,3-Butadiene	Ave	0.3013	0.3315	0.0100	11.0	10.0	10.0	20.0
Bromomethane	Ave	0.1735	0.1385	0.0500	7.98	10.0	-20.2*	20.0
Chloroethane	Ave	0.2194	0.2024	0.0500	9.23	10.0	-7.7	20.0
Dichlorofluoromethane	Ave	0.5106	0.4443	0.0100	8.70	10.0	-13.0	20.0
Trichlorofluoromethane	Ave	0.4072	0.3516	0.1000	8.63	10.0	-13.7	20.0
Ethyl ether	Ave	0.2886	0.2892	0.0100	10.0	10.0	0.2	20.0
Acrolein	Ave	0.0315	0.0305	0.0100	29.0	30.0	-3.2	20.0
1,1-Dichloroethene	Ave	0.2517	0.2298	0.1000	9.13	10.0	-8.7	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2657	0.2610	0.1000	9.82	10.0	-1.8	20.0
Acetone	Ave	0.0885	0.1008	0.0500	22.8	20.0	13.9	20.0
Iodomethane	Ave	0.3379	0.3435	0.0100	10.2	10.0	1.7	20.0
Carbon disulfide	Ave	0.6522	0.5911	0.1000	9.06	10.0	-9.4	20.0
Allyl chloride	Ave	0.1419	0.1225	0.0100	8.63	10.0	-13.7	20.0
Methyl acetate	Ave	0.2074	0.2343	0.1000	56.5	50.0	13.0	20.0
Methylene Chloride	Lin2		0.3040	0.1000	8.58	10.0	-14.2	20.0
tert-Butyl alcohol	Ave	1.125	1.211	0.0100	108	100	7.6	20.0
Acrylonitrile	Ave	0.1046	0.1116	0.0100	107	100	6.7	20.0
trans-1,2-Dichloroethene	Ave	0.2905	0.2609	0.1000	8.98	10.0	-10.2	20.0
Methyl tert-butyl ether	Ave	0.8703	0.7316	0.1000	8.41	10.0	-15.9	20.0
Hexane	Ave	0.3936	0.4389	0.0100	11.2	10.0	11.5	20.0
1,1-Dichloroethane	Ave	0.5200	0.5080	0.2000	9.77	10.0	-2.3	20.0
Vinyl acetate	Ave	0.4197	0.5185	0.0100	12.4	10.0	23.5*	20.0
2,2-Dichloropropane	Ave	0.2629	0.2191	0.0100	8.34	10.0	-16.6	20.0
cis-1,2-Dichloroethene	Ave	0.3158	0.2741	0.1000	8.68	10.0	-13.2	20.0
2-Butanone (MEK)	Ave	0.1207	0.1347	0.0500	22.3	20.0	11.6	20.0
Bromochloromethane	Ave	0.1269	0.1328	0.0100	10.5	10.0	4.6	20.0
Tetrahydrofuran	Ave	0.0813	0.0867	0.0100	21.3	20.0	6.7	20.0
Chloroform	Ave	0.5161	0.4763	0.2000	9.23	10.0	-7.7	20.0
1,1,1-Trichloroethane	Ave	0.3814	0.3587	0.1000	9.40	10.0	-6.0	20.0
Cyclohexane	Ave	0.4886	0.5073	0.1000	10.4	10.0	3.8	20.0
Carbon tetrachloride	Ave	0.2694	0.2783	0.1000	10.3	10.0	3.3	20.0
1,1-Dichloropropene	Ave	0.4102	0.3955	0.0100	9.64	10.0	-3.6	20.0
Isobutyl alcohol	Ave	0.0072	0.0077*	0.0100	266	250	6.3	20.0
Benzene	Ave	1.165	1.159	0.5000	9.95	10.0	-0.5	20.0
1,2-Dichloroethane	Ave	0.4694	0.4815	0.1000	10.3	10.0	2.6	20.0
n-Heptane	Ave	0.3168	0.4225	0.0100	13.3	10.0	33.4*	20.0
Trichloroethene	Ave	0.2430	0.2606	0.2000	10.7	10.0	7.2	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155230/2 Calibration Date: 09/29/2015 11:39  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60929002.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
Methylcyclohexane	Ave	0.4932	0.4749	0.1000	9.63	10.0	-3.7	20.0
1,2-Dichloropropane	Ave	0.2784	0.3028	0.1000	10.9	10.0	8.8	20.0
1,4-Dioxane	Ave	0.0027	0.0029*	0.0100	208	200	4.1	20.0
Dibromomethane	Ave	0.1690	0.1665	0.0100	9.85	10.0	-1.5	20.0
Bromodichloromethane	Ave	0.3176	0.2999	0.2000	9.44	10.0	-5.6	20.0
cis-1,3-Dichloropropene	Ave	0.3489	0.3386	0.2000	9.71	10.0	-2.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.028	0.9644	0.1000	18.8	20.0	-6.2	20.0
Toluene	Ave	5.159	5.104	0.4000	9.89	10.0	-1.1	20.0
trans-1,3-Dichloropropene	Ave	1.310	1.258	0.1000	9.61	10.0	-3.9	20.0
Ethyl methacrylate	Ave	1.391	1.339	0.0100	9.62	10.0	-3.8	20.0
1,1,2-Trichloroethane	Ave	1.067	1.026	0.1000	9.61	10.0	-3.9	20.0
Tetrachloroethene	Ave	0.8800	0.9236	0.2000	10.5	10.0	5.0	20.0
1,3-Dichloropropane	Ave	1.971	2.009	0.0100	10.2	10.0	1.9	20.0
2-Hexanone	Ave	0.6750	0.7838	0.1000	23.2	20.0	16.1	20.0
Dibromochloromethane	Ave	0.7283	0.7382	0.1000	10.1	10.0	1.4	20.0
1,2-Dibromoethane (EDB)	Ave	0.9442	0.9485	0.1000	10.0	10.0	0.5	20.0
3-Chlorobenzotrifluoride	Ave	1.652	1.721	0.0100	10.4	10.0	4.2	20.0
Chlorobenzene	Ave	3.171	3.323	0.5000	10.5	10.0	4.8	20.0
4-Chlorobenzotrifluoride	Ave	1.531	1.628	0.0100	10.6	10.0	6.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8691	0.9086	0.0100	10.5	10.0	4.5	20.0
Ethylbenzene	Ave	1.789	1.909	0.1000	10.7	10.0	6.7	20.0
m-Xylene & p-Xylene	Ave	2.220	2.293	0.1000	10.3	10.0	3.3	20.0
o-Xylene	Ave	2.221	2.216	0.3000	9.98	10.0	-0.2	20.0
Styrene	Ave	3.411	3.634	0.3000	10.7	10.0	6.6	20.0
Bromoform	Ave	0.3887	0.4002	0.1000	10.3	10.0	2.9	20.0
2-Chlorobenzotrifluoride	Ave	1.692	1.689	0.0100	9.98	10.0	-0.2	20.0
Isopropylbenzene	Ave	5.314	5.533	0.1000	10.4	10.0	4.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.428	1.303	0.3000	9.13	10.0	-8.7	20.0
Bromobenzene	Ave	0.8038	0.7954	0.0100	9.90	10.0	-1.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2549	0.2156	0.0100	8.46	10.0	-15.4	20.0
1,2,3-Trichloropropane	Ave	0.3057	0.2709	0.0100	8.86	10.0	-11.4	20.0
N-Propylbenzene	Ave	0.9257	0.8744	0.0100	9.45	10.0	-5.5	20.0
2-Chlorotoluene	Ave	0.7686	0.7619	0.0100	9.91	10.0	-0.9	20.0
3-Chlorotoluene	Ave	0.8072	0.7705	0.0100	9.55	10.0	-4.5	20.0
1,3,5-Trimethylbenzene	Ave	3.010	2.847	0.0100	9.46	10.0	-5.4	20.0
4-Chlorotoluene	Ave	0.8119	0.8634	0.0100	10.6	10.0	6.3	20.0
tert-Butylbenzene	Ave	2.378	2.150	0.0100	9.04	10.0	-9.6	20.0
1,2,4-Trimethylbenzene	Ave	3.078	2.908	0.0100	9.45	10.0	-5.5	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8719	0.8389	0.0100	9.62	10.0	-3.8	20.0
sec-Butylbenzene	Ave	3.550	3.361	0.0100	9.47	10.0	-5.3	20.0
1,3-Dichlorobenzene	Ave	1.570	1.533	0.6000	9.77	10.0	-2.3	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155230/2 Calibration Date: 09/29/2015 11:39  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60929002.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	2.979	2.707	0.0100	9.09	10.0	-9.1	20.0
1,4-Dichlorobenzene	Ave	1.605	1.568	0.5000	9.77	10.0	-2.3	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8674	0.7620	0.0100	8.78	10.0	-12.2	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9687	0.9621	0.0100	9.93	10.0	-0.7	20.0
n-Butylbenzene	Ave	2.974	2.542	0.0100	8.55	10.0	-14.5	20.0
1,2-Dichlorobenzene	Ave	1.585	1.487	0.4000	9.38	10.0	-6.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1454	0.1031	0.0500	7.09	10.0	-29.1*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.380	1.218	0.0100	26.5	30.0	-11.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.522	1.327	0.0100	17.4	20.0	-12.8	20.0
1,2,4-Trichlorobenzene	Ave	1.229	1.067	0.2000	8.68	10.0	-13.2	20.0
Hexachlorobutadiene	Ave	0.4839	0.4761	0.0100	9.84	10.0	-1.6	20.0
Naphthalene	Ave	2.479	2.132	0.0100	8.60	10.0	-14.0	20.0
1,2,3-Trichlorobenzene	Ave	1.150	1.001	0.0100	8.71	10.0	-12.9	20.0
2,4,5-Trichlorotoluene	Ave	0.7719	0.6175	0.0100	8.00	10.0	-20.0	20.0
2,3,6-Trichlorotoluene	Ave	0.7323	0.6155	0.0100	8.41	10.0	-15.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2303	0.2229		9.68	10.0	-3.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3715	0.3809		10.3	10.0	2.5	20.0
Toluene-d8 (Surr)	Ave	3.944	4.049		10.3	10.0	2.7	20.0
4-Bromofluorobenzene (Surr)	Ave	1.751	1.737		9.92	10.0	-0.8	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 29-Sep-2015 11:39:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008741-002  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 29-Sep-2015 13:09:19 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: fergusond

Date: 29-Sep-2015 12:24:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.242	0.000	92	151334	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.283	0.000	98	479327	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	109995	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	95	188289	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	93	106855	50.0	48.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	72	182590	50.0	51.3	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	445339	50.0	51.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	84	191113	50.0	49.6	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	99	145348	50.0	43.8	
12 Chloromethane	50	1.766	1.766	0.000	99	142616	50.0	49.9	
13 Vinyl chloride	62	1.900	1.900	0.000	97	147475	50.0	47.9	
14 Butadiene	39	1.936	1.936	0.000	96	158900	50.0	55.0	
15 Bromomethane	94	2.246	2.246	0.000	90	66377	50.0	39.9	
16 Chloroethane	64	2.380	2.380	0.000	100	97034	50.0	46.1	
17 Dichlorofluoromethane	67	2.654	2.654	0.000	97	212984	50.0	43.5	
18 Trichlorofluoromethane	101	2.690	2.690	0.000	90	168530	50.0	43.2	
20 Ethyl ether	59	3.043	3.043	0.000	95	138627	50.0	50.1	
21 Acrolein	56	3.214	3.214	0.000	95	43802	150.0	145.1	
22 1,1-Dichloroethene	96	3.335	3.335	0.000	95	110141	50.0	45.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.408	3.408	0.000	93	125117	50.0	49.1	
24 Acetone	43	3.420	3.420	0.000	99	96584	100.0	113.9	
25 Iodomethane	142	3.530	3.530	0.000	98	164659	50.0	50.8	
26 Carbon disulfide	76	3.627	3.627	0.000	100	283325	50.0	45.3	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	66	58715	50.0	43.2	
30 Methyl acetate	43	3.919	3.919	0.000	97	561627	250.0	282.4	
31 Methylene Chloride	84	4.120	4.120	0.000	98	145701	50.0	42.9	
32 2-Methyl-2-propanol	59	4.376	4.376	0.000	97	91607	500.0	537.9	
33 Acrylonitrile	53	4.503	4.503	0.000	100	534975	500.0	533.7	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	92	125044	50.0	44.9	
35 Methyl tert-butyl ether	73	4.570	4.570	0.000	97	350657	50.0	42.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	95	210378	50.0	55.8	
37 1,1-Dichloroethane	63	5.191	5.191	0.000	96	243496	50.0	48.8	
38 Vinyl acetate	43	5.239	5.239	0.000	98	248520	50.0	61.8	
43 cis-1,2-Dichloroethene	96	5.939	5.939	0.000	87	131373	50.0	43.4	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	59	105040	50.0	41.7	
44 2-Butanone (MEK)	43	5.945	5.945	0.000	66	129164	100.0	111.6	
48 Chlorobromomethane	128	6.231	6.231	0.000	95	63646	50.0	52.3	
49 Tetrahydrofuran	42	6.249	6.249	0.000	93	83136	100.0	106.7	
50 Chloroform	83	6.371	6.371	0.000	96	228303	50.0	46.1	
51 1,1,1-Trichloroethane	97	6.541	6.541	0.000	96	171909	50.0	47.0	
52 Cyclohexane	56	6.614	6.614	0.000	95	243170	50.0	51.9	
53 Carbon tetrachloride	117	6.712	6.712	0.000	96	133371	50.0	51.6	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	92	189553	50.0	48.2	
55 Isobutyl alcohol	41	6.894	6.894	0.000	92	92139	1250.0	1328.7	
56 Benzene	78	6.937	6.937	0.000	99	555592	50.0	49.7	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	98	230788	50.0	51.3	
59 n-Heptane	43	7.308	7.308	0.000	94	202530	50.0	66.7	
61 Trichloroethene	130	7.679	7.679	0.000	96	124915	50.0	53.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	96	227630	50.0	48.1	
64 1,2-Dichloropropane	63	7.953	7.953	0.000	93	145121	50.0	54.4	
67 Dibromomethane	93	8.032	8.032	0.000	95	79813	50.0	49.3	
65 1,4-Dioxane	88	8.032	8.032	0.000	40	27430	1000.0	1041.3	
68 Dichlorobromomethane	83	8.226	8.226	0.000	97	143737	50.0	47.2	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	90	162311	50.0	48.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.823	0.000	97	212167	100.0	93.8	
73 Toluene	91	9.011	9.011	0.000	97	561378	50.0	49.5	
74 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	100	138396	50.0	48.0	
75 Ethyl methacrylate	69	9.315	9.315	0.000	92	147255	50.0	48.1	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	112824	50.0	48.1	
77 Tetrachloroethene	164	9.522	9.522	0.000	94	101593	50.0	52.5	
78 1,3-Dichloropropane	76	9.607	9.607	0.000	96	220983	50.0	51.0	
79 2-Hexanone	43	9.662	9.662	0.000	99	172417	100.0	116.1	
81 Chlorodibromomethane	129	9.826	9.826	0.000	92	81197	50.0	50.7	
82 Ethylene Dibromide	107	9.942	9.942	0.000	98	104325	50.0	50.2	
83 3-Chlorobenzotrifluoride	180	10.398	10.398	0.000	91	189271	50.0	52.1	
84 Chlorobenzene	112	10.429	10.429	0.000	92	365560	50.0	52.4	
85 4-Chlorobenzotrifluoride	180	10.483	10.483	0.000	96	179089	50.0	53.2	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	87	99941	50.0	52.3	
87 Ethylbenzene	106	10.526	10.526	0.000	99	209981	50.0	53.4	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	99	252184	50.0	51.6	
89 o-Xylene	106	11.037	11.037	0.000	97	243785	50.0	49.9	
90 Styrene	104	11.061	11.061	0.000	95	399776	50.0	53.3	
91 Bromoform	173	11.244	11.244	0.000	95	44016	50.0	51.5	
92 2-Chlorobenzotrifluoride	180	11.305	11.305	0.000	96	185766	50.0	49.9	
93 Isopropylbenzene	105	11.408	11.408	0.000	97	608606	50.0	52.1	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	97	143289	50.0	45.6	
95 Bromobenzene	156	11.724	11.724	0.000	98	149768	50.0	49.5	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.755	0.000	80	40600	50.0	42.3	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	85	51005	50.0	44.3	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	164638	50.0	47.2	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	143464	50.0	49.6	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	145082	50.0	47.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	93	536131	50.0	47.3	
103 4-Chlorotoluene	126	12.041	12.041	0.000	99	162566	50.0	53.2	
104 tert-Butylbenzene	119	12.327	12.327	0.000	91	404806	50.0	45.2	
106 1,2,4-Trimethylbenzene	105	12.381	12.381	0.000	98	547575	50.0	47.2	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	157953	50.0	48.1	
108 sec-Butylbenzene	105	12.546	12.546	0.000	96	632811	50.0	47.3	
109 1,3-Dichlorobenzene	146	12.667	12.667	0.000	96	288695	50.0	48.8	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	509727	50.0	45.4	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	91	295236	50.0	48.8	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	143476	50.0	43.9	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	181151	50.0	49.7	
116 n-Butylbenzene	91	13.111	13.111	0.000	99	478661	50.0	42.7	
117 1,2-Dichlorobenzene	146	13.130	13.130	0.000	94	279990	50.0	46.9	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.914	0.000	72	19404	50.0	35.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.060	0.000	99	688279	150.0	132.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	499879	100.0	87.2	
122 1,2,4-Trichlorobenzene	180	14.742	14.742	0.000	93	200846	50.0	43.4	
123 Hexachlorobutadiene	225	14.888	14.888	0.000	96	89640	50.0	49.2	
124 Naphthalene	128	15.009	15.009	0.000	98	401364	50.0	43.0	
125 1,2,3-Trichlorobenzene	180	15.235	15.235	0.000	94	188467	50.0	43.5	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	116267	50.0	40.0	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	95	115893	50.0	42.0	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	101.5	
S 130 1,2-Dichloroethene, Total	96				0		100.0	88.3	
S 132 1,3-Dichloropropene, Total	1				0		100.0	96.6	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

VOA8260VOAPRI_00145	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929002.D

Injection Date: 29-Sep-2015 11:39:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

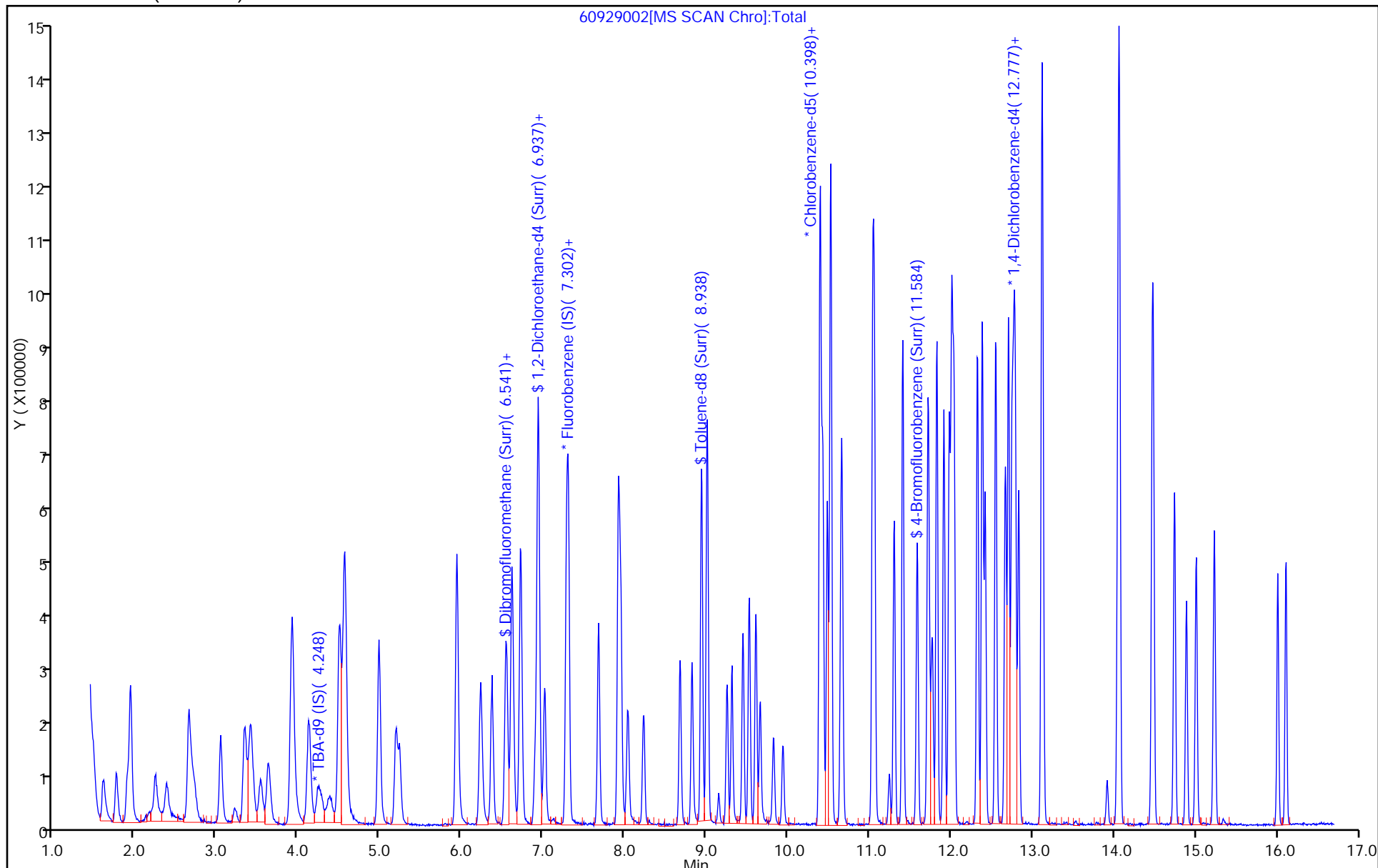
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155405/2 Calibration Date: 09/30/2015 11:30  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60930002.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	0.3462	0.3171	0.1000	9.16	10.0	-8.4	20.0
Chloromethane	Ave	0.2984	0.3165	0.1000	10.6	10.0	6.1	20.0
Vinyl chloride	Ave	0.3214	0.3142	0.1000	9.78	10.0	-2.2	20.0
1,3-Butadiene	Ave	0.3013	0.3547	0.0100	11.8	10.0	17.7	20.0
Bromomethane	Ave	0.1735	0.1399	0.0500	8.06	10.0	-19.4	20.0
Chloroethane	Ave	0.2194	0.2117	0.0500	9.65	10.0	-3.5	20.0
Dichlorofluoromethane	Ave	0.5106	0.4609	0.0100	9.03	10.0	-9.7	20.0
Trichlorofluoromethane	Ave	0.4072	0.3685	0.1000	9.05	10.0	-9.5	20.0
Ethyl ether	Ave	0.2886	0.2956	0.0100	10.2	10.0	2.4	20.0
Acrolein	Ave	0.0315	0.0304	0.0100	28.9	30.0	-3.5	20.0
1,1-Dichloroethene	Ave	0.2517	0.2304	0.1000	9.15	10.0	-8.5	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2657	0.2513	0.1000	9.46	10.0	-5.4	20.0
Acetone	Ave	0.0885	0.0836	0.0500	18.9	20.0	-5.5	20.0
Iodomethane	Ave	0.3379	0.3239	0.0100	9.59	10.0	-4.1	20.0
Carbon disulfide	Ave	0.6522	0.5987	0.1000	9.18	10.0	-8.2	20.0
Allyl chloride	Ave	0.1419	0.1225	0.0100	8.63	10.0	-13.7	20.0
Methyl acetate	Ave	0.2074	0.2214	0.1000	53.4	50.0	6.7	20.0
Methylene Chloride	Lin2		0.2950	0.1000	8.29	10.0	-17.1	20.0
tert-Butyl alcohol	Ave	1.125	1.125	0.0100	99.9	100	-0.0	20.0
Acrylonitrile	Ave	0.1046	0.1114	0.0100	107	100	6.6	20.0
trans-1,2-Dichloroethene	Ave	0.2905	0.2668	0.1000	9.18	10.0	-8.2	20.0
Methyl tert-butyl ether	Ave	0.8703	0.7229	0.1000	8.31	10.0	-16.9	20.0
Hexane	Ave	0.3936	0.4314	0.0100	11.0	10.0	9.6	20.0
1,1-Dichloroethane	Ave	0.5200	0.5189	0.2000	9.98	10.0	-0.2	20.0
Vinyl acetate	Ave	0.4197	0.5294	0.0100	12.6	10.0	26.1*	20.0
cis-1,2-Dichloroethene	Ave	0.3158	0.2747	0.1000	8.70	10.0	-13.0	20.0
2,2-Dichloropropane	Ave	0.2629	0.2396	0.0100	9.11	10.0	-8.9	20.0
2-Butanone (MEK)	Ave	0.1207	0.1258	0.0500	20.8	20.0	4.2	20.0
Bromochloromethane	Ave	0.1269	0.1203	0.0100	9.48	10.0	-5.2	20.0
Tetrahydrofuran	Ave	0.0813	0.0792	0.0100	19.5	20.0	-2.6	20.0
Chloroform	Ave	0.5161	0.4746	0.2000	9.20	10.0	-8.0	20.0
1,1,1-Trichloroethane	Ave	0.3814	0.3582	0.1000	9.39	10.0	-6.1	20.0
Cyclohexane	Ave	0.4886	0.5224	0.1000	10.7	10.0	6.9	20.0
Carbon tetrachloride	Ave	0.2694	0.2773	0.1000	10.3	10.0	3.0	20.0
1,1-Dichloropropene	Ave	0.4102	0.4070	0.0100	9.92	10.0	-0.8	20.0
Isobutyl alcohol	Ave	0.0072	0.0078*	0.0100	268	250	7.1	20.0
Benzene	Ave	1.165	1.189	0.5000	10.2	10.0	2.0	20.0
1,2-Dichloroethane	Ave	0.4694	0.4468	0.1000	9.52	10.0	-4.8	20.0
n-Heptane	Ave	0.3168	0.4261	0.0100	13.4	10.0	34.5*	20.0
Trichloroethene	Ave	0.2430	0.2558	0.2000	10.5	10.0	5.3	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155405/2 Calibration Date: 09/30/2015 11:30  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60930002.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
Methylcyclohexane	Ave	0.4932	0.4722	0.1000	9.58	10.0	-4.2	20.0
1,2-Dichloropropane	Ave	0.2784	0.2937	0.1000	10.6	10.0	5.5	20.0
1,4-Dioxane	Ave	0.0027	0.0025*	0.0100	180	200	-9.8	20.0
Dibromomethane	Ave	0.1690	0.1564	0.0100	9.25	10.0	-7.5	20.0
Bromodichloromethane	Ave	0.3176	0.2950	0.2000	9.29	10.0	-7.1	20.0
cis-1,3-Dichloropropene	Ave	0.3489	0.3347	0.2000	9.59	10.0	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.028	0.9013	0.1000	17.5	20.0	-12.3	20.0
Toluene	Ave	5.159	5.222	0.4000	10.1	10.0	1.2	20.0
trans-1,3-Dichloropropene	Ave	1.310	1.258	0.1000	9.60	10.0	-4.0	20.0
Ethyl methacrylate	Ave	1.391	1.291	0.0100	9.28	10.0	-7.2	20.0
1,1,2-Trichloroethane	Ave	1.067	1.055	0.1000	9.88	10.0	-1.2	20.0
Tetrachloroethene	Ave	0.8800	0.9744	0.2000	11.1	10.0	10.7	20.0
1,3-Dichloropropane	Ave	1.971	2.044	0.0100	10.4	10.0	3.7	20.0
2-Hexanone	Ave	0.6750	0.7521	0.1000	22.3	20.0	11.4	20.0
Dibromochloromethane	Ave	0.7283	0.7525	0.1000	10.3	10.0	3.3	20.0
1,2-Dibromoethane (EDB)	Ave	0.9442	0.9091	0.1000	9.63	10.0	-3.7	20.0
3-Chlorobenzotrifluoride	Ave	1.652	1.691	0.0100	10.2	10.0	2.4	20.0
Chlorobenzene	Ave	3.171	3.237	0.5000	10.2	10.0	2.1	20.0
4-Chlorobenzotrifluoride	Ave	1.531	1.629	0.0100	10.6	10.0	6.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.8691	0.9045	0.0100	10.4	10.0	4.1	20.0
Ethylbenzene	Ave	1.789	1.819	0.1000	10.2	10.0	1.7	20.0
m-Xylene & p-Xylene	Ave	2.220	2.261	0.1000	10.2	10.0	1.9	20.0
o-Xylene	Ave	2.221	2.230	0.3000	10.0	10.0	0.4	20.0
Styrene	Ave	3.411	3.600	0.3000	10.6	10.0	5.5	20.0
Bromoform	Ave	0.3887	0.3841	0.1000	9.88	10.0	-1.2	20.0
2-Chlorobenzotrifluoride	Ave	1.692	1.706	0.0100	10.1	10.0	0.8	20.0
Isopropylbenzene	Ave	5.314	5.396	0.1000	10.2	10.0	1.5	20.0
1,1,2,2-Tetrachloroethane	Ave	1.428	1.257	0.3000	8.80	10.0	-12.0	20.0
Bromobenzene	Ave	0.8038	0.7296	0.0100	9.08	10.0	-9.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2549	0.2152	0.0100	8.44	10.0	-15.6	20.0
1,2,3-Trichloropropane	Ave	0.3057	0.2543	0.0100	8.32	10.0	-16.8	20.0
N-Propylbenzene	Ave	0.9257	0.8316	0.0100	8.98	10.0	-10.2	20.0
2-Chlorotoluene	Ave	0.7686	0.6942	0.0100	9.03	10.0	-9.7	20.0
3-Chlorotoluene	Ave	0.8072	0.7351	0.0100	9.11	10.0	-8.9	20.0
1,3,5-Trimethylbenzene	Ave	3.010	2.723	0.0100	9.05	10.0	-9.5	20.0
4-Chlorotoluene	Ave	0.8119	0.7590	0.0100	9.35	10.0	-6.5	20.0
tert-Butylbenzene	Ave	2.378	2.035	0.0100	8.56	10.0	-14.4	20.0
1,2,4-Trimethylbenzene	Ave	3.078	2.750	0.0100	8.94	10.0	-10.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8719	0.8156	0.0100	9.35	10.0	-6.5	20.0
sec-Butylbenzene	Ave	3.550	3.262	0.0100	9.19	10.0	-8.1	20.0
1,3-Dichlorobenzene	Ave	1.570	1.412	0.6000	9.00	10.0	-10.0	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: CCVIS 180-155405/2 Calibration Date: 09/30/2015 11:30  
 Instrument ID: CHHP6 Calib Start Date: 07/31/2015 14:00  
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/31/2015 18:02  
 Lab File ID: 60930002.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	2.979	2.605	0.0100	8.74	10.0	-12.6	20.0
1,4-Dichlorobenzene	Ave	1.605	1.485	0.5000	9.26	10.0	-7.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8674	0.7935	0.0100	9.15	10.0	-8.5	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.9687	0.8986	0.0100	9.28	10.0	-7.2	20.0
n-Butylbenzene	Ave	2.974	2.536	0.0100	8.53	10.0	-14.7	20.0
1,2-Dichlorobenzene	Ave	1.585	1.399	0.4000	8.83	10.0	-11.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1454	0.0988	0.0500	6.80	10.0	-32.0*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.380	1.167	0.0100	25.4	30.0	-15.5	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.522	1.247	0.0100	16.4	20.0	-18.1	20.0
1,2,4-Trichlorobenzene	Ave	1.229	1.039	0.2000	8.46	10.0	-15.4	20.0
Hexachlorobutadiene	Ave	0.4839	0.4759	0.0100	9.83	10.0	-1.7	20.0
Naphthalene	Ave	2.479	2.000	0.0100	8.07	10.0	-19.3	20.0
1,2,3-Trichlorobenzene	Ave	1.150	0.9185	0.0100	7.99	10.0	-20.1*	20.0
2,4,5-Trichlorotoluene	Ave	0.7719	0.5580	0.0100	7.23	10.0	-27.7*	20.0
2,3,6-Trichlorotoluene	Ave	0.7323	0.5830	0.0100	7.96	10.0	-20.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2303	0.2189		9.50	10.0	-5.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3715	0.3396		9.14	10.0	-8.6	20.0
Toluene-d8 (Surr)	Ave	3.944	4.067		10.3	10.0	3.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.751	1.641		9.37	10.0	-6.3	20.0

