

ANALYTICAL REPORT

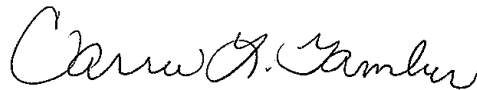
Job Number: 180-72047-1

Job Description: Harley Davidson

For:

Groundwater Sciences Corporation
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Attention: Christopher O'Neil



Approved for release.
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11/22/2017 11:35 AM

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11/22/2017

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Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
^c	CCV Recovery is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.
X	Surrogate is outside control limits
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-72047-1

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 11/3/2017 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

The Chain-of-Custody (COC) was incomplete as received. The sampler's name is not listed on the COC.

VOLATILES

The following samples were diluted to bring the concentration of target analytes within the calibration range: HD-MW-184S-0/1-0 (180-72047-2), HD-MW-181D-0/1-0 (180-72047-3), and HD-MW-136A-459.5/460.0 (180-72047-4). Elevated reporting limits (RLs) are provided.

Reanalysis of the following samples was performed outside of the analytical holding time due to the dilutions required: HD-MW-184S-0/1-0 (180-72047-2), HD-MW-184S-0/1-0 (180-72047-2) re-analysis, HD-MW-181D-0/1-0 (180-72047-3) and HD-MW-136A-459.5/460.0 (180-72047-4).

4-Bromofluorobenzene (Surr) failed the surrogate recovery criteria low for HD-MW-181D-0/1-0 (180-72047-3). This sample was re-analyzed outside the holding time. Both sets of results were reported.

Surrogates recovered outside QC limits for sample HD-MW-184S-0/1-0 (180-72047-2) in the 5X dilution run which was outside the holding time. This sample was re-analyzed outside the holding time and all surrogates recovered within QC limits.

The following analytes recovered outside control limits for the LCS associated with analytical batch 180-228704: Acrylonitrile and Chloromethane. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

The following analytes recovered outside control limits for the LCS associated with analytical batch 180-229098: Tetrachloroethene and Trichloroethene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

The continuing calibration verification (CCV) analyzed in batch 180-228704 was outside the method criteria for the following analyte(s): 2-Butanone, 1,4-Dioxane, Acetone and Trichloroethene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-228816 was outside the method criteria for the following analyte(s): 1,4-Dioxane, Bromomethane, Chloroethane and Chloromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 180-229098 was outside the method criteria for the following analyte(s): 1,4-Dioxane, Bromomethane and Trichloroethene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

Client Sample ID: HD-MW-182-0/1-0

Lab Sample ID: 180-72047-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.2		1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	15		1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-184S-0/1-0

Lab Sample ID: 180-72047-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	31	^c	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene	65	E	1.0	0.47	ug/L	1		8260C	Total/NA
Trichloroethene - DL	20		5.0	3.4	ug/L	5		8260C	Total/NA
Tetrachloroethene - DL	39		5.0	2.3	ug/L	5		8260C	Total/NA
Trichloroethene - RADL	18	H ^c *	5.0	3.4	ug/L	5		8260C	Total/NA
Tetrachloroethene - RADL	38	H *	5.0	2.3	ug/L	5		8260C	Total/NA

Client Sample ID: HD-MW-181D-0/1-0

Lab Sample ID: 180-72047-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	45		10	6.9	ug/L	10		8260C	Total/NA
Tetrachloroethene	91		10	4.7	ug/L	10		8260C	Total/NA
Methylene Chloride - DL	0.59	J H	1.0	0.36	ug/L	1		8260C	Total/NA
Trichloroethene - DL	7.9	H ^c *	1.0	0.69	ug/L	1		8260C	Total/NA
Tetrachloroethene - DL	6.4	H *	1.0	0.47	ug/L	1		8260C	Total/NA