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930002.D  
 Lims ID: CCVIS  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 30-Sep-2015 11:30:30 ALS Bottle#: 2 Worklist Smp#: 2  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: CCVIS  
 Misc. Info.: 180-0008760-002  
 Operator ID: 001562 Instrument ID: CHHP6  
 Sublist: chrom-MSVOA\_LL\_CHHP6\*sub5  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 12:58:10 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond

Date: 30-Sep-2015 11:58:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.233	4.233	0.000	96	155217	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.287	0.000	98	463560	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.396	10.396	0.000	91	105595	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.750	12.750	0.000	94	187843	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.557	6.557	0.000	93	101461	50.0	47.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.928	6.928	0.000	69	157422	50.0	45.7	
\$ 7 Toluene-d8 (Surr)	98	8.942	8.942	0.000	94	429436	50.0	51.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.588	11.588	0.000	84	173278	50.0	46.9	
11 Dichlorodifluoromethane	85	1.605	1.605	0.000	99	147009	50.0	45.8	
12 Chloromethane	50	1.763	1.763	0.000	99	146716	50.0	53.0	
13 Vinyl chloride	62	1.897	1.897	0.000	99	145649	50.0	48.9	
14 Butadiene	39	1.934	1.934	0.000	94	164442	50.0	58.9	
15 Bromomethane	94	2.238	2.238	0.000	92	64861	50.0	40.3	
16 Chloroethane	64	2.378	2.378	0.000	99	98136	50.0	48.2	
17 Dichlorofluoromethane	67	2.651	2.651	0.000	97	213644	50.0	45.1	
18 Trichlorofluoromethane	101	2.694	2.694	0.000	94	170818	50.0	45.2	
20 Ethyl ether	59	3.041	3.041	0.000	94	137027	50.0	51.2	
21 Acrolein	56	3.217	3.217	0.000	96	42236	150.0	144.7	
22 1,1-Dichloroethene	96	3.333	3.333	0.000	93	106806	50.0	45.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.406	3.406	0.000	93	116474	50.0	47.3	
24 Acetone	43	3.430	3.430	0.000	96	77462	100.0	94.5	
25 Iodomethane	142	3.533	3.533	0.000	100	150151	50.0	47.9	
26 Carbon disulfide	76	3.631	3.631	0.000	100	277532	50.0	45.9	
29 3-Chloro-1-propene	76	3.911	3.911	0.000	70	56777	50.0	43.2	
30 Methyl acetate	43	3.923	3.923	0.000	98	513091	250.0	266.8	
31 Methylene Chloride	84	4.124	4.124	0.000	98	136753	50.0	41.4	
32 2-Methyl-2-propanol	59	4.367	4.367	0.000	91	87272	500.0	499.6	
33 Acrylonitrile	53	4.501	4.501	0.000	98	516576	500.0	532.9	
34 trans-1,2-Dichloroethene	96	4.562	4.562	0.000	94	123665	50.0	45.9	
35 Methyl tert-butyl ether	73	4.568	4.568	0.000	97	335123	50.0	41.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	96	199991	50.0	54.8	
37 1,1-Dichloroethane	63	5.194	5.194	0.000	98	240558	50.0	49.9	
38 Vinyl acetate	43	5.237	5.237	0.000	97	245411	50.0	63.1	
43 cis-1,2-Dichloroethene	96	5.936	5.936	0.000	88	127353	50.0	43.5	
44 2-Butanone (MEK)	43	5.943	5.943	0.000	60	116618	100.0	104.2	
42 2,2-Dichloropropane	77	5.943	5.943	0.000	60	111045	50.0	45.6	
48 Chlorobromomethane	128	6.228	6.228	0.000	93	55765	50.0	47.4	
49 Tetrahydrofuran	42	6.247	6.247	0.000	87	73427	100.0	97.4	
50 Chloroform	83	6.374	6.374	0.000	95	220004	50.0	46.0	
51 1,1,1-Trichloroethane	97	6.539	6.539	0.000	96	166047	50.0	47.0	
52 Cyclohexane	56	6.618	6.618	0.000	96	242171	50.0	53.5	
53 Carbon tetrachloride	117	6.709	6.709	0.000	94	128558	50.0	51.5	
54 1,1-Dichloropropene	75	6.727	6.727	0.000	92	188647	50.0	49.6	
55 Isobutyl alcohol	41	6.898	6.898	0.000	92	89768	1250.0	1338.5	
56 Benzene	78	6.940	6.940	0.000	97	551133	50.0	51.0	
57 1,2-Dichloroethane	62	7.013	7.013	0.000	98	207138	50.0	47.6	
59 n-Heptane	43	7.305	7.305	0.000	91	197499	50.0	67.2	
61 Trichloroethene	130	7.676	7.676	0.000	97	118584	50.0	52.6	
63 Methylcyclohexane	83	7.920	7.920	0.000	94	218912	50.0	47.9	
64 1,2-Dichloropropane	63	7.950	7.950	0.000	95	136165	50.0	52.8	
65 1,4-Dioxane	88	8.029	8.029	0.000	37	22987	1000.0	902.3	M
67 Dibromomethane	93	8.035	8.035	0.000	95	72483	50.0	46.3	
68 Dichlorobromomethane	83	8.230	8.230	0.000	97	136757	50.0	46.4	
71 cis-1,3-Dichloropropene	75	8.674	8.674	0.000	91	155141	50.0	48.0	
72 4-Methyl-2-pentanone (MIBK)	43	8.826	8.826	0.000	97	190347	100.0	87.7	
73 Toluene	91	9.009	9.009	0.000	98	551443	50.0	50.6	
74 trans-1,3-Dichloropropene	75	9.252	9.252	0.000	99	132811	50.0	48.0	
75 Ethyl methacrylate	69	9.313	9.313	0.000	91	136273	50.0	46.4	
76 1,1,2-Trichloroethane	97	9.453	9.453	0.000	93	111361	50.0	49.4	
77 Tetrachloroethene	164	9.526	9.526	0.000	96	102892	50.0	55.4	
78 1,3-Dichloropropane	76	9.611	9.611	0.000	95	215865	50.0	51.8	
79 2-Hexanone	43	9.660	9.660	0.000	98	158834	100.0	111.4	
81 Chlorodibromomethane	129	9.824	9.824	0.000	91	79457	50.0	51.7	
82 Ethylene Dibromide	107	9.939	9.939	0.000	100	95998	50.0	48.1	
83 3-Chlorobenzotrifluoride	180	10.396	10.396	0.000	92	178607	50.0	51.2	
84 Chlorobenzene	112	10.426	10.426	0.000	92	341816	50.0	51.0	
85 4-Chlorobenzotrifluoride	180	10.487	10.487	0.000	96	172012	50.0	53.2	
86 1,1,1,2-Tetrachloroethane	131	10.523	10.523	0.000	87	95506	50.0	52.0	
87 Ethylbenzene	106	10.529	10.529	0.000	99	192048	50.0	50.8	
88 m-Xylene & p-Xylene	106	10.657	10.657	0.000	99	238770	50.0	50.9	
89 o-Xylene	106	11.040	11.040	0.000	97	235466	50.0	50.2	
90 Styrene	104	11.065	11.065	0.000	95	380110	50.0	52.8	
91 Bromoform	173	11.247	11.247	0.000	94	40554	50.0	49.4	
92 2-Chlorobenzotrifluoride	180	11.302	11.302	0.000	96	180108	50.0	50.4	
93 Isopropylbenzene	105	11.412	11.412	0.000	97	569831	50.0	50.8	
96 1,1,2,2-Tetrachloroethane	83	11.716	11.716	0.000	96	132693	50.0	44.0	
95 Bromobenzene	156	11.728	11.728	0.000	97	137043	50.0	45.4	
97 trans-1,4-Dichloro-2-buten	53	11.752	11.752	0.000	74	40421	50.0	42.2	
98 1,2,3-Trichloropropane	110	11.777	11.777	0.000	85	47761	50.0	41.6	
99 N-Propylbenzene	120	11.825	11.825	0.000	99	156215	50.0	44.9	
100 2-Chlorotoluene	126	11.910	11.910	0.000	94	130402	50.0	45.2	
101 3-Chlorotoluene	126	11.977	11.977	0.000	96	138083	50.0	45.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.008	12.008	0.000	92	511442	50.0	45.2	
103 4-Chlorotoluene	126	12.038	12.038	0.000	99	142565	50.0	46.7	
104 tert-Butylbenzene	119	12.324	12.324	0.000	92	382318	50.0	42.8	
106 1,2,4-Trimethylbenzene	105	12.385	12.385	0.000	98	516649	50.0	44.7	
107 1,2-dichloro-4-(trifluorom	214	12.421	12.421	0.000	97	153208	50.0	46.8	
108 sec-Butylbenzene	105	12.549	12.549	0.000	96	612707	50.0	45.9	
109 1,3-Dichlorobenzene	146	12.671	12.671	0.000	95	265318	50.0	45.0	
110 4-Isopropyltoluene	119	12.707	12.707	0.000	96	489247	50.0	43.7	
111 1,4-Dichlorobenzene	146	12.774	12.774	0.000	91	279025	50.0	46.3	
113 2,4-Dichloro-1-(trifluorom	214	12.792	12.792	0.000	95	149048	50.0	45.7	
114 2,5-Dichlorobenzotrifluori	214	12.835	12.835	0.000	98	168796	50.0	46.4	
116 n-Butylbenzene	91	13.115	13.115	0.000	98	476404	50.0	42.6	
117 1,2-Dichlorobenzene	146	13.127	13.127	0.000	93	262878	50.0	44.1	
118 1,2-Dibromo-3-Chloropropan	75	13.912	13.924	-0.012	70	18567	50.0	34.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.058	14.058	0.000	99	657369	150.0	126.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.478	14.478	0.000	99	468624	100.0	81.9	
122 1,2,4-Trichlorobenzene	180	14.745	14.745	0.000	93	195226	50.0	42.3	
123 Hexachlorobutadiene	225	14.891	14.891	0.000	93	89394	50.0	49.2	
124 Naphthalene	128	15.013	15.013	0.000	98	375668	50.0	40.3	
125 1,2,3-Trichlorobenzene	180	15.232	15.232	0.000	94	172526	50.0	39.9	
126 2,4,5-Trichlorotoluene	159	16.011	16.011	0.000	0	104818	50.0	36.1	
127 2,3,6-Trichlorotoluene	159	16.108	16.108	0.000	95	109515	50.0	39.8	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	101.1	
S 130 1,2-Dichloroethene, Total	96				0		100.0	89.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	96.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

VOA8260VOAPRI_00145	Amount Added: 2.00	Units: uL	
voaWKet1stRes_00001	Amount Added: 2.00	Units: uL	
VOAVAPRI_00007	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930002.D

Injection Date: 30-Sep-2015 11:30:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

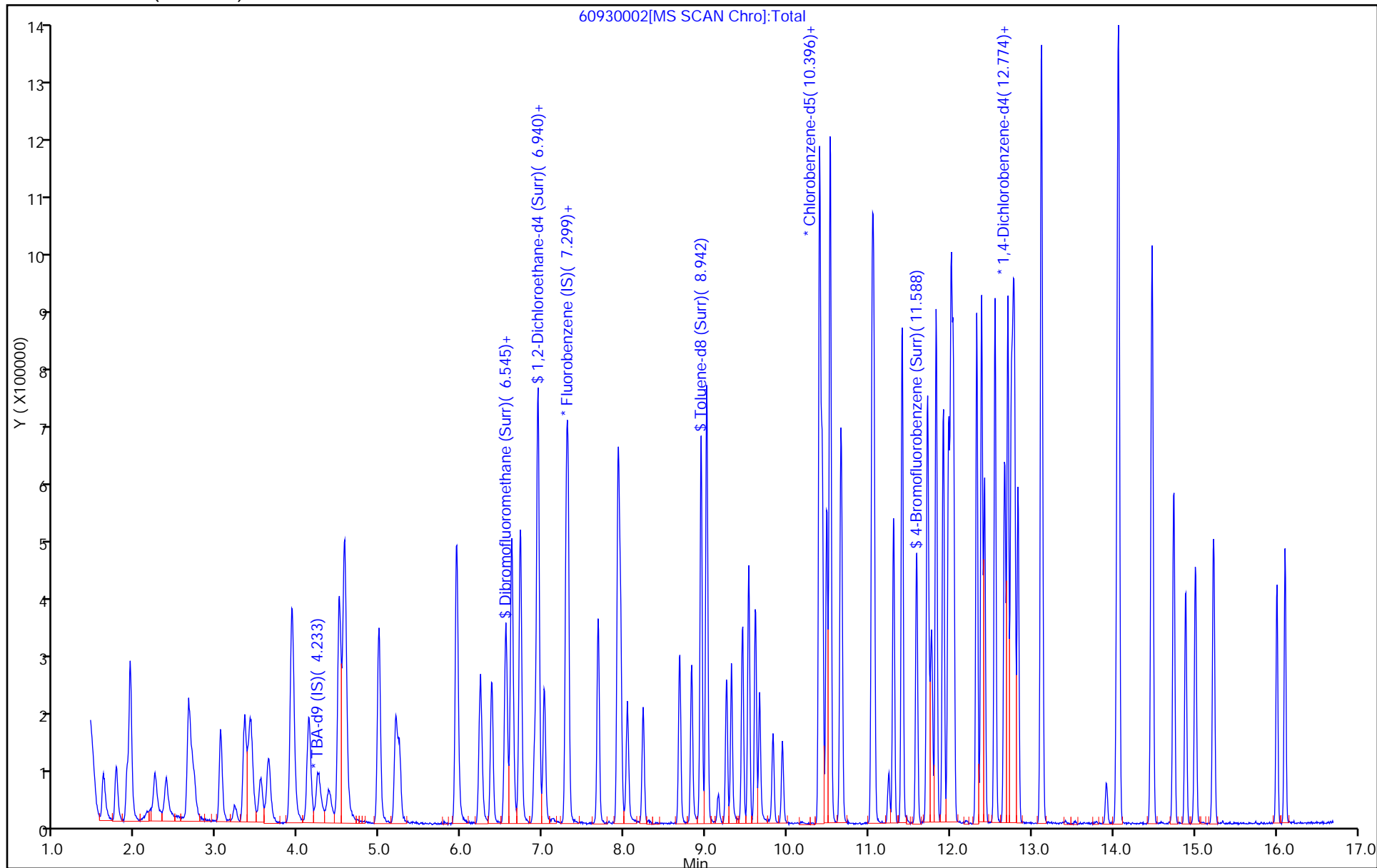
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



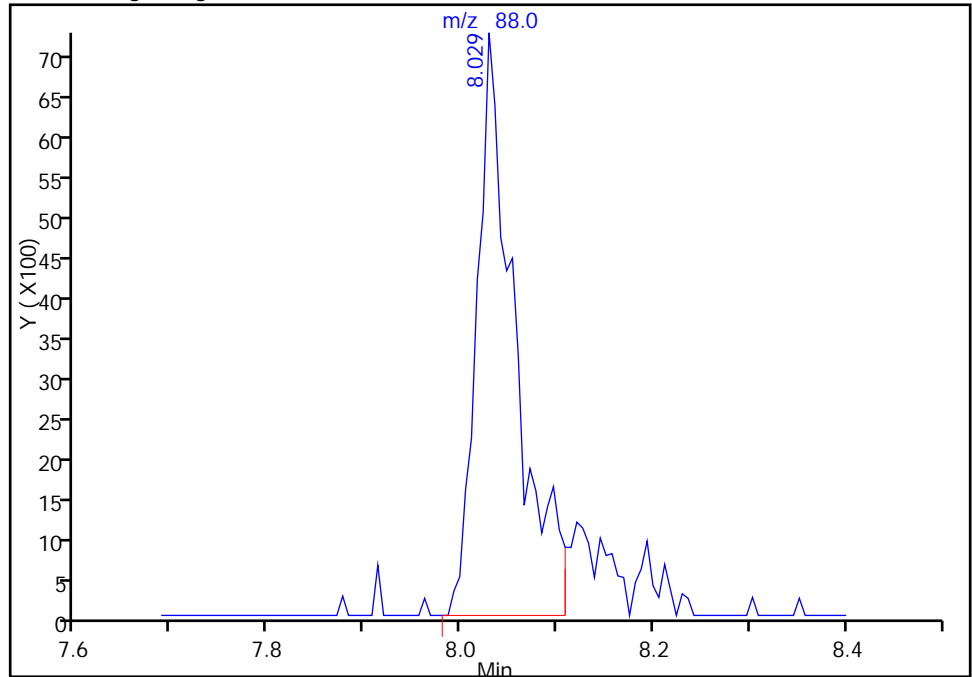
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930002.D  
Injection Date: 30-Sep-2015 11:30:30 Instrument ID: CHHP6  
Lims ID: CCVIS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

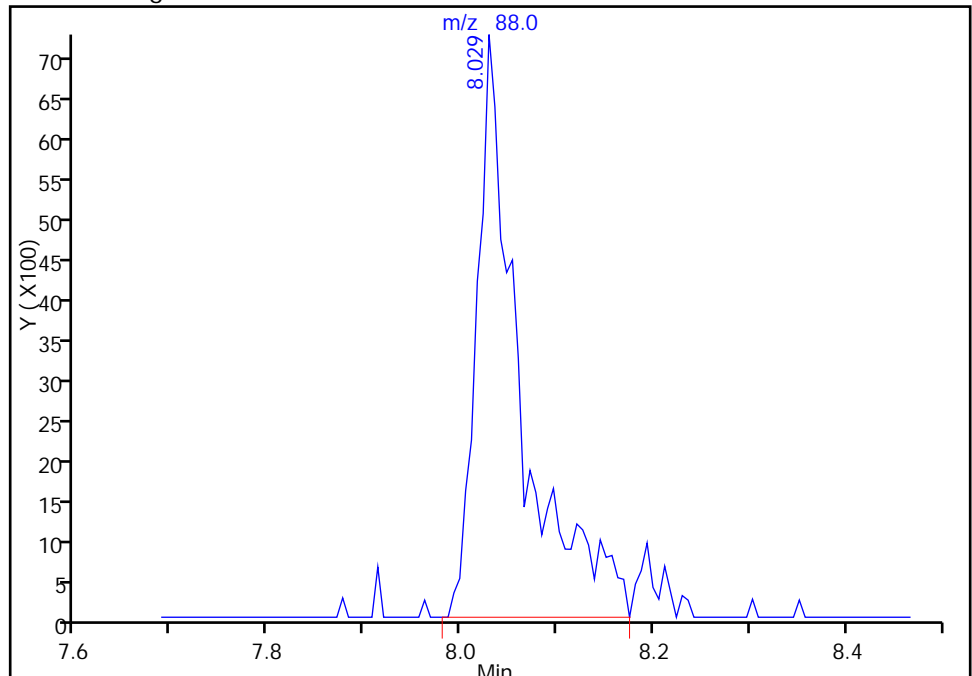
RT: 8.03  
Area: 20083  
Amount: 788.3176  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 22987  
Amount: 902.3082  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 30-Sep-2015 11:58:49  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 31-Jul-2015 12:10:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0007999-001  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 03-Aug-2015 12:15:22 Calib Date: 31-Jul-2015 18:02:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731014.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK049

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.381	8.381	0.000	0	114672	NR	NR	

**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

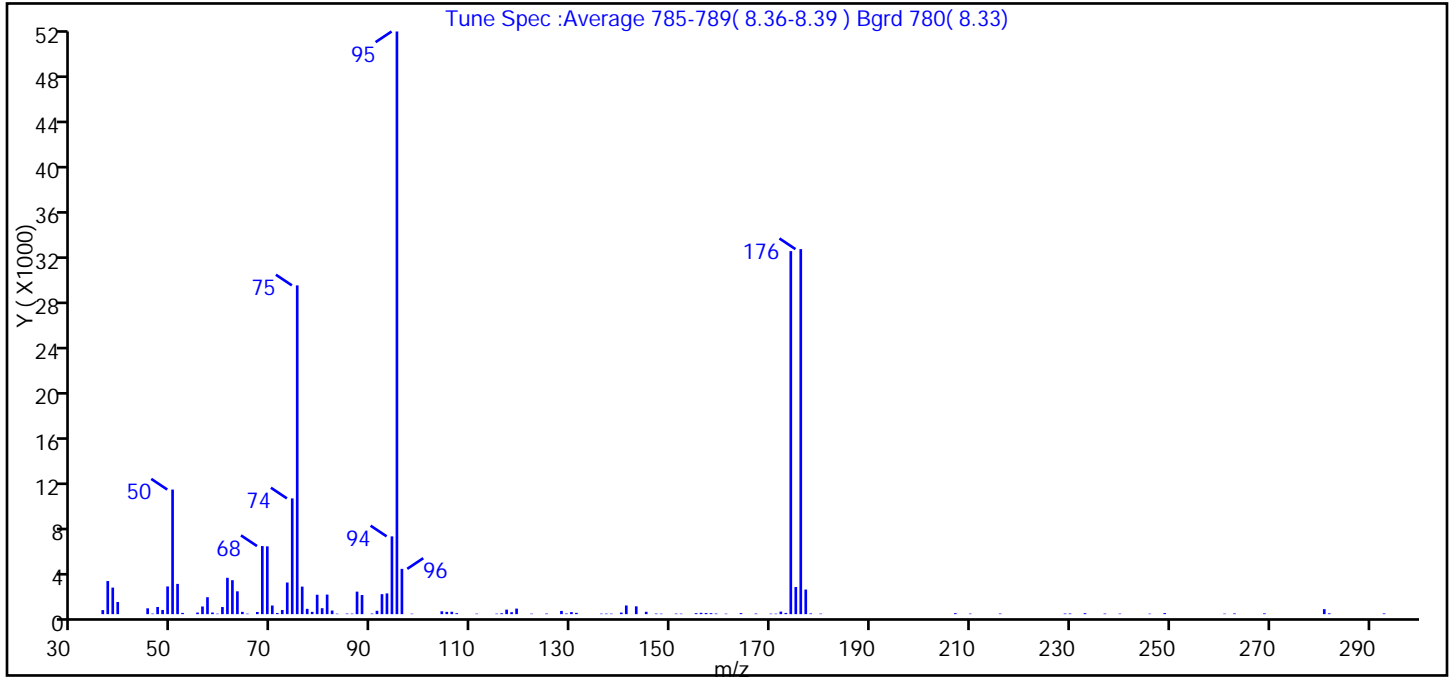
**Reagents:**

VOABFB25\_00064 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D  
 Injection Date: 31-Jul-2015 12:10:30 Instrument ID: CHHP6  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP6 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	21.4
75	30 to 60% of m/z 95	56.4
96	5 to 9% of m/z 95	7.8
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	62.3
175	5 to 9% of m/z 174	4.7 (7.5)
176	Greater than 95% but less than 101% of m/z 174	62.6 (100.6)
177	5 to 9% of m/z 176	4.2 (6.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
Injection Date: 31-Jul-2015 12:10:30  
Spectrum: Tune Spec :Average 785-789( 8.36-8.39 ) Bgrd 780( 8.33)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	357	73.00	2786	116.00	79	170.00	42
37.00	2914	74.00	10190	117.00	397	171.00	42
38.00	2336	75.00	28944	118.00	172	172.00	223
39.00	1071	76.00	2425	119.00	489	173.00	107
45.00	513	77.00	467	122.00	43	174.00	31960
46.00	47	78.00	201	125.00	52	175.00	2388
47.00	630	79.00	1709	128.00	283	176.00	32136
48.00	370	80.00	524	129.00	57	177.00	2165
49.00	2439	81.00	1723	130.00	180	178.00	64
50.00	10968	82.00	318	131.00	115	180.00	45
51.00	2663	83.00	42	136.00	43	207.00	82
52.00	110	85.00	51	137.00	46	210.00	48
55.00	140	86.00	45	138.00	43	216.00	52
56.00	674	87.00	1982	140.00	137	229.00	53
57.00	1491	88.00	1683	141.00	763	230.00	56
58.00	144	90.00	51	143.00	689	233.00	85
59.00	42	91.00	295	145.00	209	237.00	52
60.00	626	92.00	1761	147.00	52	240.00	44
61.00	3200	93.00	1826	148.00	43	246.00	42
62.00	2990	94.00	6848	151.00	49	249.00	90
63.00	2009	95.00	51296	152.00	43	261.00	42
64.00	201	96.00	3987	155.00	87	263.00	61
65.00	44	98.00	42	156.00	116	269.00	68
67.00	191	104.00	251	157.00	98	281.00	438
68.00	5995	105.00	201	158.00	87	282.00	71
69.00	5969	106.00	210	159.00	54	293.00	62
70.00	760	107.00	82	161.00	42		
71.00	96	111.00	42	164.00	89		
72.00	366	115.00	42	167.00	53		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150731-7999.b\60731001.D

Injection Date: 31-Jul-2015 12:10:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 28-Sep-2015 10:22:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008724-001  
 Operator ID: 034635 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 13:27:49 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond Date: 28-Sep-2015 10:43:51

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	8.378	8.378	0.000	0	123904	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

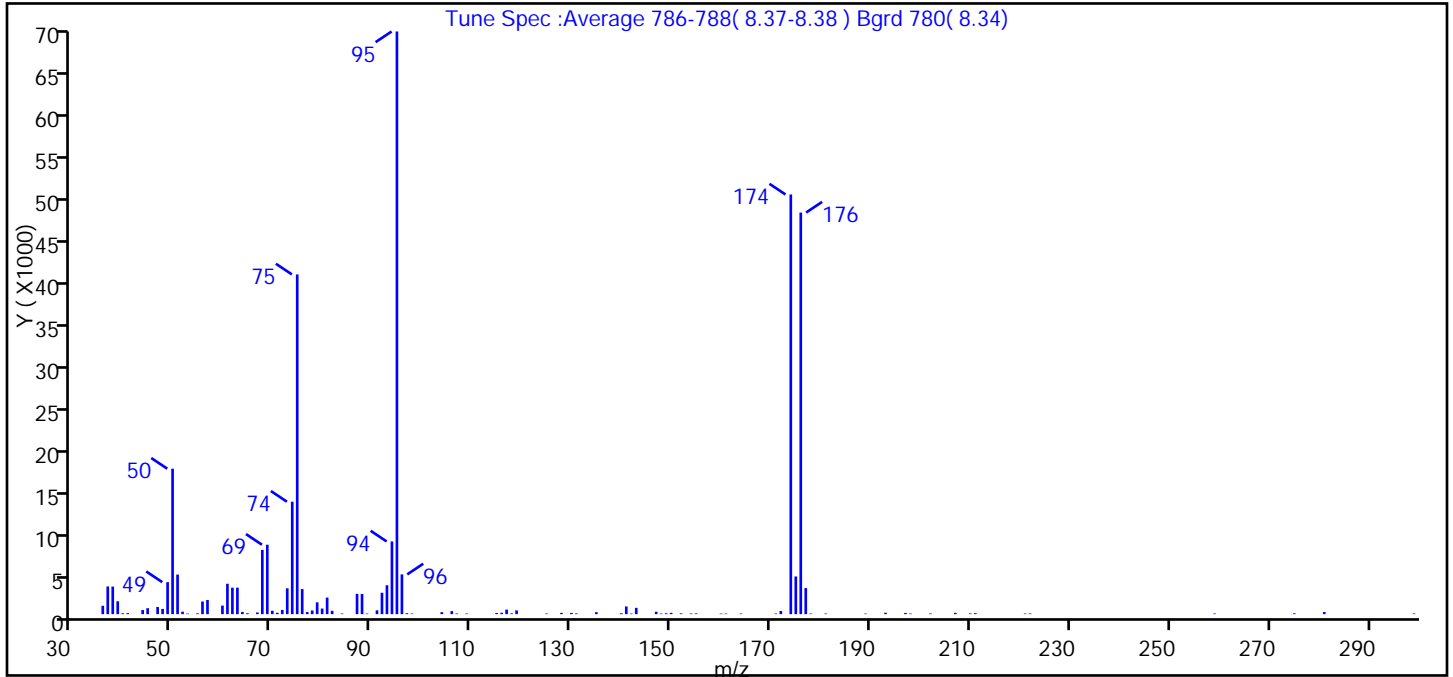
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928001.D  
 Injection Date: 28-Sep-2015 10:22:30 Instrument ID: CHHP6  
 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\_CHHP6 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	25.0
75	30 to 60% of m/z 95	58.3
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	72.0
175	5 to 9% of m/z 174	6.5 (9.0)
176	Greater than 95% but less than 101% of m/z 174	68.9 (95.7)
177	5 to 9% of m/z 176	4.5 (6.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
Injection Date: 28-Sep-2015 10:22:30  
Spectrum: Tune Spec :Average 786-788( 8.37-8.38 ) Bgrd 780( 8.34)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1004	69.00	8329	104.00	240	161.00	70
37.00	3320	70.00	404	106.00	366	164.00	74
38.00	3306	71.00	164	107.00	81	171.00	72
39.00	1546	72.00	509	109.00	75	172.00	379
40.00	105	73.00	3102	115.00	134	174.00	50360
41.00	120	74.00	13494	116.00	171	175.00	4520
44.00	491	75.00	40768	117.00	540	176.00	48192
45.00	715	76.00	3007	118.00	95	177.00	3127
47.00	860	77.00	252	119.00	449	178.00	74
48.00	630	78.00	441	125.00	76	181.00	77
49.00	3840	79.00	1420	128.00	155	189.00	69
50.00	17456	80.00	668	130.00	152	193.00	167
51.00	4748	81.00	1992	131.00	88	197.00	149
52.00	295	82.00	399	135.00	235	198.00	71
53.00	71	84.00	74	140.00	108	202.00	81
55.00	93	87.00	2432	141.00	923	207.00	155
56.00	1516	88.00	2425	142.00	68	210.00	81
57.00	1700	89.00	70	143.00	758	211.00	115
60.00	1028	91.00	459	147.00	289	221.00	71
61.00	3644	92.00	2567	148.00	70	222.00	77
62.00	3174	93.00	3470	149.00	105	259.00	76
63.00	3180	94.00	8724	150.00	157	275.00	97
64.00	266	95.00	69920	152.00	92	281.00	253
65.00	110	96.00	4772	154.00	78	299.00	77
67.00	201	97.00	112	155.00	89		
68.00	7709	98.00	68	160.00	68		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928001.D

Injection Date: 28-Sep-2015 10:22:30

Instrument ID: CHHP6

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\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)





TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929004.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 29-Sep-2015 10:59:30 ALS Bottle#: 1 Worklist Smp#: 4  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008741-004  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 29-Sep-2015 13:09:18 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: fergusond Date: 29-Sep-2015 11:11:16

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	8.375	8.375	0.000	0	277086	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

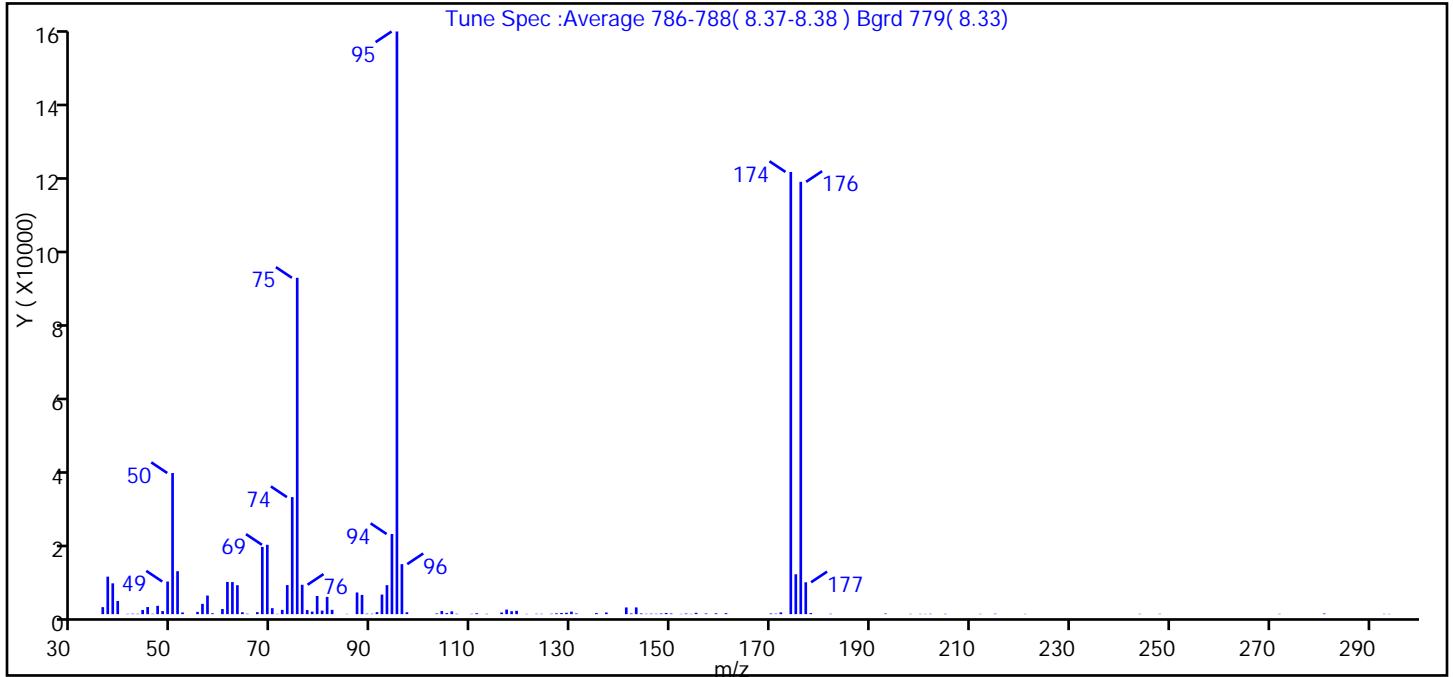
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929004.D  
 Injection Date: 29-Sep-2015 10:59:30 Instrument ID: CHHP6  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 4  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP6 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	24.2
75	30 to 60% of m/z 95	57.7
96	5 to 9% of m/z 95	8.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	75.9
175	5 to 9% of m/z 174	6.8 (9.0)
176	Greater than 95% but less than 101% of m/z 174	74.2 (97.8)
177	5 to 9% of m/z 176	5.5 (7.4)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929004.D\MSVOA\_LL\_CHHP6.rsl\spectr  
Injection Date: 29-Sep-2015 10:59:30  
Spectrum: Tune Spec :Average 786-788( 8.37-8.38 ) Bgrd 779( 8.33)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 118

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1810	71.00	87	111.00	243	155.00	346
37.00	9706	72.00	1112	113.00	85	157.00	174
38.00	7972	73.00	7527	116.00	424	159.00	217
39.00	3393	74.00	30288	117.00	1178	161.00	256
41.00	81	75.00	87040	118.00	754	170.00	174
42.00	111	76.00	7604	119.00	863	171.00	117
43.00	89	77.00	1055	121.00	71	172.00	453
44.00	1081	78.00	662	123.00	91	174.00	114440
45.00	1842	79.00	4694	124.00	89	175.00	10318
46.00	87	80.00	922	126.00	107	176.00	111872
47.00	2161	81.00	4460	127.00	220	177.00	8246
48.00	793	82.00	1111	128.00	295	178.00	280
49.00	8434	85.00	69	129.00	359	182.00	98
50.00	36520	87.00	5605	130.00	649	193.00	147
51.00	11113	88.00	4980	131.00	175	198.00	79
52.00	438	89.00	121	135.00	281	200.00	75
55.00	575	90.00	107	137.00	426	201.00	66
56.00	2659	91.00	528	141.00	1734	202.00	95
57.00	4813	92.00	5067	142.00	174	205.00	90
58.00	229	93.00	7503	143.00	1741	212.00	75
60.00	1327	94.00	20736	144.00	185	215.00	106
61.00	8338	95.00	150784	145.00	87	221.00	72
62.00	8298	96.00	12944	146.00	123	244.00	85
63.00	7489	97.00	477	147.00	94	248.00	88
64.00	493	103.00	171	148.00	169	272.00	84
65.00	107	104.00	810	149.00	306	281.00	162
67.00	514	105.00	282	150.00	174	293.00	77
68.00	17408	106.00	728	152.00	68	294.00	67
69.00	17944	107.00	103	153.00	160		
70.00	1547	110.00	78	154.00	71		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929004.D

Injection Date: 29-Sep-2015 10:59:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 4

Client ID:

Injection Vol: 5.0 mL

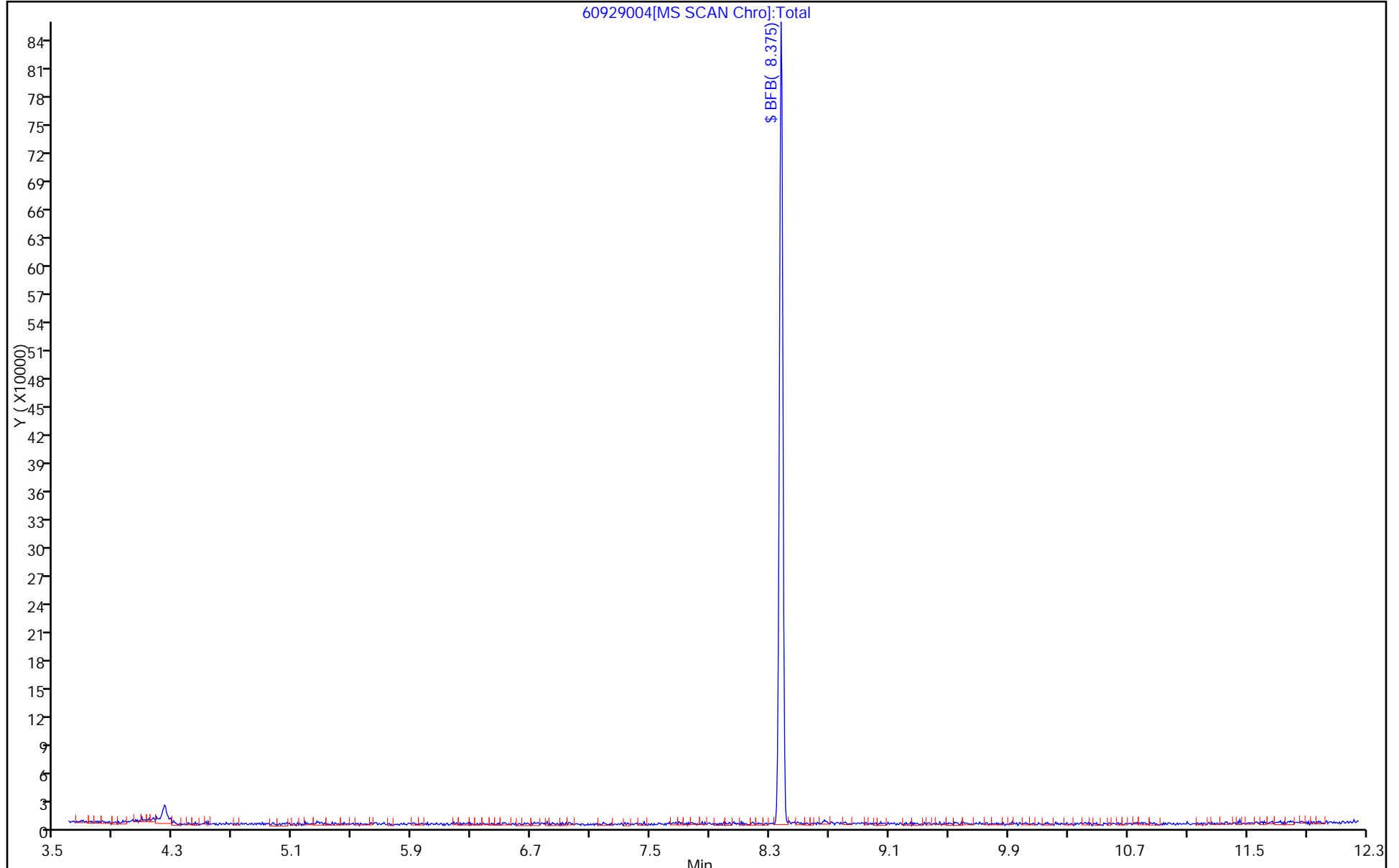
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930001.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 30-Sep-2015 10:50:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Sample Info: BFB  
 Misc. Info.: 180-0008760-001  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 12:58:07 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond Date: 30-Sep-2015 11:01:20

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	8.379	8.379	0.000	0	83887	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

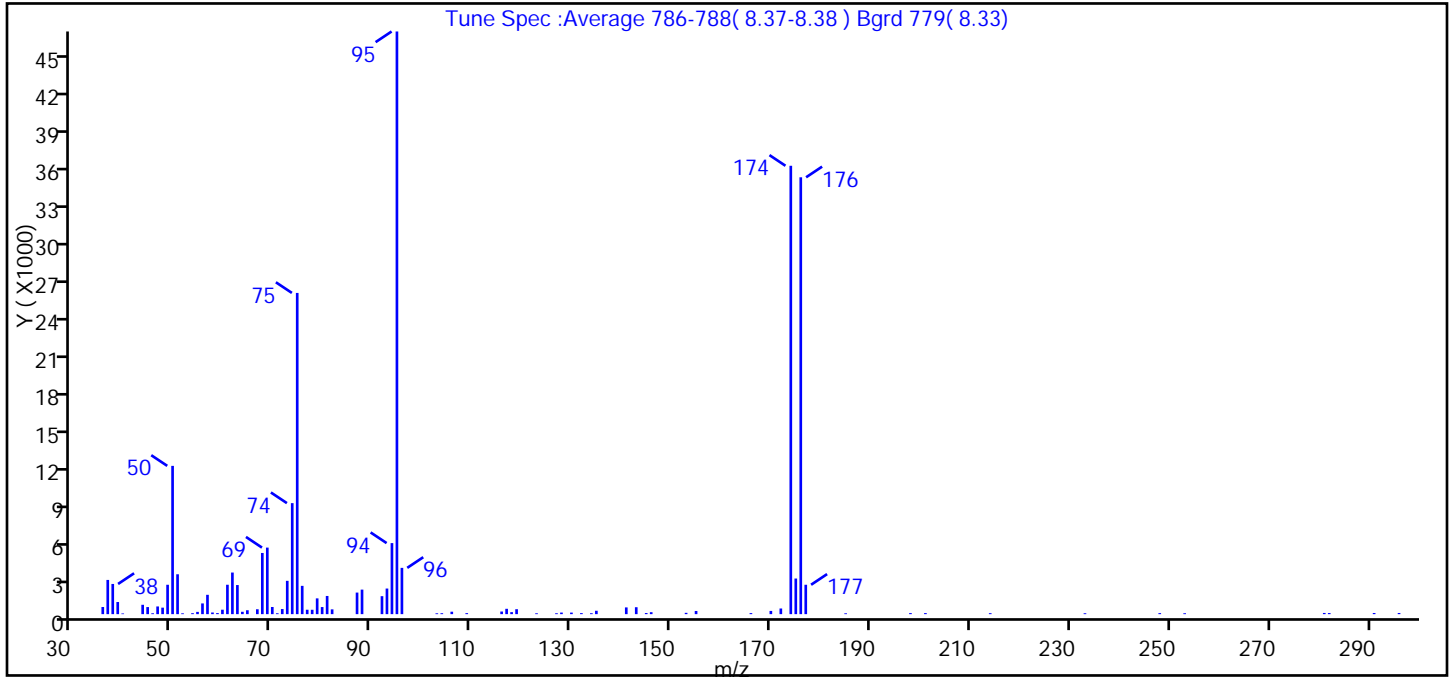
**Reagents:**

VOABFB25\_00067 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930001.D  
 Injection Date: 30-Sep-2015 10:50:30 Instrument ID: CHHP6  
 Lims ID: BFB  
 Client ID:  
 Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 5.0 mL Dil. Factor: 1.0000  
 Method: MSVOA\_LL\_CHHP6 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	25.4
75	30 to 60% of m/z 95	55.1
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	77.0
175	5 to 9% of m/z 174	6.1 (7.9)
176	Greater than 95% but less than 101% of m/z 174	75.0 (97.4)
177	5 to 9% of m/z 176	5.0 (6.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930001.D\MSVOA\_LL\_CHHP6.rsl\spectr  
 Injection Date: 30-Sep-2015 10:50:30  
 Spectrum: Tune Spec :Average 786-788( 8.37-8.38 ) Bgrd 779( 8.33)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 88

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	575	62.00	3353	92.00	1448	145.00	90
37.00	2757	63.00	2345	93.00	2063	146.00	157
38.00	2433	64.00	190	94.00	5726	153.00	106
39.00	977	65.00	314	95.00	46960	155.00	255
40.00	56	67.00	394	96.00	3730	166.00	84
44.00	754	68.00	4930	103.00	68	170.00	259
45.00	570	69.00	5363	104.00	75	172.00	455
46.00	71	70.00	576	106.00	197	174.00	36136
47.00	620	71.00	70	109.00	81	175.00	2870
48.00	523	72.00	411	116.00	211	176.00	35208
49.00	2368	73.00	2684	117.00	430	177.00	2368
50.00	11950	74.00	8947	118.00	162	185.00	68
51.00	3214	75.00	25888	119.00	398	198.00	85
52.00	67	76.00	2280	123.00	69	201.00	85
54.00	78	77.00	355	127.00	72	214.00	78
55.00	182	78.00	353	128.00	128	233.00	72
56.00	864	79.00	1271	130.00	126	248.00	83
57.00	1558	80.00	571	132.00	83	253.00	73
58.00	132	81.00	1465	134.00	74	281.00	95
59.00	85	82.00	386	135.00	272	282.00	87
60.00	358	87.00	1738	141.00	543	291.00	92
61.00	2369	88.00	1977	143.00	558	296.00	93