Client Sample ID: HD-MW-136A-459.5/460.0

Lab Sample ID: 180-72047-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	18		1.0	0.88	ug/L	1		8260C	Total/NA
Chloroethane	1.1		1.0	0.90	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	4.8		1.0	0.55	ug/L	1		8260C	Total/NA
Acetone	14	^c	5.0	3.4	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	6.8		1.0	0.67	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	5.8		1.0	0.63	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	930	E	1.0	0.71	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.2		1.0	0.60	ug/L	1		8260C	Total/NA
Trichloroethene	620	E ^c	1.0	0.69	ug/L	1		8260C	Total/NA
Toluene	0.49	J	1.0	0.46	ug/L	1		8260C	Total/NA
Tetrachloroethene	28		1.0	0.47	ug/L	1		8260C	Total/NA
Acrylonitrile	77	*	20	7.8	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene - DL	2300	H	100	71	ug/L	100		8260C	Total/NA
Trichloroethene - DL	600	H ^c *	100	69	ug/L	100		8260C	Total/NA

Client Sample ID: HD-QC8-0/1-2

Lab Sample ID: 180-72047-5

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: 180-72047-1

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

Client Sample ID: HD-MW-182-0/1-0

Date Collected: 11/01/17 09:20

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U ^c	1.0	0.90	ug/L			11/14/17 04:14	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/14/17 04:14	1
Bromomethane	1.0	U ^c	1.0	0.89	ug/L			11/14/17 04:14	1
Chloroethane	1.0	U ^c	1.0	0.90	ug/L			11/14/17 04:14	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/14/17 04:14	1
Acetone	5.0	U	5.0	3.4	ug/L			11/14/17 04:14	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/14/17 04:14	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/14/17 04:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/14/17 04:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/14/17 04:14	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/14/17 04:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/14/17 04:14	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/14/17 04:14	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/14/17 04:14	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/14/17 04:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/14/17 04:14	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/14/17 04:14	1
Benzene	1.0	U	1.0	0.60	ug/L			11/14/17 04:14	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/14/17 04:14	1
Trichloroethene	1.2		1.0	0.69	ug/L			11/14/17 04:14	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/14/17 04:14	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/14/17 04:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/14/17 04:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/14/17 04:14	1
Toluene	1.0	U	1.0	0.46	ug/L			11/14/17 04:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/14/17 04:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/14/17 04:14	1
Tetrachloroethene	15		1.0	0.47	ug/L			11/14/17 04:14	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/14/17 04:14	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/14/17 04:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/14/17 04:14	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/14/17 04:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/14/17 04:14	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/14/17 04:14	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/14/17 04:14	1
Styrene	1.0	U	1.0	0.47	ug/L			11/14/17 04:14	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/14/17 04:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/14/17 04:14	1
Acrylonitrile	20	U	20	7.8	ug/L			11/14/17 04:14	1
1,4-Dioxane	200	U	200	14	ug/L			11/14/17 04:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		65 - 121		11/14/17 04:14	1
Toluene-d8 (Surr)	93		73 - 120		11/14/17 04:14	1
4-Bromofluorobenzene (Surr)	83		80 - 120		11/14/17 04:14	1
Dibromofluoromethane (Surr)	102		73 - 120		11/14/17 04:14	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-184S-0/1-0