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930001.D

Injection Date: 30-Sep-2015 10:50:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-155089/4  
 Matrix: Water Lab File ID: 60928004.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 12:18  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-155089/4  
 Matrix: Water Lab File ID: 60928004.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 12:18  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928004.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 28-Sep-2015 12:18:30 ALS Bottle#: 4 Worklist Smp#: 4  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008724-004  
 Operator ID: 034635 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 13:32:29 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 28-Sep-2015 13:32:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.241	-0.012	91	203220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	97	570858	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.397	10.398	-0.001	91	127707	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.752	12.746	0.006	98	213043	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.559	6.547	0.012	93	118826	50.0	45.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.930	0.006	71	209018	50.0	49.3	
\$ 7 Toluene-d8 (Surr)	98	8.943	8.938	0.005	94	536880	50.0	53.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	84	212611	50.0	47.5	
11 Dichlorodifluoromethane	85		1.613					ND	
12 Chloromethane	50		1.765					ND	
13 Vinyl chloride	62		1.905					ND	
14 Butadiene	39		1.942					ND	
15 Bromomethane	94		2.240					ND	
16 Chloroethane	64		2.380					ND	
17 Dichlorofluoromethane	67		2.654					ND	
18 Trichlorofluoromethane	101		2.684					ND	
19 Ethanol	45		2.915					ND	
20 Ethyl ether	59		3.037					ND	
21 Acrolein	56		3.213					ND	
22 1,1-Dichloroethene	96		3.341					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.402					ND	
24 Acetone	43		3.426					ND	
25 Iodomethane	142		3.530					ND	
26 Carbon disulfide	76		3.633					ND	
27 Isopropyl alcohol	45		3.670					ND	
28 Acetonitrile	40		3.834					ND	
29 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.919					ND	
31 Methylene Chloride	84		4.126					ND	
32 2-Methyl-2-propanol	59		4.387					ND	
33 Acrylonitrile	53		4.503					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		4.558					ND	
35 Methyl tert-butyl ether	73		4.564					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.190					ND	
38 Vinyl acetate	43		5.239					ND	
40 Isopropyl ether	45		5.294					ND	
39 2-Chloro-1,3-butadiene	53		5.294					ND	
41 Tert-butyl ethyl ether	59		5.768					ND	
43 cis-1,2-Dichloroethene	96		5.933					ND	
42 2,2-Dichloropropane	77		5.939					ND	
44 2-Butanone (MEK)	43		5.951					ND	
45 Propionitrile	54		6.012					ND	
46 Ethyl acetate	43		6.024					ND	
47 Methacrylonitrile	41		6.194					ND	
48 Chlorobromomethane	128		6.225					ND	
49 Tetrahydrofuran	42		6.243					ND	
50 Chloroform	83		6.371					ND	
51 1,1,1-Trichloroethane	97		6.535					ND	
52 Cyclohexane	56		6.620					ND	
53 Carbon tetrachloride	117		6.717					ND	
54 1,1-Dichloropropene	75		6.730					ND	
55 Isobutyl alcohol	41		6.900					ND	
56 Benzene	78		6.942					ND	
57 1,2-Dichloroethane	62		7.015					ND	
148 Isooctane	57		7.101					ND	
58 Tert-amyl methyl ether	73		7.119					ND	
59 n-Heptane	43		7.307					ND	
60 n-Butanol	56		7.612					ND	
61 Trichloroethene	130		7.679					ND	
62 Ethyl acrylate	55		7.794					ND	
63 Methylcyclohexane	83		7.922					ND	
64 1,2-Dichloropropane	63		7.952					ND	
66 Methyl methacrylate	69		8.025					ND	
67 Dibromomethane	93		8.038					ND	
65 1,4-Dioxane	88		8.038					ND	
68 Dichlorobromomethane	83		8.232					ND	
69 2-Nitropropane	41		8.445					ND	
70 2-Chloroethyl vinyl ether	63		8.530					ND	
71 cis-1,3-Dichloropropene	75		8.676					ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.822					ND	
73 Toluene	91		9.011					ND	
74 trans-1,3-Dichloropropene	75		9.254					ND	
75 Ethyl methacrylate	69		9.315					ND	
76 1,1,2-Trichloroethane	97		9.449					ND	
77 Tetrachloroethene	164		9.528					ND	
78 1,3-Dichloropropane	76		9.607					ND	
79 2-Hexanone	43		9.656					ND	
80 n-Butyl acetate	43		9.783					ND	
81 Chlorodibromomethane	129		9.820					ND	
82 Ethylene Dibromide	107		9.936					ND	
83 3-Chlorobenzotrifluoride	180		10.392					ND	
84 Chlorobenzene	112		10.428					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.659					ND	
89 o-Xylene	106		11.037					ND	
90 Styrene	104		11.061					ND	
91 Bromoform	173		11.244					ND	
129 Cyclohexanol	57		11.246					ND	
92 2-Chlorobenzotrifluoride	180		11.304					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.493					ND	
96 1,1,2,2-Tetrachloroethane	83		11.712					ND	
95 Bromobenzene	156		11.724					ND	
97 trans-1,4-Dichloro-2-buten	53		11.748					ND	
98 1,2,3-Trichloropropane	110		11.773					ND	
99 N-Propylbenzene	120		11.828					ND	
100 2-Chlorotoluene	126		11.913					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.010					ND	
103 4-Chlorotoluene	126		12.040					ND	
104 tert-Butylbenzene	119		12.326					ND	
105 Pentachloroethane	167		12.357					ND	
106 1,2,4-Trimethylbenzene	105		12.381					ND	
107 1,2-dichloro-4-(trifluorom	214		12.418					ND	
108 sec-Butylbenzene	105		12.551					ND	
109 1,3-Dichlorobenzene	146		12.667					ND	
110 4-Isopropyltoluene	119		12.704					ND	
111 1,4-Dichlorobenzene	146		12.770					ND	
113 2,4-Dichloro-1-(triflourom	214		12.789					ND	
112 1,2,3-Trimethylbenzene	105		12.795					ND	
114 2,5-Dichlorobenzotrifluori	214		12.831					ND	
115 Benzyl chloride	91		12.880					ND	
116 n-Butylbenzene	91		13.111					ND	
117 1,2-Dichlorobenzene	146		13.123					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060					ND	
120 1,3,5-Trichlorobenzene	180		14.109					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.474					ND	
122 1,2,4-Trichlorobenzene	180		14.741					ND	
123 Hexachlorobutadiene	225		14.894					ND	
124 Naphthalene	128	15.009	15.009	-0.001	93	7510		0.7109	M
125 1,2,3-Trichlorobenzene	180		15.228					ND	
126 2,4,5-Trichlorotoluene	159		16.007					ND	
127 2,3,6-Trichlorotoluene	159		16.110					ND	
128 2-Methylnaphthalene	142	16.146	16.153	-0.007	0	518		NC	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
146 3,4-Dichlorotoluene	1		0.000						ND
153 1,2 Epoxybutane TIC	1		0.000						ND
145 2,3-Dichlorotoluene	1		0.000						ND
S 131 Xylenes, Total	106		1.000						ND
S 130 1,2-Dichloroethene, Total	96		1.000						ND
S 132 1,3-Dichloropropene, Total	1		0.000						ND
T 135 Mesityl oxide TIC	83		0.000						ND
T 134 Methyl n-amyl ketone TIC	43		0.000						ND
T 133 Tetrahydrofuran TIC	42		0.000						ND

**QC Flag Legend**

## Processing Flags

NC - Not Calibrated

## Review Flags

M - Manually Integrated

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928004.D

Injection Date: 28-Sep-2015 12:18:30

Instrument ID: CHHP6

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

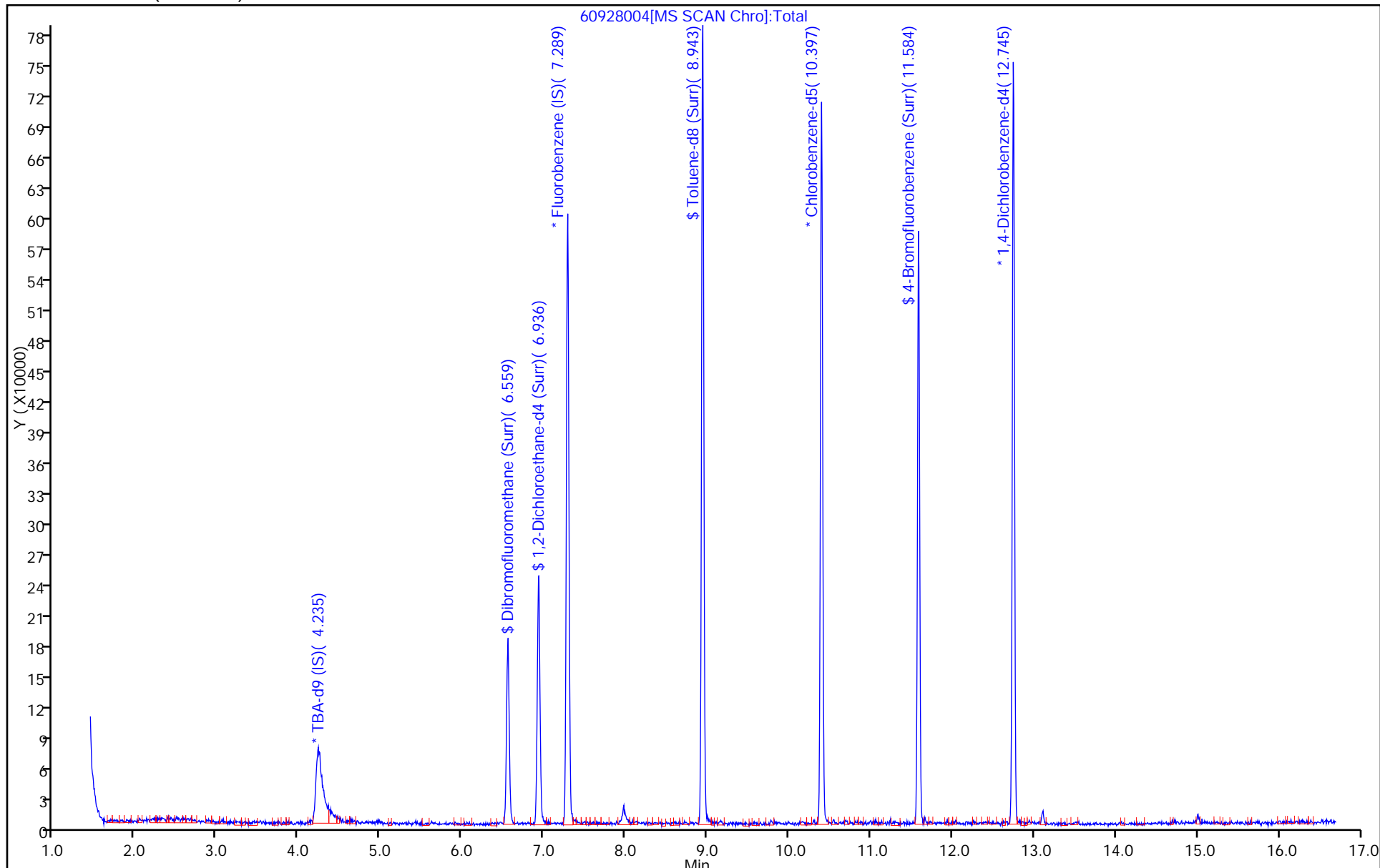
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-155230/5  
 Matrix: Water Lab File ID: 60929005.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 12:50  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-155230/5  
 Matrix: Water Lab File ID: 60929005.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 12:50  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929005.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 29-Sep-2015 12:50:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008741-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 29-Sep-2015 13:14:43 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: RT Order ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: fergusond

Date: 29-Sep-2015 13:14:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.242	-0.013	84	179982	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.283	0.006	97	517037	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	115558	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.746	0.000	98	190638	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.553	0.000	93	118539	50.0	49.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.931	-0.001	71	192533	50.0	50.1	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.938	0.006	94	485527	50.0	53.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.584	0.000	85	185935	50.0	45.9	
11 Dichlorodifluoromethane	85		1.608					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.936					ND	
15 Bromomethane	94		2.246					ND	
16 Chloroethane	64		2.380					ND	
17 Dichlorofluoromethane	67		2.654					ND	
18 Trichlorofluoromethane	101		2.690					ND	
19 Ethanol	45		2.915					ND	
20 Ethyl ether	59		3.043					ND	
21 Acrolein	56		3.214					ND	
22 1,1-Dichloroethene	96		3.335					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.408					ND	
24 Acetone	43		3.420					ND	
25 Iodomethane	142		3.530					ND	
26 Carbon disulfide	76		3.627					ND	
27 Isopropyl alcohol	45		3.670					ND	
28 Acetonitrile	40		3.834					ND	
29 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.919					ND	
31 Methylene Chloride	84		4.120					ND	
32 2-Methyl-2-propanol	59		4.376					ND	
33 Acrylonitrile	53		4.503					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		4.558					ND	
35 Methyl tert-butyl ether	73		4.570					ND	
36 Hexane	57		4.984					ND	
37 1,1-Dichloroethane	63		5.191					ND	
38 Vinyl acetate	43		5.239					ND	
40 Isopropyl ether	45		5.294					ND	
39 2-Chloro-1,3-butadiene	53		5.294					ND	
41 Tert-butyl ethyl ether	59		5.768					ND	
43 cis-1,2-Dichloroethene	96		5.939					ND	
42 2,2-Dichloropropane	77		5.939					ND	
44 2-Butanone (MEK)	43		5.945					ND	
45 Propionitrile	54		6.012					ND	
46 Ethyl acetate	43		6.024					ND	
47 Methacrylonitrile	41		6.194					ND	
48 Chlorobromomethane	128		6.231					ND	
49 Tetrahydrofuran	42		6.249					ND	
50 Chloroform	83		6.371					ND	
51 1,1,1-Trichloroethane	97		6.541					ND	
52 Cyclohexane	56		6.614					ND	
53 Carbon tetrachloride	117		6.712					ND	
54 1,1-Dichloropropene	75		6.724					ND	
55 Isobutyl alcohol	41		6.894					ND	
56 Benzene	78		6.937					ND	
57 1,2-Dichloroethane	62		7.016					ND	
148 Isooctane	57		7.101					ND	
58 Tert-amyl methyl ether	73		7.119					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.612					ND	
61 Trichloroethene	130		7.679					ND	
62 Ethyl acrylate	55		7.794					ND	
63 Methylcyclohexane	83		7.922					ND	
64 1,2-Dichloropropane	63		7.953					ND	
66 Methyl methacrylate	69		8.025					ND	
67 Dibromomethane	93		8.032					ND	
65 1,4-Dioxane	88		8.032					ND	
68 Dichlorobromomethane	83		8.226					ND	
69 2-Nitropropane	41		8.445					ND	
70 2-Chloroethyl vinyl ether	63		8.530					ND	
71 cis-1,3-Dichloropropene	75		8.677					ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.823					ND	
73 Toluene	91		9.011					ND	
74 trans-1,3-Dichloropropene	75		9.254					ND	
75 Ethyl methacrylate	69		9.315					ND	
76 1,1,2-Trichloroethane	97		9.449					ND	
77 Tetrachloroethene	164		9.522					ND	
78 1,3-Dichloropropane	76		9.607					ND	
79 2-Hexanone	43		9.662					ND	
80 n-Butyl acetate	43		9.783					ND	
81 Chlorodibromomethane	129		9.826					ND	
82 Ethylene Dibromide	107		9.942					ND	
83 3-Chlorobenzotrifluoride	180		10.398					ND	
84 Chlorobenzene	112		10.429					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.483					ND	
86 1,1,1,2-Tetrachloroethane	131		10.520					ND	
87 Ethylbenzene	106		10.526					ND	
88 m-Xylene & p-Xylene	106		10.660					ND	
89 o-Xylene	106		11.037					ND	
90 Styrene	104		11.061					ND	
91 Bromoform	173		11.244					ND	
129 Cyclohexanol	57		11.246					ND	
92 2-Chlorobenzotrifluoride	180		11.305					ND	
93 Isopropylbenzene	105		11.408					ND	
94 Cyclohexanone	55		11.493					ND	
96 1,1,2,2-Tetrachloroethane	83		11.712					ND	
95 Bromobenzene	156		11.724					ND	
97 trans-1,4-Dichloro-2-buten	53		11.755					ND	
98 1,2,3-Trichloropropane	110		11.773					ND	
99 N-Propylbenzene	120		11.828					ND	
100 2-Chlorotoluene	126		11.913					ND	
101 3-Chlorotoluene	126		11.980					ND	
102 1,3,5-Trimethylbenzene	105		12.010					ND	
103 4-Chlorotoluene	126		12.041					ND	
104 tert-Butylbenzene	119		12.327					ND	
105 Pentachloroethane	167		12.357					ND	
106 1,2,4-Trimethylbenzene	105		12.381					ND	
107 1,2-dichloro-4-(trifluorom	214		12.418					ND	
108 sec-Butylbenzene	105		12.546					ND	
109 1,3-Dichlorobenzene	146		12.667					ND	
110 4-Isopropyltoluene	119		12.704					ND	
111 1,4-Dichlorobenzene	146		12.771					ND	
113 2,4-Dichloro-1-(triflourom	214		12.789					ND	
112 1,2,3-Trimethylbenzene	105		12.795					ND	
114 2,5-Dichlorobenzotrifluori	214		12.832					ND	
115 Benzyl chloride	91		12.880					ND	
116 n-Butylbenzene	91		13.111					ND	
117 1,2-Dichlorobenzene	146		13.130					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.914					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.060					ND	
120 1,3,5-Trichlorobenzene	180		14.109					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.474					ND	
122 1,2,4-Trichlorobenzene	180		14.742					ND	
123 Hexachlorobutadiene	225		14.888					ND	
124 Naphthalene	128		15.009					ND	
125 1,2,3-Trichlorobenzene	180		15.235					ND	
126 2,4,5-Trichlorotoluene	159		16.007					ND	
127 2,3,6-Trichlorotoluene	159		16.111					ND	
128 2-Methylnaphthalene	142		16.153					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
149 Isopropyl ether TIC	1		0.000						ND
143 2,5-Dichlorotoluene	1		0.000						ND
150 Tert-butyl ethyl ether (TI	1		0.000						ND
S 131 Xylenes, Total	106		1.000						ND
S 130 1,2-Dichloroethene, Total	96		1.000						ND
S 132 1,3-Dichloropropene, Total	1		0.000						ND
T 135 Mesityl oxide TIC	83		0.000						ND
T 134 Methyl n-amyl ketone TIC	43		0.000						ND
T 133 Tetrahydrofuran TIC	42		0.000						ND

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929005.D

Injection Date: 29-Sep-2015 12:50:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

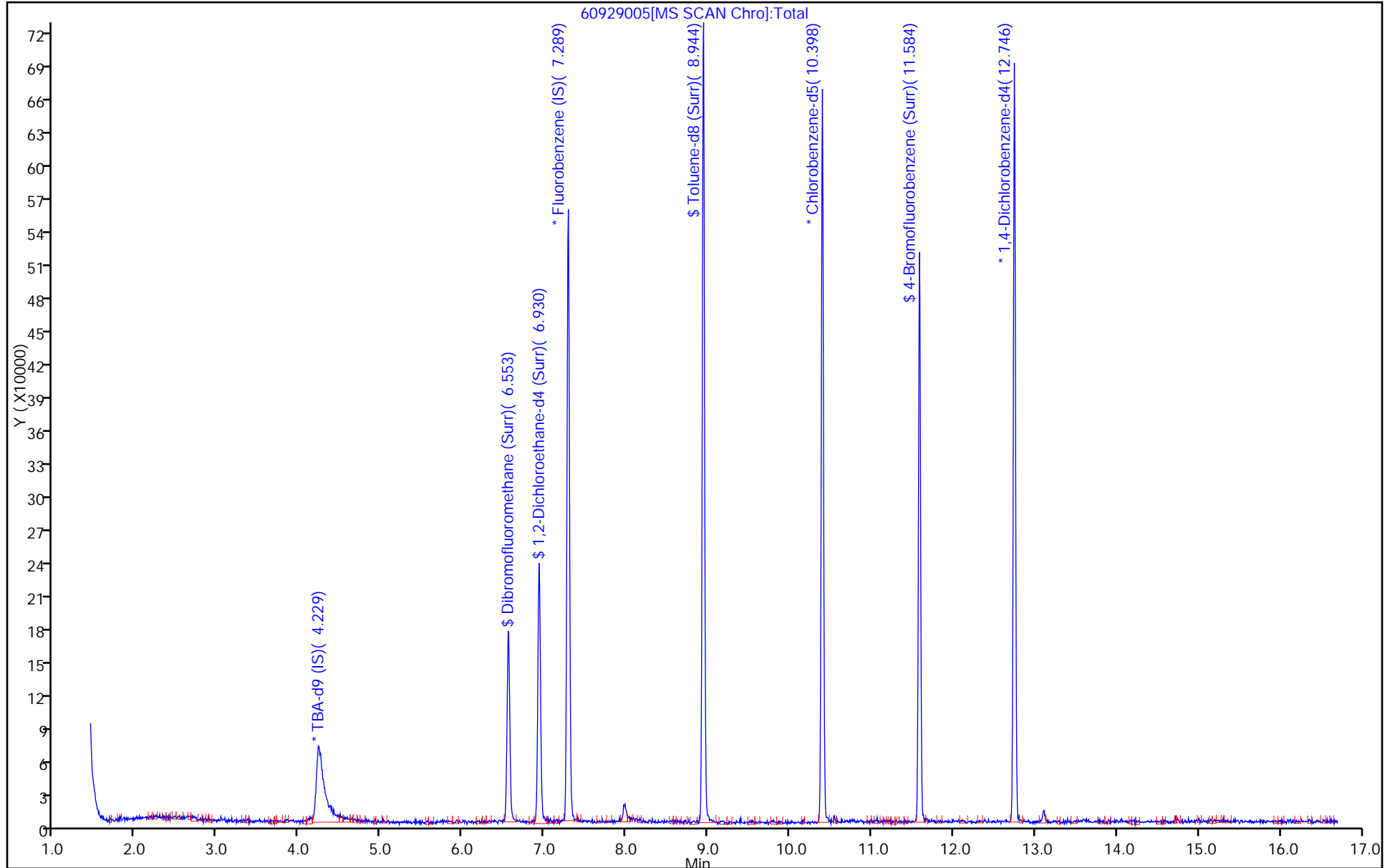
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-155405/5  
 Matrix: Water Lab File ID: 60930005.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 12:44  
 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.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	ND		1.0	0.28
75-01-4	Vinyl chloride	ND		1.0	0.23
74-83-9	Bromomethane	ND		1.0	0.31
75-00-3	Chloroethane	ND		1.0	0.21
75-35-4	1,1-Dichloroethene	ND		1.0	0.30
67-64-1	Acetone	ND		5.0	2.5
75-15-0	Carbon disulfide	ND		1.0	0.21
75-09-2	Methylene Chloride	ND		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.17
1634-04-4	Methyl tert-butyl ether	ND		1.0	0.18
75-34-3	1,1-Dichloroethane	ND		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.24
74-97-5	Bromochloromethane	ND		1.0	0.18
78-93-3	2-Butanone (MEK)	ND		5.0	0.55
67-66-3	Chloroform	ND		1.0	0.17
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.29
56-23-5	Carbon tetrachloride	ND		1.0	0.14
71-43-2	Benzene	ND		1.0	0.11
107-06-2	1,2-Dichloroethane	ND		1.0	0.21
79-01-6	Trichloroethene	ND		1.0	0.14
78-87-5	1,2-Dichloropropane	ND		1.0	0.095
75-27-4	Bromodichloromethane	ND		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	ND		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.53
108-88-3	Toluene	ND		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	ND		1.0	0.15
79-00-5	1,1,2-Trichloroethane	ND		1.0	0.20
127-18-4	Tetrachloroethene	ND		1.0	0.15
591-78-6	2-Hexanone	ND		5.0	0.16
124-48-1	Dibromochloromethane	ND		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	ND		1.0	0.18
108-90-7	Chlorobenzene	ND		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	ND		1.0	0.28
100-41-4	Ethylbenzene	ND		1.0	0.23
1330-20-7	Xylenes, Total	ND		3.0	0.49
100-42-5	Styrene	ND		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 180-155405/5  
 Matrix: Water Lab File ID: 60930005.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 12:44  
 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.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	ND		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1.0	0.20
107-13-1	Acrylonitrile	ND		20	0.55
123-91-1	1,4-Dioxane	ND		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930005.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 30-Sep-2015 12:44:30 ALS Bottle#: 5 Worklist Smp#: 5  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: MB  
 Misc. Info.: 180-0008760-005  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 13:43:21 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond Date: 30-Sep-2015 13:43:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.235	4.230	0.005	91	173038	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	97	473797	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	91	102015	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	170310	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.557	-0.004	93	106637	50.0	48.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.928	0.002	71	178791	50.0	50.8	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.942	0.002	94	434529	50.0	54.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.588	-0.004	84	165935	50.0	46.4	
11 Dichlorodifluoromethane	85		1.605					ND	
12 Chloromethane	50		1.763					ND	
13 Vinyl chloride	62		1.897					ND	
14 Butadiene	39		1.934					ND	
15 Bromomethane	94		2.238					ND	
16 Chloroethane	64		2.378					ND	
17 Dichlorofluoromethane	67		2.651					ND	
18 Trichlorofluoromethane	101		2.694					ND	
19 Ethanol	45		2.952					ND	
20 Ethyl ether	59		3.041					ND	
21 Acrolein	56		3.217					ND	
22 1,1-Dichloroethene	96		3.333					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.406					ND	
24 Acetone	43		3.430					ND	
25 Iodomethane	142		3.533					ND	
26 Carbon disulfide	76		3.631					ND	
27 Isopropyl alcohol	45		3.676					ND	
28 Acetonitrile	40		3.871					ND	
29 3-Chloro-1-propene	76		3.911					ND	
30 Methyl acetate	43		3.923					ND	
31 Methylene Chloride	84		4.124					ND	
32 2-Methyl-2-propanol	59		4.367					ND	
33 Acrylonitrile	53		4.501					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		4.562					ND	
35 Methyl tert-butyl ether	73		4.568					ND	
36 Hexane	57		4.987					ND	
37 1,1-Dichloroethane	63		5.194					ND	
38 Vinyl acetate	43		5.237					ND	
39 2-Chloro-1,3-butadiene	53		5.294					ND	
40 Isopropyl ether	45		5.294					ND	
41 Tert-butyl ethyl ether	59		5.769					ND	
43 cis-1,2-Dichloroethene	96		5.936					ND	
44 2-Butanone (MEK)	43		5.943					ND	
42 2,2-Dichloropropane	77		5.943					ND	
45 Propionitrile	54		6.018					ND	
46 Ethyl acetate	43		6.031					ND	
47 Methacrylonitrile	41		6.195					ND	
48 Chlorobromomethane	128		6.228					ND	
49 Tetrahydrofuran	42		6.247					ND	
50 Chloroform	83		6.374					ND	
51 1,1,1-Trichloroethane	97		6.539					ND	
52 Cyclohexane	56		6.618					ND	
53 Carbon tetrachloride	117		6.709					ND	
54 1,1-Dichloropropene	75		6.727					ND	
55 Isobutyl alcohol	41		6.898					ND	
56 Benzene	78		6.940					ND	
57 1,2-Dichloroethane	62		7.013					ND	
148 Isooctane	57		7.101					ND	
58 Tert-amyl methyl ether	73		7.119					ND	
59 n-Heptane	43		7.305					ND	
60 n-Butanol	56		7.606					ND	
61 Trichloroethene	130		7.676					ND	
62 Ethyl acrylate	55		7.795					ND	
63 Methylcyclohexane	83		7.920					ND	
64 1,2-Dichloropropane	63		7.950					ND	
65 1,4-Dioxane	88		8.029					ND	
66 Methyl methacrylate	69		8.032					ND	
67 Dibromomethane	93		8.035					ND	
68 Dichlorobromomethane	83		8.230					ND	
69 2-Nitropropane	41		8.446					ND	
70 2-Chloroethyl vinyl ether	63		8.530					ND	
71 cis-1,3-Dichloropropene	75		8.674					ND	
72 4-Methyl-2-pentanone (MIBK)	43		8.826					ND	
73 Toluene	91		9.009					ND	
74 trans-1,3-Dichloropropene	75		9.252					ND	
75 Ethyl methacrylate	69		9.313					ND	
76 1,1,2-Trichloroethane	97		9.453					ND	
77 Tetrachloroethene	164		9.526					ND	
78 1,3-Dichloropropane	76		9.611					ND	
79 2-Hexanone	43		9.660					ND	
80 n-Butyl acetate	43		9.784					ND	
81 Chlorodibromomethane	129		9.824					ND	
82 Ethylene Dibromide	107		9.939					ND	
83 3-Chlorobenzotrifluoride	180		10.396					ND	
84 Chlorobenzene	112		10.426					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.487					ND	
86 1,1,1,2-Tetrachloroethane	131		10.523					ND	
87 Ethylbenzene	106		10.529					ND	
88 m-Xylene & p-Xylene	106		10.657					ND	
89 o-Xylene	106		11.040					ND	
90 Styrene	104		11.065					ND	
129 Cyclohexanol	57		11.246					ND	
91 Bromoform	173		11.247					ND	
92 2-Chlorobenzotrifluoride	180		11.302					ND	
93 Isopropylbenzene	105		11.412					ND	
94 Cyclohexanone	55		11.493					ND	
96 1,1,2,2-Tetrachloroethane	83		11.716					ND	
95 Bromobenzene	156		11.728					ND	
97 trans-1,4-Dichloro-2-buten	53		11.752					ND	
98 1,2,3-Trichloropropane	110		11.777					ND	
99 N-Propylbenzene	120		11.825					ND	
100 2-Chlorotoluene	126		11.910					ND	
101 3-Chlorotoluene	126		11.977					ND	
102 1,3,5-Trimethylbenzene	105		12.008					ND	
103 4-Chlorotoluene	126		12.038					ND	
104 tert-Butylbenzene	119		12.324					ND	
105 Pentachloroethane	167		12.351					ND	
106 1,2,4-Trimethylbenzene	105		12.385					ND	
107 1,2-dichloro-4-(trifluorom	214		12.421					ND	
108 sec-Butylbenzene	105		12.549					ND	
109 1,3-Dichlorobenzene	146		12.671					ND	
110 4-Isopropyltoluene	119		12.707					ND	
111 1,4-Dichlorobenzene	146		12.774					ND	
113 2,4-Dichloro-1-(triflourom	214		12.792					ND	
112 1,2,3-Trimethylbenzene	105		12.795					ND	
114 2,5-Dichlorobenzotrifluori	214		12.835					ND	
115 Benzyl chloride	91		12.881					ND	
116 n-Butylbenzene	91		13.115					ND	
117 1,2-Dichlorobenzene	146		13.127					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.924					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.058					ND	
120 1,3,5-Trichlorobenzene	180		14.109					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.478					ND	
122 1,2,4-Trichlorobenzene	180		14.745					ND	
123 Hexachlorobutadiene	225		14.891					ND	
124 Naphthalene	128		15.013					ND	
125 1,2,3-Trichlorobenzene	180		15.232					ND	
126 2,4,5-Trichlorotoluene	159		16.011					ND	
127 2,3,6-Trichlorotoluene	159		16.108					ND	
128 2-Methylnaphthalene	142	16.153	16.153	0.000	1	439		NC	
145 2,3-Dichlorotoluene	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
149 Isopropyl ether TIC	1		0.000						ND
143 2,5-Dichlorotoluene	1		0.000						ND
150 Tert-butyl ethyl ether (TI	1		0.000						ND
S 131 Xylenes, Total	106		1.000						ND
S 130 1,2-Dichloroethene, Total	96		1.000						ND
S 132 1,3-Dichloropropene, Total	1		0.000						ND
T 135 Mesityl oxide TIC	83		0.000						ND
T 134 Methyl n-amyl ketone TIC	43		0.000						ND
T 133 Tetrahydrofuran TIC	42		0.000						ND

**QC Flag Legend**

Processing Flags

NC - Not Calibrated

**Reagents:**

VOA8260INT\_00042

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR\_00042

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930005.D

Injection Date: 30-Sep-2015 12:44:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: MB

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

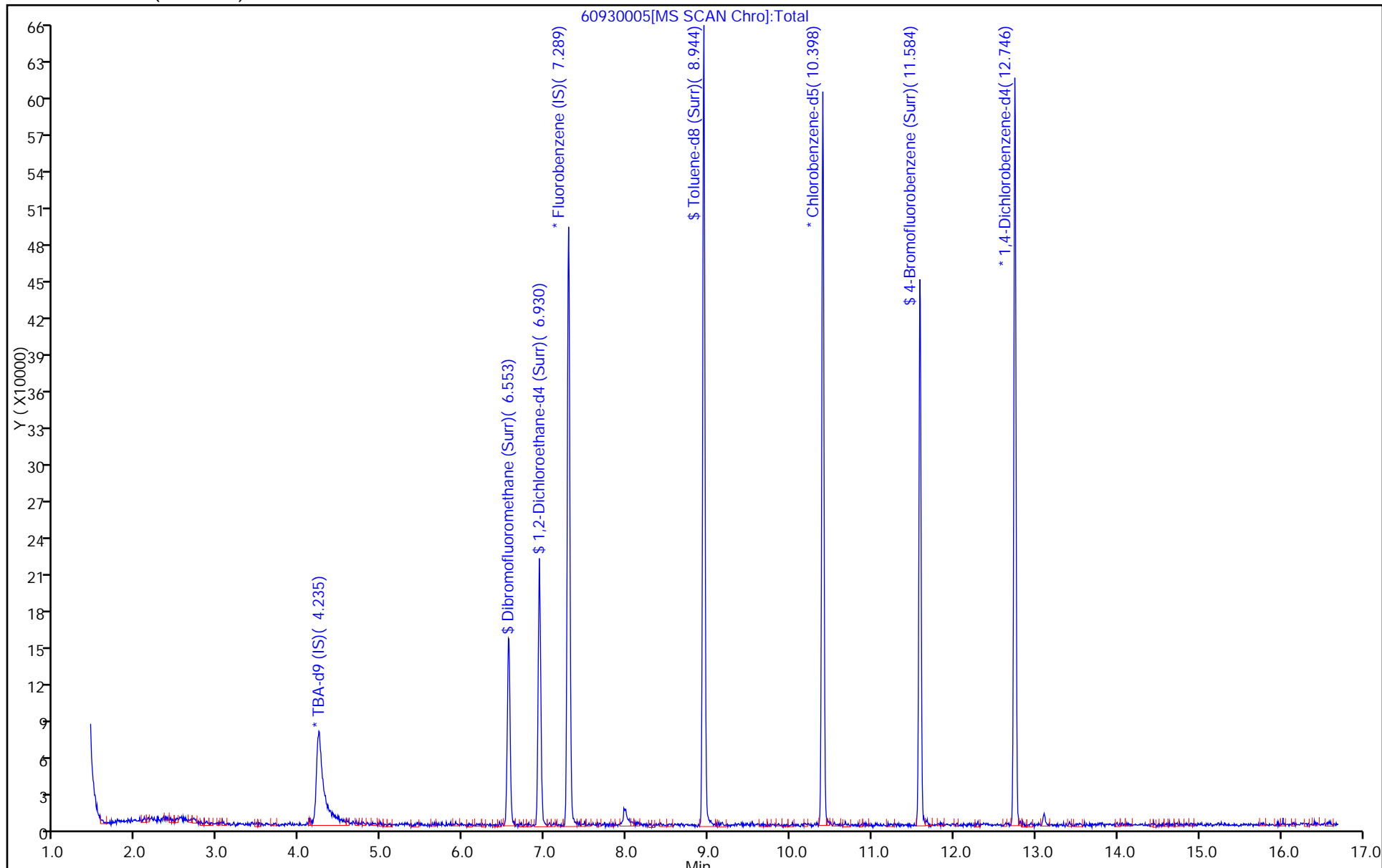
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-155089/8  
 Matrix: Water Lab File ID: 60928008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 14:21  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.2		1.0	0.28
75-01-4	Vinyl chloride	10.4		1.0	0.23
74-83-9	Bromomethane	8.81		1.0	0.31
75-00-3	Chloroethane	9.45		1.0	0.21
75-35-4	1,1-Dichloroethene	7.60		1.0	0.30
67-64-1	Acetone	16.9		5.0	2.5
75-15-0	Carbon disulfide	8.01		1.0	0.21
75-09-2	Methylene Chloride	8.09		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.09		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.15		1.0	0.18
75-34-3	1,1-Dichloroethane	8.71		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.55		1.0	0.24
74-97-5	Bromochloromethane	9.18		1.0	0.18
78-93-3	2-Butanone (MEK)	21.9		5.0	0.55
67-66-3	Chloroform	8.72		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.27		1.0	0.29
56-23-5	Carbon tetrachloride	8.45		1.0	0.14
71-43-2	Benzene	8.93		1.0	0.11
107-06-2	1,2-Dichloroethane	9.25		1.0	0.21
79-01-6	Trichloroethene	10.1		1.0	0.14
78-87-5	1,2-Dichloropropane	10.2		1.0	0.095
75-27-4	Bromodichloromethane	8.87		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.69		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	21.5		5.0	0.53
108-88-3	Toluene	9.38		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.31		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.86		1.0	0.20
127-18-4	Tetrachloroethene	10.3		1.0	0.15
591-78-6	2-Hexanone	23.5		5.0	0.16
124-48-1	Dibromochloromethane	10.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.0		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.4		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-155089/8  
 Matrix: Water Lab File ID: 60928008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 14:21  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.1		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.95		1.0	0.20
107-13-1	Acrylonitrile	104		20	0.55
123-91-1	1,4-Dioxane	187	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928008.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 28-Sep-2015 14:21:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008724-008  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 14:43:45 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 28-Sep-2015 14:43:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.242	4.241	0.001	91	218073	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.284	7.283	0.001	98	503917	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.000	91	118468	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	96	190158	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.548	6.547	0.001	93	110967	50.0	47.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.930	0.001	75	183832	50.0	49.1	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	95	472255	50.0	50.5	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	83	198567	50.0	47.9	
11 Dichlorodifluoromethane	85	1.608	1.613	-0.005	99	153228	50.0	43.9	
12 Chloromethane	50	1.766	1.765	0.001	99	167723	50.0	55.8	
13 Vinyl chloride	62	1.900	1.905	-0.005	99	168119	50.0	51.9	
14 Butadiene	39	1.942	1.942	0.000	95	179238	50.0	59.0	
15 Bromomethane	94	2.253	2.240	0.013	92	77052	50.0	44.1	
16 Chloroethane	64	2.387	2.380	0.007	100	104458	50.0	47.2	
17 Dichlorofluoromethane	67	2.660	2.654	0.006	97	237750	50.0	46.2	
18 Trichlorofluoromethane	101	2.679	2.684	-0.005	88	181214	50.0	44.2	
20 Ethyl ether	59	3.044	3.037	0.007	92	122574	50.0	42.1	
21 Acrolein	56	3.226	3.213	0.013	99	37670	150.0	118.7	
22 1,1-Dichloroethene	96	3.348	3.341	0.007	95	96395	50.0	38.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.402	0.013	95	111818	50.0	41.8	
24 Acetone	43	3.433	3.426	0.007	84	75385	100.0	84.6	
25 Iodomethane	142	3.536	3.530	0.006	99	144767	50.0	42.5	
26 Carbon disulfide	76	3.634	3.633	0.001	100	263307	50.0	40.1	
29 3-Chloro-1-propene	76	3.920	3.913	0.007	87	52693	50.0	36.8	
30 Methyl acetate	43	3.932	3.919	0.013	98	560717	250.0	268.2	
31 Methylene Chloride	84	4.133	4.126	0.007	98	145463	50.0	40.4	
32 2-Methyl-2-propanol	59	4.388	4.387	0.001	92	122089	500.0	497.5	
33 Acrylonitrile	53	4.510	4.503	0.007	99	547654	500.0	519.7	
34 trans-1,2-Dichloroethene	96	4.571	4.558	0.013	93	118391	50.0	40.4	
35 Methyl tert-butyl ether	73	4.571	4.564	0.007	97	357327	50.0	40.7	
36 Hexane	57	4.990	4.984	0.006	95	198753	50.0	50.1	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.197	5.190	0.007	97	228328	50.0	43.6	
38 Vinyl acetate	43	5.240	5.239	0.001	98	230329	50.0	54.4	
43 cis-1,2-Dichloroethene	96	5.939	5.933	0.006	84	136046	50.0	42.7	
42 2,2-Dichloropropane	77	5.939	5.939	0.000	59	102563	50.0	38.7	
44 2-Butanone (MEK)	43	5.952	5.951	0.001	70	133089	100.0	109.4	
48 Chlorobromomethane	128	6.231	6.225	0.006	94	58712	50.0	45.9	
49 Tetrahydrofuran	42	6.244	6.243	0.001	92	92373	100.0	112.7	
50 Chloroform	83	6.377	6.371	0.006	97	226855	50.0	43.6	
51 1,1,1-Trichloroethane	97	6.536	6.535	0.001	97	158859	50.0	41.3	
52 Cyclohexane	56	6.621	6.620	0.001	94	240840	50.0	48.9	
53 Carbon tetrachloride	117	6.718	6.717	0.001	96	114720	50.0	42.3	
54 1,1-Dichloropropene	75	6.724	6.730	-0.006	94	178060	50.0	43.1	
55 Isobutyl alcohol	41	6.907	6.900	0.007	88	111747	1250.0	1532.8	
56 Benzene	78	6.943	6.942	0.001	98	524148	50.0	44.6	
57 1,2-Dichloroethane	62	7.016	7.015	0.001	97	218785	50.0	46.3	
59 n-Heptane	43	7.308	7.307	0.001	92	185766	50.0	58.2	
61 Trichloroethene	130	7.679	7.679	0.000	95	124173	50.0	50.7	
63 Methylcyclohexane	83	7.923	7.922	0.001	94	215759	50.0	43.4	
64 1,2-Dichloropropane	63	7.947	7.952	-0.005	84	142602	50.0	50.8	
67 Dibromomethane	93	8.038	8.038	0.000	94	79452	50.0	46.6	
65 1,4-Dioxane	88	8.032	8.038	-0.006	37	25925	1000.0	936.1	M
68 Dichlorobromomethane	83	8.227	8.232	-0.005	97	142020	50.0	44.4	
71 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	90	170374	50.0	48.5	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	98	261857	100.0	107.5	
73 Toluene	91	9.011	9.011	0.000	98	573199	50.0	46.9	
74 trans-1,3-Dichloropropene	75	9.255	9.254	0.001	99	144424	50.0	46.5	
75 Ethyl methacrylate	69	9.316	9.315	0.001	90	177333	50.0	53.8	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	94	124629	50.0	49.3	
77 Tetrachloroethene	164	9.529	9.528	0.001	94	107616	50.0	51.6	
78 1,3-Dichloropropane	76	9.608	9.607	0.001	95	235235	50.0	50.4	
79 2-Hexanone	43	9.662	9.656	0.006	98	187561	100.0	117.3	
81 Chlorodibromomethane	129	9.827	9.820	0.007	90	88407	50.0	51.2	
82 Ethylene Dibromide	107	9.942	9.936	0.006	99	114807	50.0	51.3	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	92	189430	50.0	48.4	
84 Chlorobenzene	112	10.429	10.428	0.001	91	381751	50.0	50.8	
85 4-Chlorobenzotrifluoride	180	10.484	10.483	0.001	97	176567	50.0	48.7	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	88	103062	50.0	50.1	
87 Ethylbenzene	106	10.526	10.526	0.000	99	213924	50.0	50.5	
88 m-Xylene & p-Xylene	106	10.660	10.659	0.001	99	270926	50.0	51.5	
89 o-Xylene	106	11.043	11.037	0.006	97	266151	50.0	50.6	
90 Styrene	104	11.062	11.061	0.001	94	427896	50.0	52.9	
91 Bromoform	173	11.244	11.244	0.000	94	51108	50.0	55.5	
92 2-Chlorobenzotrifluoride	180	11.305	11.304	0.001	96	191762	50.0	47.8	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	666274	50.0	52.9	
96 1,1,2,2-Tetrachloroethane	83	11.713	11.712	0.001	97	168277	50.0	49.7	
95 Bromobenzene	156	11.725	11.724	0.001	98	163997	50.0	53.6	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.748	0.007	71	44266	50.0	45.7	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	58429	50.0	50.3	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	178599	50.0	50.7	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	157146	50.0	53.8	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	139483	50.0	45.4	
102 1,3,5-Trimethylbenzene	105	12.011	12.010	0.001	94	575158	50.0	50.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.035	12.040	-0.005	99	164757	50.0	53.4	
104 tert-Butylbenzene	119	12.327	12.326	0.001	92	453744	50.0	50.2	
106 1,2,4-Trimethylbenzene	105	12.382	12.381	0.001	98	580885	50.0	49.6	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	155557	50.0	46.9	
108 sec-Butylbenzene	105	12.546	12.551	-0.005	96	690861	50.0	51.2	
109 1,3-Dichlorobenzene	146	12.668	12.667	0.001	95	294716	50.0	49.4	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	95	561743	50.0	49.6	
111 1,4-Dichlorobenzene	146	12.771	12.770	0.001	91	310765	50.0	50.9	
113 2,4-Dichloro-1-(trifluorom	214	12.795	12.789	0.006	95	143774	50.0	43.6	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.831	0.001	98	174670	50.0	47.4	
116 n-Butylbenzene	91	13.112	13.111	0.001	98	543789	50.0	48.1	
117 1,2-Dichlorobenzene	146	13.124	13.123	0.001	93	291176	50.0	48.3	
118 1,2-Dibromo-3-Chloropropan	75	13.921	13.914	0.007	70	23323	50.0	42.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.060	0.001	98	690871	150.0	131.7	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	511558	100.0	88.4	
122 1,2,4-Trichlorobenzene	180	14.742	14.741	0.001	93	232283	50.0	49.7	
123 Hexachlorobutadiene	225	14.888	14.894	-0.006	95	99407	50.0	54.0	
124 Naphthalene	128	15.004	15.009	-0.005	98	521743	50.0	55.3	
125 1,2,3-Trichlorobenzene	180	15.229	15.228	0.001	93	213599	50.0	48.9	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	128483	50.0	43.8	
127 2,3,6-Trichlorotoluene	159	16.105	16.110	-0.005	95	125696	50.0	45.1	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	102.1	
S 130 1,2-Dichloroethene, Total	96				0		100.0	83.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.0	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00144	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00005	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928008.D

Injection Date: 28-Sep-2015 14:21:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

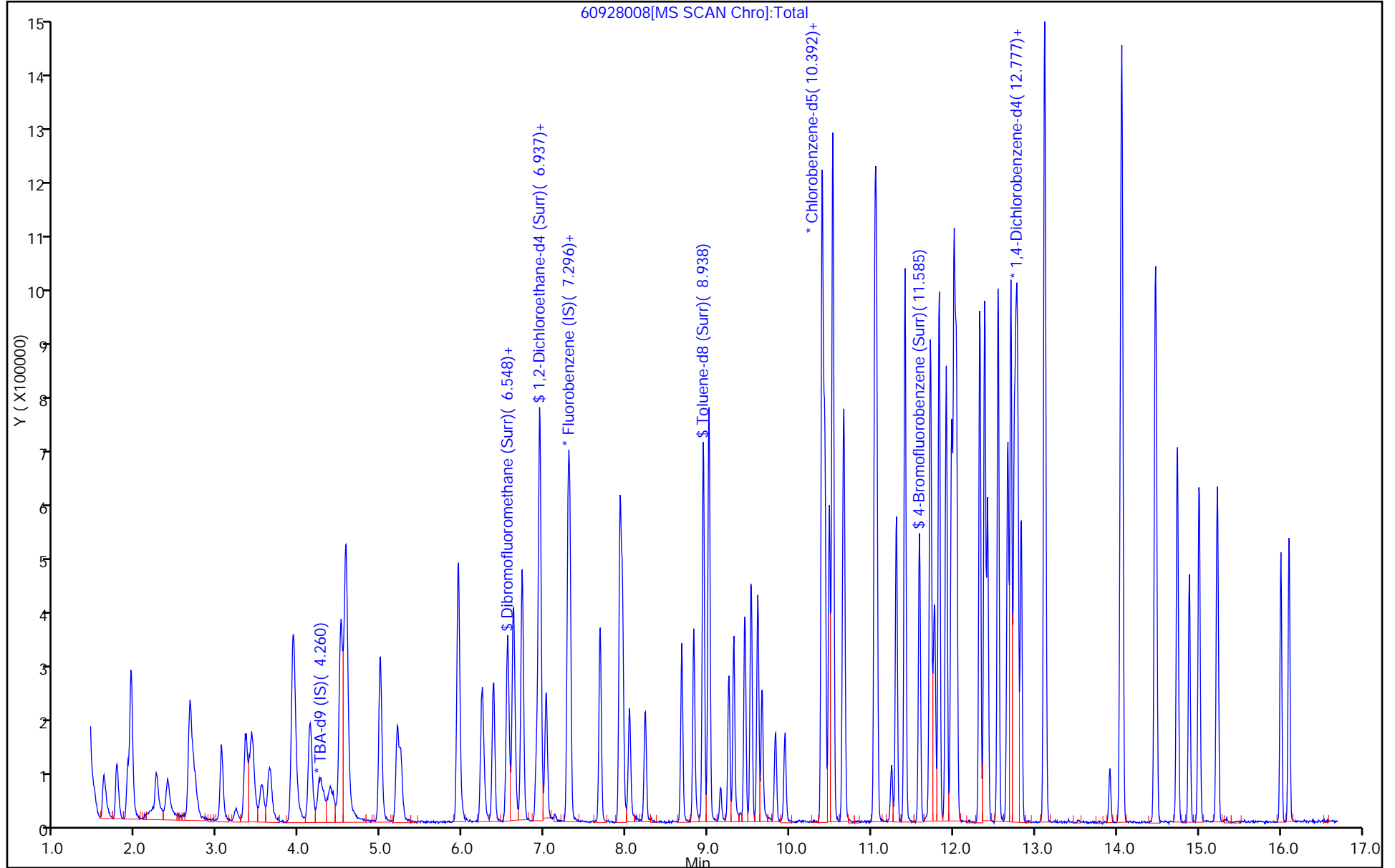
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



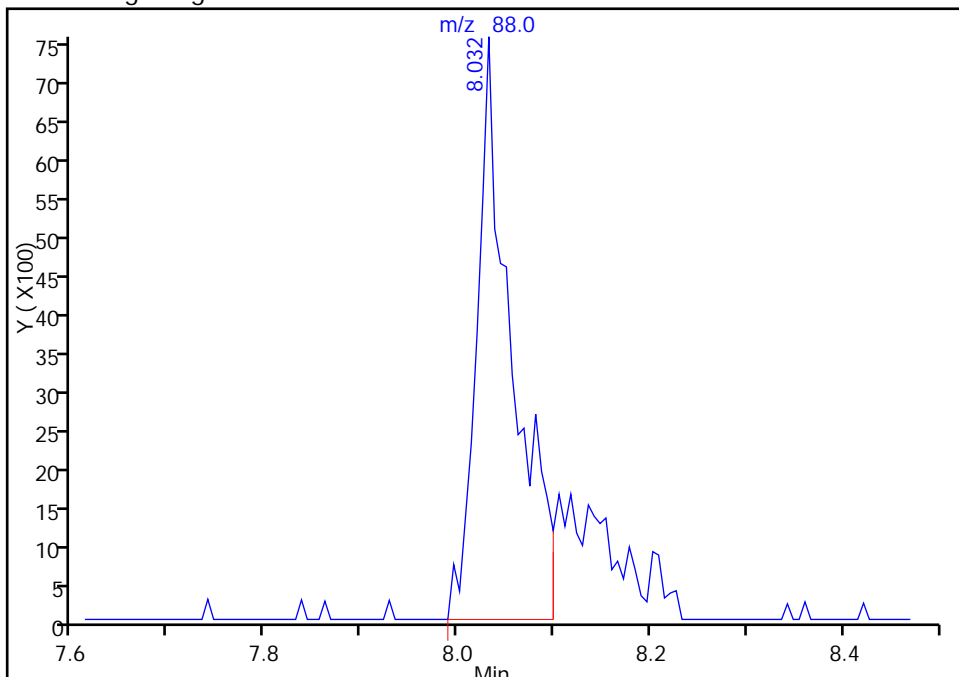
TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928008.D  
Injection Date: 28-Sep-2015 14:21:30 Instrument ID: CHHP6  
Lims ID: LCS  
Client ID:  
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 8  
Purge Vol: 5.000 mL Dil. Factor: 1.0000  
Method: MSVOA\_LL\_CHHP6 Limit Group: VOA 8260C ICAL  
Column: DB-624 (0.18 mm) Detector: MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