Date Collected: 11/01/17 09:15

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U*	1.0	0.90	ug/L			11/12/17 23:19	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/12/17 23:19	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/12/17 23:19	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/12/17 23:19	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/12/17 23:19	1
Acetone	5.0	U ^c	5.0	3.4	ug/L			11/12/17 23:19	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/12/17 23:19	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/12/17 23:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/12/17 23:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/12/17 23:19	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/12/17 23:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/12/17 23:19	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/12/17 23:19	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/12/17 23:19	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/12/17 23:19	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/12/17 23:19	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/12/17 23:19	1
Benzene	1.0	U	1.0	0.60	ug/L			11/12/17 23:19	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/12/17 23:19	1
Trichloroethene	31	^c	1.0	0.69	ug/L			11/12/17 23:19	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/12/17 23:19	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/12/17 23:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/12/17 23:19	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/12/17 23:19	1
Toluene	1.0	U	1.0	0.46	ug/L			11/12/17 23:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/12/17 23:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/12/17 23:19	1
Tetrachloroethene	65	E	1.0	0.47	ug/L			11/12/17 23:19	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/12/17 23:19	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/12/17 23:19	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/12/17 23:19	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/12/17 23:19	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/12/17 23:19	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/12/17 23:19	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/12/17 23:19	1
Styrene	1.0	U	1.0	0.47	ug/L			11/12/17 23:19	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/12/17 23:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/12/17 23:19	1
Acrylonitrile	20	U*	20	7.8	ug/L			11/12/17 23:19	1
1,4-Dioxane	200	U	200	14	ug/L			11/12/17 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	116		65 - 121		11/12/17 23:19	1
Toluene-d8 (Surr)	91		73 - 120		11/12/17 23:19	1
4-Bromofluorobenzene (Surr)	80		80 - 120		11/12/17 23:19	1
Dibromofluoromethane (Surr)	109		73 - 120		11/12/17 23:19	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-181D-0/1-0

Date Collected: 11/01/17 09:00

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U ^c	10	9.0	ug/L			11/14/17 09:01	10
Vinyl chloride	10	U	10	8.8	ug/L			11/14/17 09:01	10
Bromomethane	10	U ^c	10	8.9	ug/L			11/14/17 09:01	10
Chloroethane	10	U ^c	10	9.0	ug/L			11/14/17 09:01	10
1,1-Dichloroethene	10	U	10	5.5	ug/L			11/14/17 09:01	10
Acetone	50	U	50	34	ug/L			11/14/17 09:01	10
Carbon disulfide	10	U	10	8.8	ug/L			11/14/17 09:01	10
Methylene Chloride	10	U	10	3.6	ug/L			11/14/17 09:01	10
trans-1,2-Dichloroethene	10	U	10	6.7	ug/L			11/14/17 09:01	10
Methyl tert-butyl ether	10	U	10	5.9	ug/L			11/14/17 09:01	10
1,1-Dichloroethane	10	U	10	6.3	ug/L			11/14/17 09:01	10
cis-1,2-Dichloroethene	10	U	10	7.1	ug/L			11/14/17 09:01	10
Bromochloromethane	10	U	10	6.3	ug/L			11/14/17 09:01	10
2-Butanone (MEK)	50	U	50	26	ug/L			11/14/17 09:01	10
Chloroform	10	U	10	6.0	ug/L			11/14/17 09:01	10
1,1,1-Trichloroethane	10	U	10	6.0	ug/L			11/14/17 09:01	10
Carbon tetrachloride	10	U	10	8.8	ug/L			11/14/17 09:01	10
Benzene	10	U	10	6.0	ug/L			11/14/17 09:01	10
1,2-Dichloroethane	10	U	10	5.7	ug/L			11/14/17 09:01	10
Trichloroethene	45		10	6.9	ug/L			11/14/17 09:01	10
1,2-Dichloropropane	10	U	10	6.6	ug/L			11/14/17 09:01	10
Bromodichloromethane	10	U	10	6.4	ug/L			11/14/17 09:01	10
cis-1,3-Dichloropropene	10	U	10	5.9	ug/L			11/14/17 09:01	10
4-Methyl-2-pentanone (MIBK)	50	U	50	31	ug/L			11/14/17 09:01	10
Toluene	10	U	10	4.6	ug/L			11/14/17 09:01	10
trans-1,3-Dichloropropene	10	U	10	5.8	ug/L			11/14/17 09:01	10
1,1,2-Trichloroethane	10	U	10	4.5	ug/L			11/14/17 09:01	10
Tetrachloroethene	91		10	4.7	ug/L			11/14/17 09:01	10
2-Hexanone	50	U	50	33	ug/L			11/14/17 09:01	10
Dibromochloromethane	10	U	10	8.4	ug/L			11/14/17 09:01	10
1,2-Dibromoethane (EDB)	10	U	10	5.0	ug/L			11/14/17 09:01	10
Chlorobenzene	10	U	10	5.0	ug/L			11/14/17 09:01	10
1,1,1,2-Tetrachloroethane	10	U	10	5.7	ug/L			11/14/17 09:01	10
Ethylbenzene	10	U	10	5.1	ug/L			11/14/17 09:01	10
Xylenes, Total	20	U	20	8.9	ug/L			11/14/17 09:01	10
Styrene	10	U	10	4.7	ug/L			11/14/17 09:01	10
Bromoform	10	U	10	9.8	ug/L			11/14/17 09:01	10
1,1,2,2-Tetrachloroethane	10	U	10	6.0	ug/L			11/14/17 09:01	10
Acrylonitrile	200	U	200	78	ug/L			11/14/17 09:01	10
1,4-Dioxane	2000	U	2000	140	ug/L			11/14/17 09:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		65 - 121		11/14/17 09:01	10
Toluene-d8 (Surr)	92		73 - 120		11/14/17 09:01	10
4-Bromofluorobenzene (Surr)	76	X	80 - 120		11/14/17 09:01	10
Dibromofluoromethane (Surr)	114		73 - 120		11/14/17 09:01	10