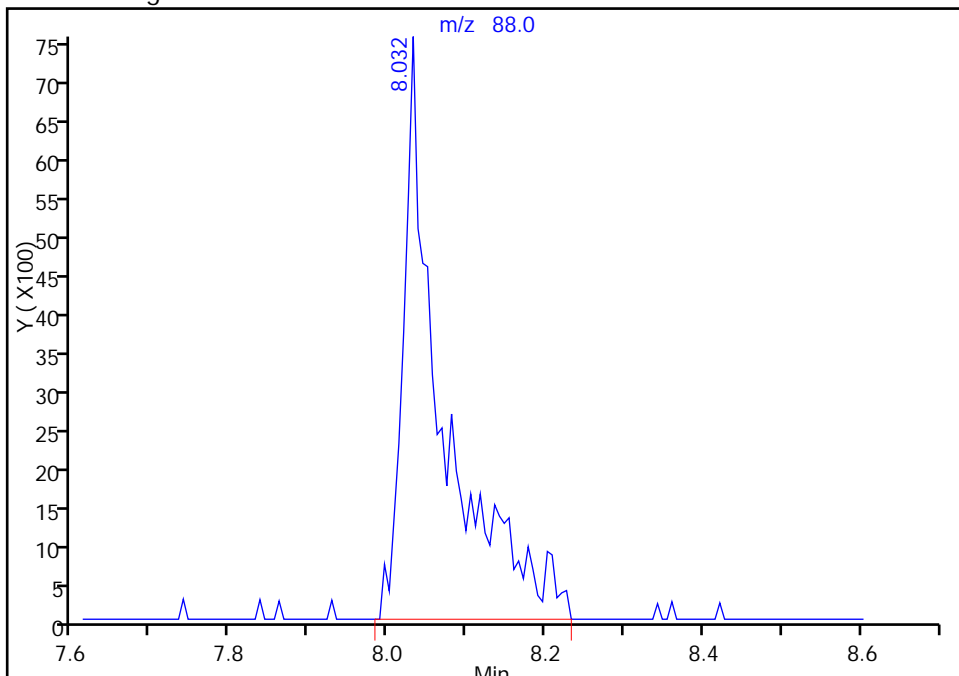
RT: 8.03  
Area: 19152  
Amount: 691.5661  
Amount Units: ng

Processing Integration Results



RT: 8.03  
Area: 25925  
Amount: 936.1347  
Amount Units: ng

Manual Integration Results



Reviewer: fergusond, 28-Sep-2015 14:43:45  
Audit Action: Manually Integrated  
Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-155230/8  
 Matrix: Water Lab File ID: 60929008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 14:18  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.8		1.0	0.28
75-01-4	Vinyl chloride	11.0		1.0	0.23
74-83-9	Bromomethane	8.98		1.0	0.31
75-00-3	Chloroethane	10.2		1.0	0.21
75-35-4	1,1-Dichloroethene	8.12		1.0	0.30
67-64-1	Acetone	22.2		5.0	2.5
75-15-0	Carbon disulfide	7.88		1.0	0.21
75-09-2	Methylene Chloride	8.48		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.49		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.25		1.0	0.18
75-34-3	1,1-Dichloroethane	9.22		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.19		1.0	0.24
74-97-5	Bromochloromethane	9.60		1.0	0.18
78-93-3	2-Butanone (MEK)	22.3		5.0	0.55
67-66-3	Chloroform	8.88		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.29		1.0	0.29
56-23-5	Carbon tetrachloride	9.19		1.0	0.14
71-43-2	Benzene	9.41		1.0	0.11
107-06-2	1,2-Dichloroethane	9.62		1.0	0.21
79-01-6	Trichloroethene	10.7		1.0	0.14
78-87-5	1,2-Dichloropropane	10.7		1.0	0.095
75-27-4	Bromodichloromethane	9.04		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.54		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	22.4		5.0	0.53
108-88-3	Toluene	10.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.51		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	11.0		1.0	0.15
591-78-6	2-Hexanone	25.6		5.0	0.16
124-48-1	Dibromochloromethane	10.5		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.6		1.0	0.18
108-90-7	Chlorobenzene	11.0		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.9		1.0	0.28
100-41-4	Ethylbenzene	11.1		1.0	0.23
1330-20-7	Xylenes, Total	22.1		3.0	0.49
100-42-5	Styrene	11.8		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-155230/8  
 Matrix: Water Lab File ID: 60929008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/29/2015 14:18  
 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.: 155230 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	11.6		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.8		1.0	0.20
107-13-1	Acrylonitrile	108		20	0.55
123-91-1	1,4-Dioxane	219		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929008.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 29-Sep-2015 14:18:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008741-008  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 29-Sep-2015 15:19:53 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: fergusond

Date: 29-Sep-2015 15:20:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.262	4.242	0.020	88	186647	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.283	0.009	98	465928	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.394	10.398	-0.004	90	102227	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.746	0.003	94	183792	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.556	6.553	0.003	93	106400	50.0	49.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.931	0.002	72	182798	50.0	52.8	
\$ 7 Toluene-d8 (Surr)	98	8.940	8.938	0.002	94	444397	50.0	55.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.584	0.003	84	180062	50.0	50.3	
11 Dichlorodifluoromethane	85	1.610	1.608	0.002	99	157357	50.0	48.8	
12 Chloromethane	50	1.762	1.766	-0.004	100	163630	50.0	58.8	
13 Vinyl chloride	62	1.896	1.900	-0.004	98	165377	50.0	55.2	
14 Butadiene	39	1.938	1.936	0.002	97	179833	50.0	64.0	
15 Bromomethane	94	2.249	2.246	0.003	92	72621	50.0	44.9	
16 Chloroethane	64	2.389	2.380	0.009	99	104132	50.0	50.9	
17 Dichlorofluoromethane	67	2.662	2.654	0.008	97	230710	50.0	48.5	
18 Trichlorofluoromethane	101	2.681	2.690	-0.009	97	188257	50.0	49.6	
20 Ethyl ether	59	3.052	3.043	0.009	94	119355	50.0	44.4	
21 Acrolein	56	3.216	3.214	0.002	98	32843	150.0	112.0	
22 1,1-Dichloroethene	96	3.338	3.335	0.003	95	95166	50.0	40.6	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.408	0.003	94	109292	50.0	44.1	
24 Acetone	43	3.435	3.420	0.015	97	91403	100.0	110.9	
25 Iodomethane	142	3.532	3.530	0.002	99	143689	50.0	45.6	
26 Carbon disulfide	76	3.630	3.627	0.003	100	239444	50.0	39.4	
29 3-Chloro-1-propene	76	3.922	3.913	0.009	87	52471	50.0	39.7	
30 Methyl acetate	43	3.934	3.919	0.015	99	526356	250.0	272.3	
31 Methylene Chloride	84	4.128	4.120	0.008	97	140243	50.0	42.4	
32 2-Methyl-2-propanol	59	4.390	4.376	0.014	89	113245	500.0	539.2	
33 Acrylonitrile	53	4.506	4.503	0.003	99	523787	500.0	537.6	
34 trans-1,2-Dichloroethene	96	4.566	4.558	0.008	78	114902	50.0	42.5	
35 Methyl tert-butyl ether	73	4.573	4.570	0.003	97	334491	50.0	41.2	
36 Hexane	57	4.986	4.984	0.002	94	194020	50.0	52.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.199	5.191	0.008	98	223479	50.0	46.1	
38 Vinyl acetate	43	5.242	5.239	0.003	98	201631	50.0	51.5	
43 cis-1,2-Dichloroethene	96	5.941	5.939	0.002	85	120487	50.0	40.9	
42 2,2-Dichloropropane	77	5.941	5.939	0.002	58	91266	50.0	37.3	
44 2-Butanone (MEK)	43	5.947	5.945	0.002	63	125712	100.0	111.7	
48 Chlorobromomethane	128	6.227	6.231	-0.004	93	56730	50.0	48.0	
49 Tetrahydrofuran	42	6.252	6.249	0.003	90	84947	100.0	112.1	
50 Chloroform	83	6.373	6.371	0.002	95	213631	50.0	44.4	
51 1,1,1-Trichloroethane	97	6.537	6.541	-0.004	96	147335	50.0	41.5	
52 Cyclohexane	56	6.617	6.614	0.003	95	228446	50.0	50.2	
53 Carbon tetrachloride	117	6.714	6.712	0.002	87	115316	50.0	45.9	
54 1,1-Dichloropropene	75	6.726	6.724	0.002	90	173256	50.0	45.3	
55 Isobutyl alcohol	41	6.909	6.894	0.015	89	115015	1250.0	1706.2	
56 Benzene	78	6.945	6.937	0.008	98	510998	50.0	47.1	
57 1,2-Dichloroethane	62	7.024	7.016	0.008	98	210447	50.0	48.1	
59 n-Heptane	43	7.310	7.308	0.002	92	181362	50.0	61.4	
61 Trichloroethene	130	7.675	7.679	-0.004	96	121288	50.0	53.6	
63 Methylcyclohexane	83	7.925	7.922	0.003	93	207170	50.0	45.1	
64 1,2-Dichloropropane	63	7.949	7.953	-0.004	83	138289	50.0	53.3	
67 Dibromomethane	93	8.034	8.032	0.002	93	76369	50.0	48.5	
65 1,4-Dioxane	88	8.028	8.032	-0.004	37	28021	1000.0	1094.3	
68 Dichlorobromomethane	83	8.229	8.226	0.003	97	133806	50.0	45.2	
71 cis-1,3-Dichloropropene	75	8.679	8.677	0.002	90	155162	50.0	47.7	
72 4-Methyl-2-pentanone (MIBK)	43	8.825	8.823	0.002	97	235593	100.0	112.1	
73 Toluene	91	9.013	9.011	0.002	98	552279	50.0	52.4	
74 trans-1,3-Dichloropropene	75	9.257	9.254	0.003	99	127364	50.0	47.6	
75 Ethyl methacrylate	69	9.318	9.315	0.003	91	156158	50.0	54.9	
76 1,1,2-Trichloroethane	97	9.451	9.449	0.002	96	110105	50.0	50.5	
77 Tetrachloroethene	164	9.524	9.522	0.002	96	99151	50.0	55.1	
78 1,3-Dichloropropane	76	9.610	9.607	0.003	96	209425	50.0	52.0	
79 2-Hexanone	43	9.658	9.662	-0.004	97	176423	100.0	127.8	
81 Chlorodibromomethane	129	9.823	9.826	-0.003	91	78065	50.0	52.4	
82 Ethylene Dibromide	107	9.938	9.942	-0.004	100	102463	50.0	53.1	
83 3-Chlorobenzotrifluoride	180	10.394	10.398	-0.004	91	183723	50.0	54.4	
84 Chlorobenzene	112	10.425	10.429	-0.004	91	355885	50.0	54.9	
85 4-Chlorobenzotrifluoride	180	10.486	10.483	0.003	97	174373	50.0	55.7	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.520	0.002	86	96938	50.0	54.6	
87 Ethylbenzene	106	10.528	10.526	0.002	99	202978	50.0	55.5	
88 m-Xylene & p-Xylene	106	10.662	10.660	0.002	99	253080	50.0	55.8	
89 o-Xylene	106	11.039	11.037	0.002	97	248123	50.0	54.6	
90 Styrene	104	11.064	11.061	0.003	94	410521	50.0	58.9	
91 Bromoform	173	11.246	11.244	0.002	94	46185	50.0	58.1	
92 2-Chlorobenzotrifluoride	180	11.307	11.305	0.002	96	185015	50.0	53.5	
93 Isopropylbenzene	105	11.410	11.408	0.002	98	636287	50.0	58.6	
96 1,1,2,2-Tetrachloroethane	83	11.715	11.712	0.003	95	157007	50.0	53.8	
95 Bromobenzene	156	11.727	11.724	0.003	98	154812	50.0	52.4	
97 trans-1,4-Dichloro-2-buten	53	11.751	11.755	-0.004	71	43135	50.0	46.0	
98 1,2,3-Trichloropropane	110	11.775	11.773	0.002	86	57184	50.0	50.9	
99 N-Propylbenzene	120	11.824	11.828	-0.004	99	173530	50.0	51.0	
100 2-Chlorotoluene	126	11.915	11.913	0.002	94	146325	50.0	51.8	
101 3-Chlorotoluene	126	11.982	11.980	0.002	96	148582	50.0	50.1	
102 1,3,5-Trimethylbenzene	105	12.013	12.010	0.003	93	563047	50.0	50.9	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.037	12.041	-0.004	100	162887	50.0	54.6	
104 tert-Butylbenzene	119	12.323	12.327	-0.004	91	429690	50.0	49.2	
106 1,2,4-Trimethylbenzene	105	12.384	12.381	0.003	99	564994	50.0	49.9	
107 1,2-dichloro-4-(trifluorom	214	12.420	12.418	0.002	98	159991	50.0	49.9	
108 sec-Butylbenzene	105	12.548	12.546	0.002	96	681337	50.0	52.2	
109 1,3-Dichlorobenzene	146	12.670	12.667	0.003	95	292962	50.0	50.8	
110 4-Isopropyltoluene	119	12.706	12.704	0.002	95	556588	50.0	50.8	
111 1,4-Dichlorobenzene	146	12.773	12.771	0.002	92	309005	50.0	52.4	
113 2,4-Dichloro-1-(trifluorom	214	12.791	12.789	0.002	93	151875	50.0	47.6	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.832	0.002	98	179619	50.0	50.4	
116 n-Butylbenzene	91	13.114	13.111	0.003	98	529831	50.0	48.5	
117 1,2-Dichlorobenzene	146	13.126	13.130	-0.004	92	299578	50.0	51.4	
118 1,2-Dibromo-3-Chloropropan	75	13.911	13.914	-0.003	68	22058	50.0	41.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.060	0.003	99	696404	150.0	137.3	
121 2,3- & 3,4- Dichlorotoluen	125	14.476	14.474	0.002	99	498709	100.0	89.1	
122 1,2,4-Trichlorobenzene	180	14.744	14.742	0.002	94	218419	50.0	48.4	
123 Hexachlorobutadiene	225	14.890	14.888	0.002	95	91186	50.0	51.3	
124 Naphthalene	128	15.006	15.009	-0.003	98	451554	50.0	49.5	
125 1,2,3-Trichlorobenzene	180	15.231	15.235	-0.003	95	193365	50.0	45.8	
126 2,4,5-Trichlorotoluene	159	16.009	16.007	0.002	0	113309	50.0	39.9	
127 2,3,6-Trichlorotoluene	159	16.107	16.111	-0.004	94	118486	50.0	44.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	110.4	
S 130 1,2-Dichloroethene, Total	96				0		100.0	83.4	
S 132 1,3-Dichloropropene, Total	1				0		100.0	95.3	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00144	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150929-8741.b\60929008.D

Injection Date: 29-Sep-2015 14:18:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

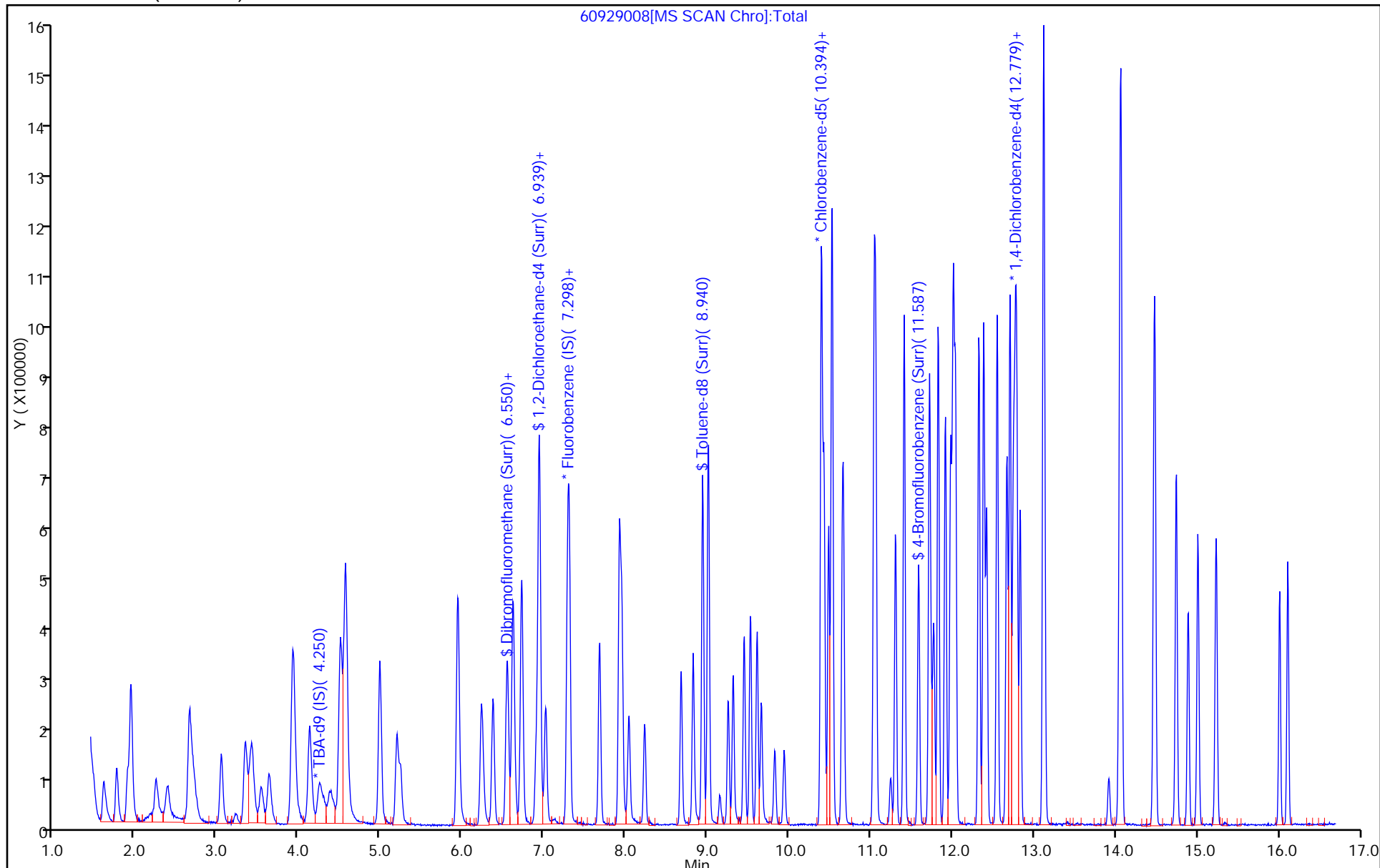
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-155405/8  
 Matrix: Water Lab File ID: 60930008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 14:13  
 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.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.7		1.0	0.28
75-01-4	Vinyl chloride	10.1		1.0	0.23
74-83-9	Bromomethane	9.18		1.0	0.31
75-00-3	Chloroethane	9.96		1.0	0.21
75-35-4	1,1-Dichloroethene	7.85		1.0	0.30
67-64-1	Acetone	19.4		5.0	2.5
75-15-0	Carbon disulfide	7.27		1.0	0.21
75-09-2	Methylene Chloride	8.16		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	7.84		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.02		1.0	0.18
75-34-3	1,1-Dichloroethane	8.95		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	8.19		1.0	0.24
74-97-5	Bromochloromethane	9.14		1.0	0.18
78-93-3	2-Butanone (MEK)	22.2		5.0	0.55
67-66-3	Chloroform	8.68		1.0	0.17
71-55-6	1,1,1-Trichloroethane	7.88		1.0	0.29
56-23-5	Carbon tetrachloride	8.29		1.0	0.14
71-43-2	Benzene	9.14		1.0	0.11
107-06-2	1,2-Dichloroethane	9.24		1.0	0.21
79-01-6	Trichloroethene	9.79		1.0	0.14
78-87-5	1,2-Dichloropropane	10.5		1.0	0.095
75-27-4	Bromodichloromethane	8.68		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.16		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.4		5.0	0.53
108-88-3	Toluene	9.43		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.19		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.4		1.0	0.20
127-18-4	Tetrachloroethene	9.98		1.0	0.15
591-78-6	2-Hexanone	21.5		5.0	0.16
124-48-1	Dibromochloromethane	9.76		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	10.2		1.0	0.23
1330-20-7	Xylenes, Total	20.3		3.0	0.49
100-42-5	Styrene	11.2		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 180-155405/8  
 Matrix: Water Lab File ID: 60930008.D  
 Analysis Method: 8260C Date Collected: \_\_\_\_\_  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/30/2015 14:13  
 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.: 155405 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.8		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.1		1.0	0.20
107-13-1	Acrylonitrile	108		20	0.55
123-91-1	1,4-Dioxane	207		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930008.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 30-Sep-2015 14:13:30 ALS Bottle#: 8 Worklist Smp#: 8  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: LCS  
 Misc. Info.: 180-0008760-008  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 30-Sep-2015 14:32:02 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK004

First Level Reviewer: fergusond

Date: 30-Sep-2015 14:32:02

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.230	0.029	90	177519	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.290	-0.001	97	454904	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.398	0.000	90	104167	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.752	12.747	0.005	96	184271	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.553	6.557	-0.004	93	95330	50.0	45.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.928	0.002	73	162110	50.0	48.0	
\$ 7 Toluene-d8 (Surr)	98	8.944	8.942	0.002	94	402259	50.0	49.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.588	-0.004	85	163311	50.0	44.8	
11 Dichlorodifluoromethane	85	1.613	1.605	0.008	99	137036	50.0	43.5	
12 Chloromethane	50	1.759	1.763	-0.004	99	158917	50.0	58.5	
13 Vinyl chloride	62	1.905	1.897	0.008	98	147716	50.0	50.5	
14 Butadiene	39	1.936	1.934	0.002	96	165291	50.0	60.3	
15 Bromomethane	94	2.234	2.238	-0.004	92	72498	50.0	45.9	
16 Chloroethane	64	2.380	2.378	0.002	100	99426	50.0	49.8	
17 Dichlorofluoromethane	67	2.660	2.651	0.009	98	218528	50.0	47.0	
18 Trichlorofluoromethane	101	2.678	2.694	-0.016	98	172111	50.0	46.5	
20 Ethyl ether	59	3.049	3.041	0.008	93	119671	50.0	45.6	
21 Acrolein	56	3.237	3.217	0.020	94	33851	150.0	118.2	
22 1,1-Dichloroethene	96	3.341	3.333	0.008	96	89896	50.0	39.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.406	0.008	94	97973	50.0	40.5	
24 Acetone	43	3.432	3.430	0.002	99	78180	100.0	97.1	
25 Iodomethane	142	3.542	3.533	0.009	99	134431	50.0	43.7	
26 Carbon disulfide	76	3.639	3.631	0.008	100	215664	50.0	36.3	
29 3-Chloro-1-propene	76	3.913	3.911	0.002	70	48649	50.0	37.7	
30 Methyl acetate	43	3.925	3.923	0.002	98	502712	250.0	266.4	
31 Methylene Chloride	84	4.132	4.124	0.008	97	132322	50.0	40.8	
32 2-Methyl-2-propanol	59	4.387	4.367	0.020	95	111973	500.0	560.5	
33 Acrylonitrile	53	4.509	4.501	0.008	100	511984	500.0	538.2	
34 trans-1,2-Dichloroethene	96	4.564	4.562	0.002	92	103529	50.0	39.2	
35 Methyl tert-butyl ether	73	4.570	4.568	0.002	97	317715	50.0	40.1	
36 Hexane	57	4.983	4.987	-0.004	93	165179	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	5.202	5.194	0.008	97	211595	50.0	44.7	
38 Vinyl acetate	43	5.245	5.237	0.008	98	214919	50.0	56.3	
43 cis-1,2-Dichloroethene	96	5.945	5.936	0.009	85	117737	50.0	41.0	
44 2-Butanone (MEK)	43	5.951	5.943	0.009	67	122118	100.0	111.2	
42 2,2-Dichloropropane	77	5.945	5.943	0.003	57	89278	50.0	37.3	
48 Chlorobromomethane	128	6.224	6.228	-0.004	94	52787	50.0	45.7	
49 Tetrahydrofuran	42	6.243	6.247	-0.004	89	76686	100.0	103.7	
50 Chloroform	83	6.370	6.374	-0.004	95	203699	50.0	43.4	
51 1,1,1-Trichloroethane	97	6.541	6.539	0.002	97	136745	50.0	39.4	
52 Cyclohexane	56	6.620	6.618	0.002	93	199720	50.0	44.9	
53 Carbon tetrachloride	117	6.717	6.709	0.008	90	101563	50.0	41.4	
54 1,1-Dichloropropene	75	6.729	6.727	0.002	92	156104	50.0	41.8	
55 Isobutyl alcohol	41	6.900	6.898	0.002	89	116749	1250.0	1773.9	
56 Benzene	78	6.942	6.940	0.002	98	484524	50.0	45.7	
57 1,2-Dichloroethane	62	7.015	7.013	0.002	97	197198	50.0	46.2	
59 n-Heptane	43	7.313	7.305	0.008	92	159056	50.0	55.2	
61 Trichloroethene	130	7.678	7.676	0.002	96	108179	50.0	48.9	
63 Methylcyclohexane	83	7.922	7.920	0.002	94	180923	50.0	40.3	
64 1,2-Dichloropropane	63	7.952	7.950	0.002	94	132354	50.0	52.3	
65 1,4-Dioxane	88	8.037	8.029	0.008	39	25874	1000.0	1035.0	
67 Dibromomethane	93	8.037	8.035	0.002	94	72460	50.0	47.1	
68 Dichlorobromomethane	83	8.232	8.230	0.002	98	125455	50.0	43.4	
71 cis-1,3-Dichloropropene	75	8.676	8.674	0.002	91	145342	50.0	45.8	
72 4-Methyl-2-pentanone (MIBK)	43	8.822	8.826	-0.004	98	217963	100.0	101.8	
73 Toluene	91	9.011	9.009	0.002	98	506656	50.0	47.1	
74 trans-1,3-Dichloropropene	75	9.254	9.252	0.002	99	125366	50.0	45.9	
75 Ethyl methacrylate	69	9.315	9.313	0.002	93	148130	50.0	51.1	
76 1,1,2-Trichloroethane	97	9.449	9.453	-0.004	94	115284	50.0	51.9	
77 Tetrachloroethene	164	9.528	9.526	0.002	96	91471	50.0	49.9	
78 1,3-Dichloropropane	76	9.607	9.611	-0.004	96	211483	50.0	51.5	
79 2-Hexanone	43	9.655	9.660	-0.005	97	151129	100.0	107.5	
81 Chlorodibromomethane	129	9.826	9.824	0.002	90	74059	50.0	48.8	
82 Ethylene Dibromide	107	9.941	9.939	0.002	99	99981	50.0	50.8	
83 3-Chlorobenzotrifluoride	180	10.398	10.396	0.002	91	163147	50.0	47.4	
84 Chlorobenzene	112	10.428	10.426	0.002	92	341694	50.0	51.7	
85 4-Chlorobenzotrifluoride	180	10.483	10.487	-0.004	96	151927	50.0	47.6	
86 1,1,1,2-Tetrachloroethane	131	10.525	10.523	0.002	87	92315	50.0	51.0	
87 Ethylbenzene	106	10.532	10.529	0.003	99	189244	50.0	50.8	
88 m-Xylene & p-Xylene	106	10.659	10.657	0.002	100	237209	50.0	51.3	
89 o-Xylene	106	11.036	11.040	-0.004	97	231751	50.0	50.1	
90 Styrene	104	11.061	11.065	-0.004	95	396495	50.0	55.8	
91 Bromoform	173	11.243	11.247	-0.004	96	43726	50.0	54.0	
92 2-Chlorobenzotrifluoride	180	11.304	11.302	0.002	96	162437	50.0	46.1	
93 Isopropylbenzene	105	11.408	11.412	-0.004	97	579642	50.0	52.4	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.716	-0.004	97	150160	50.0	50.5	
95 Bromobenzene	156	11.724	11.728	-0.004	97	151442	50.0	51.1	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.752	-0.004	78	43214	50.0	46.0	
98 1,2,3-Trichloropropane	110	11.773	11.777	-0.004	85	56822	50.0	50.4	
99 N-Propylbenzene	120	11.827	11.825	0.002	99	154739	50.0	45.4	
100 2-Chlorotoluene	126	11.919	11.910	0.009	94	140674	50.0	49.7	
101 3-Chlorotoluene	126	11.985	11.977	0.008	96	136333	50.0	45.8	
102 1,3,5-Trimethylbenzene	105	12.010	12.008	0.002	94	522409	50.0	47.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.034	12.038	-0.004	99	147794	50.0	49.4	
104 tert-Butylbenzene	119	12.326	12.324	0.002	92	395618	50.0	45.1	
106 1,2,4-Trimethylbenzene	105	12.387	12.385	0.002	98	539671	50.0	47.6	
107 1,2-dichloro-4-(trifluorom	214	12.423	12.421	0.002	98	141281	50.0	44.0	
108 sec-Butylbenzene	105	12.551	12.549	0.002	96	620349	50.0	47.4	
109 1,3-Dichlorobenzene	146	12.667	12.671	-0.004	95	282816	50.0	48.9	
110 4-Isopropyltoluene	119	12.703	12.707	-0.004	96	507360	50.0	46.2	
111 1,4-Dichlorobenzene	146	12.776	12.774	0.002	91	297591	50.0	50.3	
113 2,4-Dichloro-1-(trifluorom	214	12.795	12.792	0.003	95	147679	50.0	46.2	
114 2,5-Dichlorobenzotrifluori	214	12.831	12.835	-0.004	97	150048	50.0	42.0	
116 n-Butylbenzene	91	13.117	13.115	0.002	98	482226	50.0	44.0	
117 1,2-Dichlorobenzene	146	13.123	13.127	-0.004	95	284673	50.0	48.7	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.924	-0.010	68	19294	50.0	36.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.058	0.002	99	622657	150.0	122.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.478	-0.004	99	459393	100.0	81.9	
122 1,2,4-Trichlorobenzene	180	14.741	14.745	-0.004	93	217214	50.0	48.0	
123 Hexachlorobutadiene	225	14.887	14.891	-0.004	96	89119	50.0	50.0	
124 Naphthalene	128	15.009	15.013	-0.004	98	443343	50.0	48.5	
125 1,2,3-Trichlorobenzene	180	15.234	15.232	0.002	93	192723	50.0	45.5	
126 2,4,5-Trichlorotoluene	159	16.007	16.011	-0.004	0	103411	50.0	36.4	
127 2,3,6-Trichlorotoluene	159	16.110	16.108	0.002	95	104201	50.0	38.6	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 131 Xylenes, Total	106				0		100.0	101.4	
S 130 1,2-Dichloroethene, Total	96				0		100.0	80.1	
S 132 1,3-Dichloropropene, Total	1				0		100.0	91.7	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00144	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00006	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150930-8760.b\60930008.D

Injection Date: 30-Sep-2015 14:13:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: LCS

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

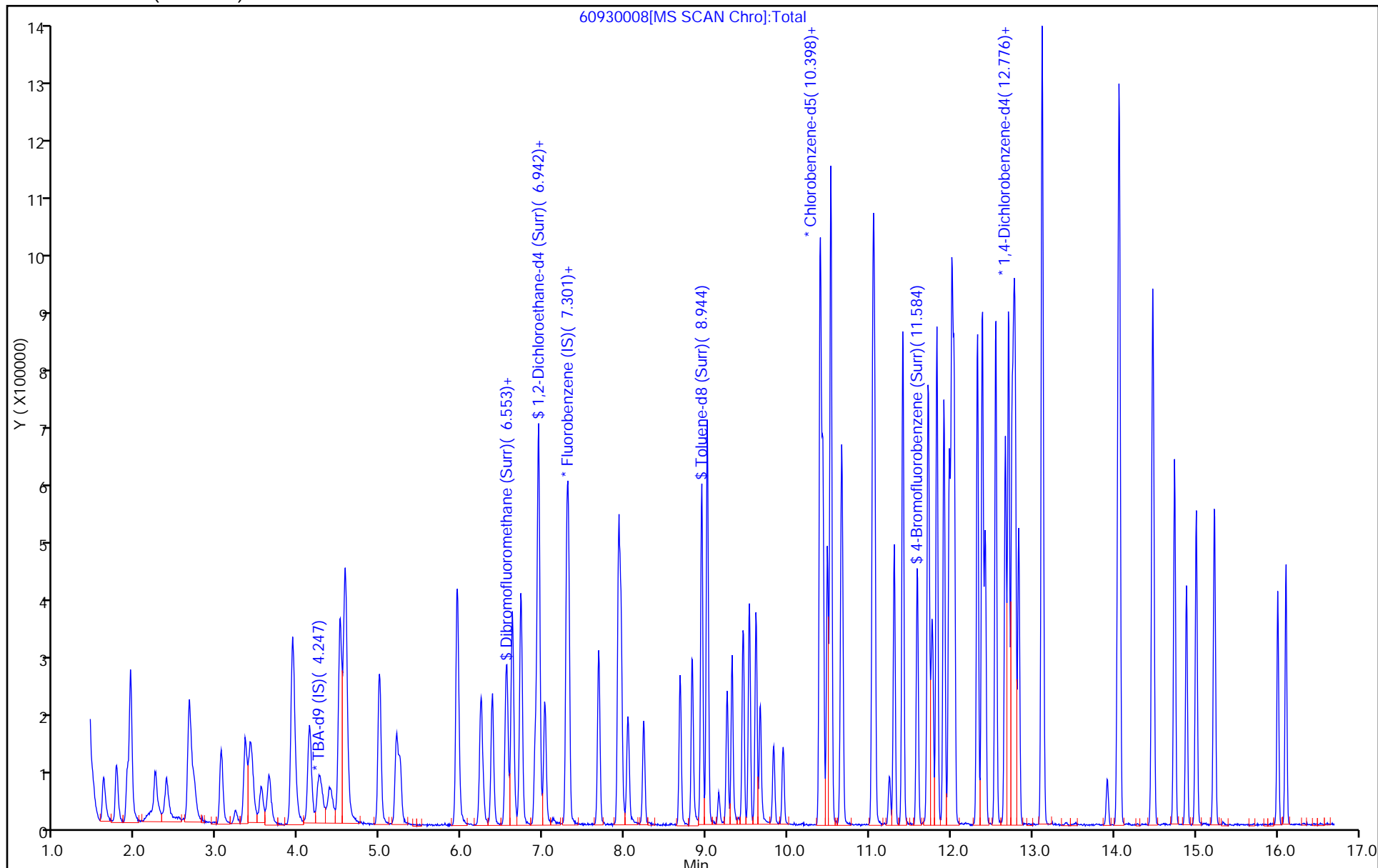
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-3-0/1-0 MS Lab Sample ID: 180-47984-1 MS  
 Matrix: Water Lab File ID: 60928009.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 09:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 14:46  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.4		1.0	0.28
75-01-4	Vinyl chloride	10.8		1.0	0.23
74-83-9	Bromomethane	8.90		1.0	0.31
75-00-3	Chloroethane	9.88		1.0	0.21
75-35-4	1,1-Dichloroethene	8.53		1.0	0.30
67-64-1	Acetone	20.9		5.0	2.5
75-15-0	Carbon disulfide	8.21		1.0	0.21
75-09-2	Methylene Chloride	8.45		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.66		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.00		1.0	0.18
75-34-3	1,1-Dichloroethane	9.20		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.84		1.0	0.24
74-97-5	Bromochloromethane	9.38		1.0	0.18
78-93-3	2-Butanone (MEK)	24.6		5.0	0.55
67-66-3	Chloroform	11.4		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.71		1.0	0.29
56-23-5	Carbon tetrachloride	9.22		1.0	0.14
71-43-2	Benzene	9.31		1.0	0.11
107-06-2	1,2-Dichloroethane	9.60		1.0	0.21
79-01-6	Trichloroethene	39.7		1.0	0.14
78-87-5	1,2-Dichloropropane	10.8		1.0	0.095
75-27-4	Bromodichloromethane	9.52		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.4		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	23.9		5.0	0.53
108-88-3	Toluene	9.90		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	11.0		1.0	0.15
591-78-6	2-Hexanone	25.6		5.0	0.16
124-48-1	Dibromochloromethane	10.7		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	11.1		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.9		1.0	0.28
100-41-4	Ethylbenzene	10.6		1.0	0.23
1330-20-7	Xylenes, Total	21.4		3.0	0.49
100-42-5	Styrene	11.2		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-3-0/1-0 MS Lab Sample ID: 180-47984-1 MS  
 Matrix: Water Lab File ID: 60928009.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 09:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 14:46  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.6		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.1		1.0	0.20
107-13-1	Acrylonitrile	111		20	0.55
123-91-1	1,4-Dioxane	190	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928009.D  
 Lims ID: 180-47984-C-1 MS  
 Client ID: HD-MW-3-0/1-0  
 Sample Type: MS  
 Inject. Date: 28-Sep-2015 14:46:30 ALS Bottle#: 9 Worklist Smp#: 9  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47984-C-1 MS  
 Misc. Info.: 180-0008724-009  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 28-Sep-2015 15:05:58 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK009

First Level Reviewer: fergusond

Date: 28-Sep-2015 15:05:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.243	4.241	0.002	87	215286	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.283	0.002	97	487203	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.398	0.001	90	114010	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.746	0.002	97	188515	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.555	6.547	0.008	93	108954	50.0	48.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.930	0.002	73	179113	50.0	49.5	
\$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	94	464355	50.0	51.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.584	0.002	86	183061	50.0	45.8	
11 Dichlorodifluoromethane	85	1.603	1.613	-0.010	99	159769	50.0	47.4	
12 Chloromethane	50	1.767	1.765	0.002	99	179786	50.0	61.8	
13 Vinyl chloride	62	1.895	1.905	-0.010	99	169003	50.0	54.0	
14 Butadiene	39	1.937	1.942	-0.005	94	186623	50.0	63.6	
15 Bromomethane	94	2.242	2.240	0.002	92	75230	50.0	44.5	
16 Chloroethane	64	2.388	2.380	0.008	100	105574	50.0	49.4	
17 Dichlorofluoromethane	67	2.655	2.654	0.001	97	237638	50.0	47.8	
18 Trichlorofluoromethane	101	2.673	2.684	-0.011	62	189088	50.0	47.7	
20 Ethyl ether	59	3.045	3.037	0.008	93	122066	50.0	43.4	
21 Acrolein	56	3.221	3.213	0.008	98	33944	150.0	110.7	
22 1,1-Dichloroethene	96	3.337	3.341	-0.004	94	104645	50.0	42.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.402	0.014	94	112008	50.0	43.3	
24 Acetone	43	3.434	3.426	0.008	95	90254	100.0	104.7	
25 Iodomethane	142	3.543	3.530	0.013	98	154593	50.0	47.0	
26 Carbon disulfide	76	3.635	3.633	0.002	100	260806	50.0	41.0	
29 3-Chloro-1-propene	76	3.915	3.913	0.001	89	58265	50.0	42.1	
30 Methyl acetate	43	3.933	3.919	0.014	98	574105	250.0	284.0	
31 Methylene Chloride	84	4.127	4.126	0.001	98	146110	50.0	42.2	
32 2-Methyl-2-propanol	59	4.389	4.387	0.002	94	126608	500.0	522.6	
33 Acrylonitrile	53	4.505	4.503	0.002	100	566466	500.0	556.0	
34 trans-1,2-Dichloroethene	96	4.559	4.558	0.001	92	122524	50.0	43.3	
35 Methyl tert-butyl ether	73	4.572	4.564	0.008	98	381605	50.0	45.0	
36 Hexane	57	4.985	4.984	0.001	95	203522	50.0	53.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.192	5.190	0.002	97	233017	50.0	46.0	
38 Vinyl acetate	43	5.241	5.239	0.002	98	243285	50.0	59.5	
43 cis-1,2-Dichloroethene	96	5.940	5.933	0.007	88	151363	50.0	49.2	
42 2,2-Dichloropropane	77	5.940	5.939	0.001	59	115705	50.0	45.2	
44 2-Butanone (MEK)	43	5.952	5.951	0.001	100	144816	100.0	123.1	
48 Chlorobromomethane	128	6.226	6.225	0.001	94	57998	50.0	46.9	
49 Tetrahydrofuran	42	6.251	6.243	0.008	88	97656	100.0	123.3	
50 Chloroform	83	6.372	6.371	0.001	96	286717	50.0	57.0	
51 1,1,1-Trichloroethane	97	6.543	6.535	0.008	96	161737	50.0	43.5	
52 Cyclohexane	56	6.616	6.620	-0.004	93	245797	50.0	51.6	
53 Carbon tetrachloride	117	6.719	6.717	0.002	95	121056	50.0	46.1	
54 1,1-Dichloropropene	75	6.725	6.730	-0.005	92	185021	50.0	46.3	
55 Isobutyl alcohol	41	6.908	6.900	0.008	92	120257	1250.0	1706.1	
56 Benzene	78	6.944	6.942	0.002	98	528562	50.0	46.5	
57 1,2-Dichloroethane	62	7.017	7.015	0.002	98	219574	50.0	48.0	
59 n-Heptane	43	7.309	7.307	0.002	92	189497	50.0	61.4	
61 Trichloroethene	130	7.680	7.679	0.001	96	470406	50.0	198.6	
63 Methylcyclohexane	83	7.924	7.922	0.002	94	223402	50.0	46.5	
64 1,2-Dichloropropane	63	7.948	7.952	-0.004	94	146314	50.0	53.9	
65 1,4-Dioxane	88	8.039	8.038	0.001	35	25428	1000.0	949.7	
67 Dibromomethane	93	8.039	8.038	0.001	95	82395	50.0	50.0	
68 Dichlorobromomethane	83	8.234	8.232	0.002	98	147380	50.0	47.6	
71 cis-1,3-Dichloropropene	75	8.678	8.676	0.002	91	177018	50.0	52.1	
72 4-Methyl-2-pentanone (MIBK)	43	8.824	8.822	0.002	97	280324	100.0	119.6	
73 Toluene	91	9.012	9.011	0.001	98	582232	50.0	49.5	
74 trans-1,3-Dichloropropene	75	9.256	9.254	0.002	99	149854	50.0	50.2	
75 Ethyl methacrylate	69	9.311	9.315	-0.004	91	187167	50.0	59.0	
76 1,1,2-Trichloroethane	97	9.450	9.449	0.001	95	123266	50.0	50.7	
77 Tetrachloroethene	164	9.523	9.528	-0.005	94	110376	50.0	55.0	
78 1,3-Dichloropropane	76	9.609	9.607	0.002	96	235958	50.0	52.5	
79 2-Hexanone	43	9.657	9.656	0.001	98	197121	100.0	128.1	
81 Chlorodibromomethane	129	9.828	9.820	0.008	90	88675	50.0	53.4	
82 Ethylene Dibromide	107	9.943	9.936	0.007	95	119018	50.0	55.3	
83 3-Chlorobenzotrifluoride	180	10.393	10.392	0.001	96	191749	50.0	50.9	
84 Chlorobenzene	112	10.430	10.428	0.002	92	380723	50.0	52.7	
85 4-Chlorobenzotrifluoride	180	10.485	10.483	0.002	97	175185	50.0	50.2	
86 1,1,1,2-Tetrachloroethane	131	10.521	10.520	0.001	83	107763	50.0	54.4	
87 Ethylbenzene	106	10.527	10.526	0.001	99	215208	50.0	52.8	
88 m-Xylene & p-Xylene	106	10.661	10.659	0.002	99	269857	50.0	53.3	
89 o-Xylene	106	11.038	11.037	0.001	97	271654	50.0	53.6	
90 Styrene	104	11.063	11.061	0.002	95	434190	50.0	55.8	
91 Bromoform	173	11.245	11.244	0.001	96	47035	50.0	53.1	
92 2-Chlorobenzotrifluoride	180	11.306	11.304	0.002	96	189609	50.0	49.1	
93 Isopropylbenzene	105	11.409	11.408	0.001	97	671207	50.0	55.4	
96 1,1,2,2-Tetrachloroethane	83	11.714	11.712	0.002	97	163679	50.0	50.3	
95 Bromobenzene	156	11.726	11.724	0.002	98	160172	50.0	52.9	
97 trans-1,4-Dichloro-2-buten	53	11.756	11.748	0.008	63	44497	50.0	46.3	
98 1,2,3-Trichloropropane	110	11.768	11.773	-0.005	86	58481	50.0	50.7	
99 N-Propylbenzene	120	11.829	11.828	0.001	99	173343	50.0	49.7	
100 2-Chlorotoluene	126	11.914	11.913	0.001	94	148759	50.0	51.3	
101 3-Chlorotoluene	126	11.981	11.980	0.001	96	144485	50.0	47.5	
102 1,3,5-Trimethylbenzene	105	12.012	12.010	0.002	93	573981	50.0	50.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.036	12.040	-0.004	99	163335	50.0	53.4	
104 tert-Butylbenzene	119	12.322	12.326	-0.004	92	455744	50.0	50.8	
106 1,2,4-Trimethylbenzene	105	12.383	12.381	0.002	99	592521	50.0	51.1	
107 1,2-dichloro-4-(trifluorom	214	12.419	12.418	0.001	98	156752	50.0	47.7	
108 sec-Butylbenzene	105	12.547	12.551	-0.004	96	699961	50.0	52.3	
109 1,3-Dichlorobenzene	146	12.669	12.667	0.002	95	303020	50.0	51.2	
110 4-Isopropyltoluene	119	12.705	12.704	0.001	96	579012	50.0	51.6	
111 1,4-Dichlorobenzene	146	12.772	12.770	0.002	95	321094	50.0	53.1	
113 2,4-Dichloro-1-(trifluorom	214	12.790	12.789	0.001	95	151113	50.0	46.2	
114 2,5-Dichlorobenzotrifluori	214	12.833	12.831	0.002	98	178879	50.0	49.0	
116 n-Butylbenzene	91	13.113	13.111	0.002	97	564123	50.0	50.3	
117 1,2-Dichlorobenzene	146	13.125	13.123	0.002	96	312398	50.0	52.3	
118 1,2-Dibromo-3-Chloropropan	75	13.916	13.914	0.002	68	25541	50.0	46.6	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.062	14.060	0.002	99	735507	150.0	141.4	
121 2,3- & 3,4- Dichlorotoluen	125	14.475	14.474	0.001	99	527557	100.0	91.9	
122 1,2,4-Trichlorobenzene	180	14.743	14.741	0.002	92	241321	50.0	52.1	
123 Hexachlorobutadiene	225	14.889	14.894	-0.005	96	99134	50.0	54.3	
124 Naphthalene	128	15.005	15.009	-0.004	99	551522	50.0	59.0	
125 1,2,3-Trichlorobenzene	180	15.230	15.228	0.002	93	219066	50.0	50.5	
126 2,4,5-Trichlorotoluene	159	16.008	16.007	0.001	0	135875	50.0	46.7	
127 2,3,6-Trichlorotoluene	159	16.106	16.110	-0.004	95	128832	50.0	46.7	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	92.5	
S 131 Xylenes, Total	106				0		100.0	106.9	
S 132 1,3-Dichloropropene, Total	1				0		100.0	102.2	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Reagents:

voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00144	Amount Added: 2.00	Units: uL	
voaWEEpri Res_00005	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928009.D

Injection Date: 28-Sep-2015 14:46:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-C-1 MS

Worklist Smp#: 9

Client ID: HD-MW-3-0/1-0

Purge Vol: 5.000 mL

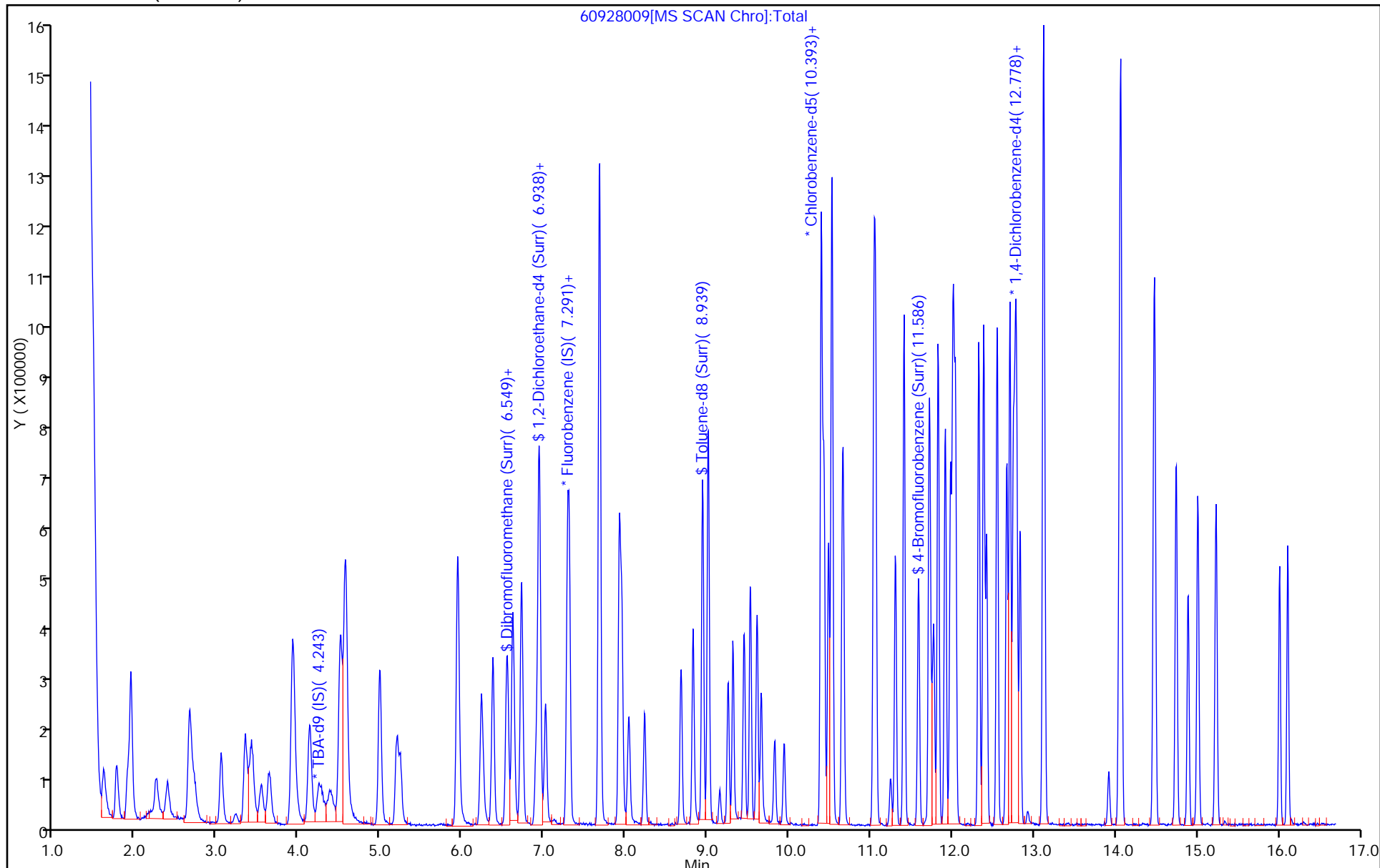
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA\_LL\_CHHP6