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-136A-459.5/460.0

Lab Sample ID: 180-72047-4

Date Collected: 11/01/17 09:10

Matrix: Water

Date Received: 11/03/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U*	1.0	0.90	ug/L			11/13/17 00:07	1
Vinyl chloride	18		1.0	0.88	ug/L			11/13/17 00:07	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/13/17 00:07	1
Chloroethane	1.1		1.0	0.90	ug/L			11/13/17 00:07	1
1,1-Dichloroethene	4.8		1.0	0.55	ug/L			11/13/17 00:07	1
Acetone	14	^c	5.0	3.4	ug/L			11/13/17 00:07	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/13/17 00:07	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/13/17 00:07	1
trans-1,2-Dichloroethene	6.8		1.0	0.67	ug/L			11/13/17 00:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/13/17 00:07	1
1,1-Dichloroethane	5.8		1.0	0.63	ug/L			11/13/17 00:07	1
cis-1,2-Dichloroethene	930	E	1.0	0.71	ug/L			11/13/17 00:07	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/13/17 00:07	1
2-Butanone (MEK)	5.0	U ^c	5.0	2.6	ug/L			11/13/17 00:07	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/13/17 00:07	1
1,1,1-Trichloroethane	1.2		1.0	0.60	ug/L			11/13/17 00:07	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/13/17 00:07	1
Benzene	1.0	U	1.0	0.60	ug/L			11/13/17 00:07	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/13/17 00:07	1
Trichloroethene	620	E ^c	1.0	0.69	ug/L			11/13/17 00:07	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/13/17 00:07	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/13/17 00:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/13/17 00:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/13/17 00:07	1
Toluene	0.49	J	1.0	0.46	ug/L			11/13/17 00:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/13/17 00:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/13/17 00:07	1
Tetrachloroethene	28		1.0	0.47	ug/L			11/13/17 00:07	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/13/17 00:07	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/13/17 00:07	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/13/17 00:07	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/13/17 00:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/13/17 00:07	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/13/17 00:07	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/13/17 00:07	1
Styrene	1.0	U	1.0	0.47	ug/L			11/13/17 00:07	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/13/17 00:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/13/17 00:07	1
Acrylonitrile	77	*	20	7.8	ug/L			11/13/17 00:07	1
1,4-Dioxane	200	U	200	14	ug/L			11/13/17 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		65 - 121		11/13/17 00:07	1
Toluene-d8 (Surr)	97		73 - 120		11/13/17 00:07	1
4-Bromofluorobenzene (Surr)	99		80 - 120		11/13/17 00:07	1
Dibromofluoromethane (Surr)	105		73 - 120		11/13/17 00:07	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-QC8-0/1-2