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.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-3-0/1-0 MSD Lab Sample ID: 180-47984-1 MSD  
 Matrix: Water Lab File ID: 60928010.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 09:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 15:10  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	12.6		1.0	0.28
75-01-4	Vinyl chloride	11.0		1.0	0.23
74-83-9	Bromomethane	8.77		1.0	0.31
75-00-3	Chloroethane	10.8		1.0	0.21
75-35-4	1,1-Dichloroethene	8.18		1.0	0.30
67-64-1	Acetone	22.1		5.0	2.5
75-15-0	Carbon disulfide	8.13		1.0	0.21
75-09-2	Methylene Chloride	9.10		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.04		1.0	0.17
1634-04-4	Methyl tert-butyl ether	9.59		1.0	0.18
75-34-3	1,1-Dichloroethane	9.74		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.76		1.0	0.24
74-97-5	Bromochloromethane	10.1		1.0	0.18
78-93-3	2-Butanone (MEK)	27.3		5.0	0.55
67-66-3	Chloroform	11.6		1.0	0.17
71-55-6	1,1,1-Trichloroethane	8.92		1.0	0.29
56-23-5	Carbon tetrachloride	9.00		1.0	0.14
71-43-2	Benzene	9.69		1.0	0.11
107-06-2	1,2-Dichloroethane	9.95		1.0	0.21
79-01-6	Trichloroethene	37.9		1.0	0.14
78-87-5	1,2-Dichloropropane	11.3		1.0	0.095
75-27-4	Bromodichloromethane	9.45		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.1		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	23.7		5.0	0.53
108-88-3	Toluene	9.59		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.90		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.1		1.0	0.20
127-18-4	Tetrachloroethene	10.6		1.0	0.15
591-78-6	2-Hexanone	24.9		5.0	0.16
124-48-1	Dibromochloromethane	10.6		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.7		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	10.6		1.0	0.23
1330-20-7	Xylenes, Total	21.1		3.0	0.49
100-42-5	Styrene	11.0		1.0	0.097

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-MW-3-0/1-0 MSD Lab Sample ID: 180-47984-1 MSD  
 Matrix: Water Lab File ID: 60928010.D  
 Analysis Method: 8260C Date Collected: 09/21/2015 09:30  
 Sample wt/vol: 5 (mL) Date Analyzed: 09/28/2015 15:10  
 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.: 155089 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.8		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	118		20	0.55
123-91-1	1,4-Dioxane	230		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128



TestAmerica Pittsburgh  
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928010.D  
 Lims ID: 180-47984-C-1 MSD  
 Client ID: HD-MW-3-0/1-0  
 Sample Type: MSD  
 Inject. Date: 28-Sep-2015 15:10:30 ALS Bottle#: 10 Worklist Smp#: 10  
 Purge Vol: 5.000 mL Dil. Factor: 1.0000  
 Sample Info: 180-47984-C-1 MSD  
 Misc. Info.: 180-0008724-010  
 Operator ID: 001562 Instrument ID: CHHP6  
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\MSVOA\_LL\_CHHP6.m  
 Limit Group: VOA 8260C ICAL  
 Last Update: 29-Sep-2015 08:17:26 Calib Date: 14-Sep-2015 16:03:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150914-8521.b\60914006.D  
 Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN  
 Process Host: XAWRK018

First Level Reviewer: fergusond

Date: 29-Sep-2015 08:17:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.248	4.241	0.007	91	226742	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.283	0.007	98	461261	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.398	-0.006	92	115385	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.746	0.001	97	194571	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.554	6.547	0.007	92	110508	50.0	52.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.930	0.001	74	177986	50.0	51.9	
\$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	95	472883	50.0	52.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.584	0.001	83	199224	50.0	49.3	
11 Dichlorodifluoromethane	85	1.608	1.613	-0.005	99	151544	50.0	47.4	
12 Chloromethane	50	1.772	1.765	0.007	99	173364	50.0	63.0	
13 Vinyl chloride	62	1.906	1.905	0.001	97	162686	50.0	54.9	
14 Butadiene	39	1.942	1.942	0.000	95	178408	50.0	64.2	
15 Bromomethane	94	2.247	2.240	0.007	89	70226	50.0	43.9	
16 Chloroethane	64	2.387	2.380	0.006	99	109758	50.0	54.2	
17 Dichlorofluoromethane	67	2.660	2.654	0.006	98	233506	50.0	49.6	
18 Trichlorofluoromethane	101	2.691	2.684	0.007	1	181776	50.0	48.4	M
20 Ethyl ether	59	3.044	3.037	0.007	93	131468	50.0	49.4	
21 Acrolein	56	3.220	3.213	0.007	97	29004	150.0	99.9	M
22 1,1-Dichloroethene	96	3.342	3.341	0.001	95	94979	50.0	40.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.402	0.013	95	106680	50.0	43.5	
24 Acetone	43	3.439	3.426	0.013	85	90249	100.0	110.6	
25 Iodomethane	142	3.536	3.530	0.006	100	152815	50.0	49.0	
26 Carbon disulfide	76	3.634	3.633	0.001	100	244582	50.0	40.6	
29 3-Chloro-1-propene	76	3.913	3.913	0.000	71	57492	50.0	43.9	
30 Methyl acetate	43	3.926	3.919	0.007	97	575153	250.0	300.6	
31 Methylene Chloride	84	4.126	4.126	0.000	98	147786	50.0	45.5	
32 2-Methyl-2-propanol	59	4.394	4.387	0.007	89	146489	500.0	574.1	
33 Acrylonitrile	53	4.510	4.503	0.007	99	567265	500.0	588.1	
34 trans-1,2-Dichloroethene	96	4.564	4.558	0.006	94	121121	50.0	45.2	
35 Methyl tert-butyl ether	73	4.570	4.564	0.006	97	385031	50.0	48.0	
36 Hexane	57	4.990	4.984	0.006	96	193243	50.0	53.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.197	5.190	0.007	97	233636	50.0	48.7	
38 Vinyl acetate	43	5.240	5.239	0.001	98	240750	50.0	62.2	
43 cis-1,2-Dichloroethene	96	5.945	5.933	0.012	87	142171	50.0	48.8	
42 2,2-Dichloropropane	77	5.945	5.939	0.006	57	115436	50.0	47.6	
44 2-Butanone (MEK)	43	5.951	5.951	0.000	66	151806	100.0	136.3	
48 Chlorobromomethane	128	6.231	6.225	0.006	93	58860	50.0	50.3	
49 Tetrahydrofuran	42	6.243	6.243	0.000	91	94765	100.0	126.3	
50 Chloroform	83	6.377	6.371	0.006	95	275418	50.0	57.8	
51 1,1,1-Trichloroethane	97	6.542	6.535	0.007	97	156857	50.0	44.6	
52 Cyclohexane	56	6.621	6.620	0.001	94	236158	50.0	52.4	
53 Carbon tetrachloride	117	6.718	6.717	0.001	96	111861	50.0	45.0	
54 1,1-Dichloropropene	75	6.724	6.730	-0.006	92	179787	50.0	47.5	
55 Isobutyl alcohol	41	6.900	6.900	0.000	94	124854	1250.0	1870.9	
56 Benzene	78	6.943	6.942	0.001	97	521079	50.0	48.5	
57 1,2-Dichloroethane	62	7.016	7.015	0.001	98	215308	50.0	49.7	
59 n-Heptane	43	7.308	7.307	0.001	93	174961	50.0	59.9	
61 Trichloroethene	130	7.679	7.679	0.000	95	425146	50.0	189.6	
63 Methylcyclohexane	83	7.922	7.922	0.000	95	213204	50.0	46.9	
64 1,2-Dichloropropane	63	7.947	7.952	-0.005	83	144875	50.0	56.4	
65 1,4-Dioxane	88	8.038	8.038	0.000	36	29094	1000.0	1147.7	
67 Dibromomethane	93	8.038	8.038	0.000	95	76719	50.0	49.2	
68 Dichlorobromomethane	83	8.227	8.232	-0.005	98	138511	50.0	47.3	
71 cis-1,3-Dichloropropene	75	8.677	8.676	0.001	90	178862	50.0	55.6	
72 4-Methyl-2-pentanone (MIBK)	43	8.823	8.822	0.001	97	280501	100.0	118.3	
73 Toluene	91	9.011	9.011	0.000	98	570783	50.0	47.9	
74 trans-1,3-Dichloropropene	75	9.255	9.254	0.001	99	149563	50.0	49.5	
75 Ethyl methacrylate	69	9.316	9.315	0.001	90	190765	50.0	59.4	
76 1,1,2-Trichloroethane	97	9.449	9.449	0.000	95	123961	50.0	50.3	
77 Tetrachloroethene	164	9.528	9.528	0.000	94	107252	50.0	52.8	
78 1,3-Dichloropropane	76	9.608	9.607	0.001	95	241618	50.0	53.1	
79 2-Hexanone	43	9.656	9.656	0.000	98	194011	100.0	124.5	
81 Chlorodibromomethane	129	9.827	9.820	0.007	89	89004	50.0	53.0	
82 Ethylene Dibromide	107	9.942	9.936	0.006	98	116057	50.0	53.3	
83 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	90	182405	50.0	47.8	
84 Chlorobenzene	112	10.429	10.428	0.001	91	385690	50.0	52.7	
85 4-Chlorobenzotrifluoride	180	10.484	10.483	0.001	96	174444	50.0	49.4	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.520	0.000	85	102475	50.0	51.1	
87 Ethylbenzene	106	10.526	10.526	0.000	99	218777	50.0	53.0	
88 m-Xylene & p-Xylene	106	10.654	10.659	-0.005	100	271819	50.0	53.1	
89 o-Xylene	106	11.037	11.037	0.000	97	269708	50.0	52.6	
90 Styrene	104	11.062	11.061	0.001	95	432714	50.0	55.0	
91 Bromoform	173	11.244	11.244	0.000	93	48544	50.0	54.1	
92 2-Chlorobenzotrifluoride	180	11.305	11.304	0.001	95	185758	50.0	47.6	
93 Isopropylbenzene	105	11.408	11.408	0.000	98	668337	50.0	54.5	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.712	0.000	96	167672	50.0	50.9	
95 Bromobenzene	156	11.725	11.724	0.001	98	167612	50.0	53.6	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.748	0.007	70	44224	50.0	44.6	
98 1,2,3-Trichloropropane	110	11.773	11.773	0.000	86	57839	50.0	48.6	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	178479	50.0	49.5	
100 2-Chlorotoluene	126	11.913	11.913	0.000	94	154492	50.0	51.7	
101 3-Chlorotoluene	126	11.980	11.980	0.000	96	152856	50.0	48.7	
102 1,3,5-Trimethylbenzene	105	12.011	12.010	0.001	96	579453	50.0	49.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.035	12.040	-0.005	100	166313	50.0	52.6	
104 tert-Butylbenzene	119	12.327	12.326	0.001	92	458718	50.0	49.6	
106 1,2,4-Trimethylbenzene	105	12.382	12.381	0.001	99	595981	50.0	49.8	
107 1,2-dichloro-4-(trifluorom	214	12.418	12.418	0.000	97	150026	50.0	44.2	
108 sec-Butylbenzene	105	12.546	12.551	-0.005	96	701667	50.0	50.8	
109 1,3-Dichlorobenzene	146	12.668	12.667	0.001	94	309917	50.0	50.7	
110 4-Isopropyltoluene	119	12.704	12.704	0.000	96	576188	50.0	49.7	
111 1,4-Dichlorobenzene	146	12.771	12.770	0.001	90	330466	50.0	52.9	
113 2,4-Dichloro-1-(trifluorom	214	12.789	12.789	0.000	95	161145	50.0	47.7	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.831	0.001	97	156439	50.0	41.5	
116 n-Butylbenzene	91	13.112	13.111	0.001	98	546679	50.0	47.2	
117 1,2-Dichlorobenzene	146	13.124	13.123	0.001	92	313221	50.0	50.8	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.914	0.001	70	24241	50.0	42.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.060	0.001	98	706071	150.0	131.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.474	14.474	0.000	98	526193	100.0	88.8	
122 1,2,4-Trichlorobenzene	180	14.742	14.741	0.001	94	237865	50.0	49.8	
123 Hexachlorobutadiene	225	14.888	14.894	-0.006	96	94399	50.0	50.1	
124 Naphthalene	128	15.004	15.009	-0.005	99	539477	50.0	55.9	
125 1,2,3-Trichlorobenzene	180	15.229	15.228	0.001	93	215483	50.0	48.2	
126 2,4,5-Trichlorotoluene	159	16.007	16.007	0.000	0	127388	50.0	42.4	
127 2,3,6-Trichlorotoluene	159	16.111	16.110	0.001	95	123129	50.0	43.2	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	94.0	
S 131 Xylenes, Total	106				0		100.0	105.7	
S 132 1,3-Dichloropropene, Total	1				0		100.0	105.1	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

voaWAcro1stRe_00001	Amount Added: 6.00	Units: uL	
voaWEEpri Res_00005	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00144	Amount Added: 2.00	Units: uL	
voaWVA2nd Res_00010	Amount Added: 2.00	Units: uL	
voaWKetmix2nd_00002	Amount Added: 2.00	Units: uL	
VOA8260INT_00042	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00042	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150928-8724.b\60928010.D

Injection Date: 28-Sep-2015 15:10:30

Instrument ID: CHHP6

Operator ID: 001562

Lims ID: 180-47984-C-1 MSD

Worklist Smp#: 10

Client ID: HD-MW-3-0/1-0

Purge Vol: 5.000 mL

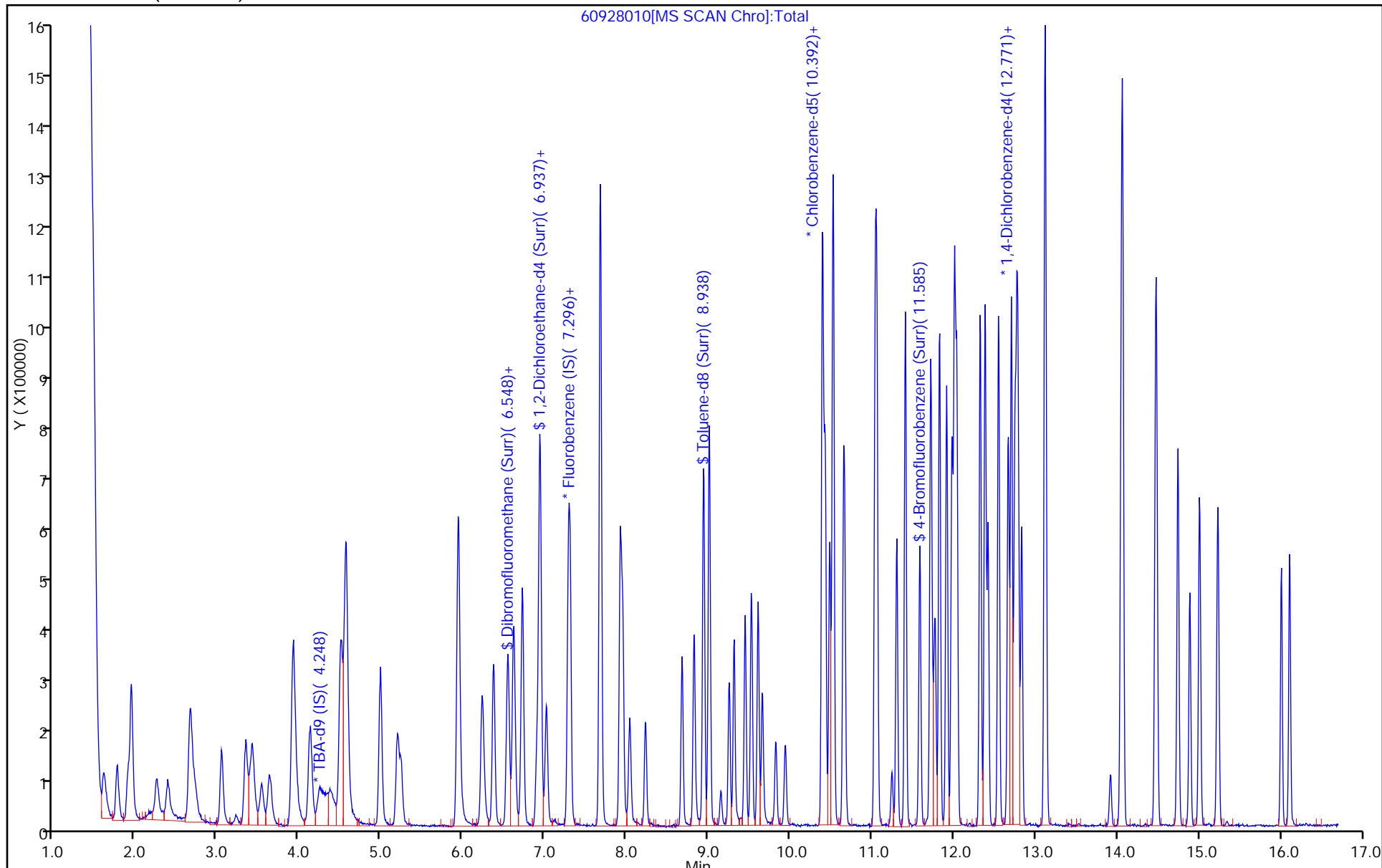
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA\_LL\_CHHP6

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Start Date: 07/31/2015 12:10Analysis Batch Number: 149469 End Date: 07/31/2015 18:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-149469/1		07/31/2015 12:10	1	60731001.D	DB-624 0.18 (mm)
IC 180-149469/4		07/31/2015 14:00	1	60731004.D	DB-624 0.18 (mm)
ICIS 180-149469/5		07/31/2015 14:24	1	60731005.D	DB-624 0.18 (mm)
IC 180-149469/6		07/31/2015 14:49	1	60731006.D	DB-624 0.18 (mm)
IC 180-149469/7		07/31/2015 15:13	1	60731007.D	DB-624 0.18 (mm)
IC 180-149469/8		07/31/2015 15:37	1	60731008.D	DB-624 0.18 (mm)
IC 180-149469/9		07/31/2015 16:01	1	60731009.D	DB-624 0.18 (mm)
IC 180-149469/10		07/31/2015 16:25	1	60731010.D	DB-624 0.18 (mm)
IC 180-149469/14		07/31/2015 18:02	1	60731014.D	DB-624 0.18 (mm)
ZZZZZ		07/31/2015 18:26	1		DB-624 0.18 (mm)
ICV 180-149469/16		07/31/2015 18:50	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Start Date: 09/28/2015 10:22

Analysis Batch Number: 155089 End Date: 09/28/2015 22:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-155089/1		09/28/2015 10:22	1	60928001.D	DB-624 0.18 (mm)
CCVIS 180-155089/2		09/28/2015 11:03	1	60928002.D	DB-624 0.18 (mm)
ZZZZZ		09/28/2015 11:42	1		DB-624 0.18 (mm)
MB 180-155089/4		09/28/2015 12:18	1	60928004.D	DB-624 0.18 (mm)
180-47984-6	HD-QC5-0/1-2	09/28/2015 13:00	1	60928005.D	DB-624 0.18 (mm)
180-47984-1	HD-MW-3-0/1-0	09/28/2015 13:33	1	60928006.D	DB-624 0.18 (mm)
ZZZZZ		09/28/2015 13:57	1		DB-624 0.18 (mm)
LCS 180-155089/8		09/28/2015 14:21	1	60928008.D	DB-624 0.18 (mm)
180-47984-1 MS	HD-MW-3-0/1-0 MS	09/28/2015 14:46	1	60928009.D	DB-624 0.18 (mm)
180-47984-1 MSD	HD-MW-3-0/1-0 MSD	09/28/2015 15:10	1	60928010.D	DB-624 0.18 (mm)
ZZZZZ		09/28/2015 15:58	1250		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 16:22	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 16:47	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 17:11	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 17:35	200		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 18:00	40		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 18:24	25		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 18:49	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 19:13	100		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 20:02	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 20:26	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 20:50	1		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 21:14	20		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 21:38	4		DB-624 0.18 (mm)
ZZZZZ		09/28/2015 22:03	2.5		DB-624 0.18 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-47984-1

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

Instrument ID: CHHP6Start Date: 09/29/2015 10:59Analysis Batch Number: 155230End Date: 09/29/2015 22:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-155230/4		09/29/2015 10:59	1	60929004.D	DB-624 0.18 (mm)
CCVIS 180-155230/2		09/29/2015 11:39	1	60929002.D	DB-624 0.18 (mm)
ZZZZZ		09/29/2015 12:18	1		DB-624 0.18 (mm)
MB 180-155230/5		09/29/2015 12:50	1	60929005.D	DB-624 0.18 (mm)
ZZZZZ		09/29/2015 13:29	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 13:54	1		DB-624 0.18 (mm)
LCS 180-155230/8		09/29/2015 14:18	1	60929008.D	DB-624 0.18 (mm)
ZZZZZ		09/29/2015 14:42	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 15:06	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 15:55	5		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 16:19	100		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 16:43	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 17:07	200		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 17:32	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 17:56	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 18:21	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 18:45	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 19:09	1		DB-624 0.18 (mm)
180-47984-3	HD-MW-32D-0/1-0	09/29/2015 19:57	10	60929022.D	DB-624 0.18 (mm)
ZZZZZ		09/29/2015 20:22	1		DB-624 0.18 (mm)
180-47984-4	HD-MW-32S-0/1-0	09/29/2015 20:47	10	60929024.D	DB-624 0.18 (mm)
180-47984-5	HD-QC2-0/1-1	09/29/2015 21:11	10	60929025.D	DB-624 0.18 (mm)
ZZZZZ		09/29/2015 21:59	1		DB-624 0.18 (mm)
ZZZZZ		09/29/2015 22:24	10		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-47984-1

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

Instrument ID: CHHP6 Start Date: 09/30/2015 10:50

Analysis Batch Number: 155405 End Date: 09/30/2015 20:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-155405/1		09/30/2015 10:50	1	60930001.D	DB-624 0.18 (mm)
CCVIS 180-155405/2		09/30/2015 11:30	1	60930002.D	DB-624 0.18 (mm)
CCV 180-155405/3		09/30/2015 11:54	1	60930003.D	DB-624 0.18 (mm)
ZZZZZ		09/30/2015 12:19	1		DB-624 0.18 (mm)
MB 180-155405/5		09/30/2015 12:44	1	60930005.D	DB-624 0.18 (mm)
ZZZZZ		09/30/2015 13:24	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 13:48	1		DB-624 0.18 (mm)
LCS 180-155405/8		09/30/2015 14:13	1	60930008.D	DB-624 0.18 (mm)
ZZZZZ		09/30/2015 14:37	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 15:02	1		DB-624 0.18 (mm)
180-47984-2	HD-MW-28-0/1-0	09/30/2015 15:50	1	60930012.D	DB-624 0.18 (mm)
180-47984-3 DL	HD-MW-32D-0/1-0 DL	09/30/2015 16:14	50	60930013.D	DB-624 0.18 (mm)
ZZZZZ		09/30/2015 16:39	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 17:03	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 17:27	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 17:52	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 18:16	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 18:41	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 19:05	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 19:29	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 19:54	1		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 20:18	10		DB-624 0.18 (mm)
ZZZZZ		09/30/2015 20:42	1		DB-624 0.18 (mm)



# Shipping and Receiving Documents

# Chain of Custody Record

Project Manager: Jennifer S. Reese  
Tel/Fax: 717-901-8181 / (717) 657-1611

Analysis Turnaround Time  
Calendar (C) or Work Days (W) \_\_\_\_\_  
TAT: if different from Below: Standard

Site Contact: Jennifer S. Reese  
Lab Contact: Carrie Gamber


Date Submitted: 9/21/2015  
Carrier: FEDEX

COC No: TAP2015092101  
of 1 COCs

Job No. 10012.27

Container No. 1

SDG No.

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Sample Specific Notes:
HD-MW-3-0/1-0	9/21/15	9:30	Groundwater	Water	3	
HD-MW-3-0/1-0 MS	9/21/15	9:30	Groundwater	Water	3	
HD-MW-3-0/1-0 MSD	9/21/15	9:30	Groundwater	Water	3	
HD-MW-28-0/1-0	9/21/15	10:31	Groundwater	Water	3	
HD-MW-32D-0/1-0	9/21/15	12:57	Groundwater	Water	3	
HD-MW-32S-0/1-0	9/21/15	14:18	Groundwater	Water	3	
HD-QC2-0/1-1	9/21/15	8:00	Groundwater	Water	3	
HD-QC5-0/1-2	9/21/15	12:00	Trip Blank	Water	2	
 180-47984 Chain of Custody						
Total CR 6+ (SW846 7196A)						
Dissolved Cr 6+ (SW846 7196A)						
1,4-Dioxane (SW846 8270D TL)						
VOCs (8260)						
Number of Containers						3 1 1 2
Preservation Used: 1=Ice, 2=HCL, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved, 7=Zinc Acetate & NaOH						2 1 1 1
Field Filter						N N Y N

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 \_\_\_\_\_ Months

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by (Print and Sign): *[Signature]* Company: GSC  
 Relinquished by: *[Signature]* Company: TAP  
 Relinquished by: *[Signature]* Company: TAP

Date/Time: 9/21/15 1540  
 Date/Time: 9/21/15 1540  
 Date/Time: 9/21/15 1540



180-47984 Waybill

ORIGIN ID: KPDA  
SAMPLE RECEIPT (610) 337-9992  
TEST AMERICA  
1008 WEST 9TH AVE  
KING OF PRUSSIA PA 19406  
UNITED STATES US

SHIP DATE: 21SEP15  
ACTWT: 27.00 LB  
CAD: 8490299/INET3670  
BILL RECIPIENT

TO: SAMPLE RECEIPT  
TEST AMERICA - PITTSBURGH  
301 ALPHA DR  
PITTSBURGH PA 15238  
(412) 963-7058



TRK# 7745 5984 5324  
0201

EV AGCA

TUE - 22 SEP AA  
STANDARD OVERNIGHT

15238  
PA-US PIT



Uncorrected temp  
Thermometer ID

5.9 °C

CF Initials

LB

PT-WI-SR-001 effective 7/26/13

Part #: 158297-435 RITZ 07/15

# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-47984-1

**Login Number: 47984**  
**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.	True	
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.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	