Date Collected: 11/01/17 12:00

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U*	1.0	0.90	ug/L			11/12/17 21:42	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/12/17 21:42	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/12/17 21:42	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/12/17 21:42	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/12/17 21:42	1
Acetone	5.0	U^c	5.0	3.4	ug/L			11/12/17 21:42	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/12/17 21:42	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/12/17 21:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/12/17 21:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/12/17 21:42	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/12/17 21:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/12/17 21:42	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/12/17 21:42	1
2-Butanone (MEK)	5.0	U^c	5.0	2.6	ug/L			11/12/17 21:42	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/12/17 21:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/12/17 21:42	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/12/17 21:42	1
Benzene	1.0	U	1.0	0.60	ug/L			11/12/17 21:42	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/12/17 21:42	1
Trichloroethene	1.0	U^c	1.0	0.69	ug/L			11/12/17 21:42	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/12/17 21:42	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/12/17 21:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/12/17 21:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/12/17 21:42	1
Toluene	1.0	U	1.0	0.46	ug/L			11/12/17 21:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/12/17 21:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/12/17 21:42	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/12/17 21:42	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/12/17 21:42	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/12/17 21:42	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/12/17 21:42	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/12/17 21:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/12/17 21:42	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/12/17 21:42	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/12/17 21:42	1
Styrene	1.0	U	1.0	0.47	ug/L			11/12/17 21:42	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/12/17 21:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/12/17 21:42	1
Acrylonitrile	20	U*	20	7.8	ug/L			11/12/17 21:42	1
1,4-Dioxane	200	U	200	14	ug/L			11/12/17 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		65 - 121		11/12/17 21:42	1
Toluene-d8 (Surr)	90		73 - 120		11/12/17 21:42	1
4-Bromofluorobenzene (Surr)	83		80 - 120		11/12/17 21:42	1
Dibromofluoromethane (Surr)	109		73 - 120		11/12/17 21:42	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-184S-0/1-0

Date Collected: 11/01/17 09:15

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U ^c	5.0	4.5	ug/L			11/14/17 08:37	5
Vinyl chloride	5.0	U	5.0	4.4	ug/L			11/14/17 08:37	5
Bromomethane	5.0	U ^c	5.0	4.4	ug/L			11/14/17 08:37	5
Chloroethane	5.0	U ^c	5.0	4.5	ug/L			11/14/17 08:37	5
1,1-Dichloroethene	5.0	U	5.0	2.8	ug/L			11/14/17 08:37	5
Acetone	25	U	25	17	ug/L			11/14/17 08:37	5
Carbon disulfide	5.0	U	5.0	4.4	ug/L			11/14/17 08:37	5
Methylene Chloride	5.0	U	5.0	1.8	ug/L			11/14/17 08:37	5
trans-1,2-Dichloroethene	5.0	U	5.0	3.4	ug/L			11/14/17 08:37	5
Methyl tert-butyl ether	5.0	U	5.0	3.0	ug/L			11/14/17 08:37	5
1,1-Dichloroethane	5.0	U	5.0	3.1	ug/L			11/14/17 08:37	5
cis-1,2-Dichloroethene	5.0	U	5.0	3.5	ug/L			11/14/17 08:37	5
Bromochloromethane	5.0	U	5.0	3.1	ug/L			11/14/17 08:37	5
2-Butanone (MEK)	25	U	25	13	ug/L			11/14/17 08:37	5
Chloroform	5.0	U	5.0	3.0	ug/L			11/14/17 08:37	5
1,1,1-Trichloroethane	5.0	U	5.0	3.0	ug/L			11/14/17 08:37	5
Carbon tetrachloride	5.0	U	5.0	4.4	ug/L			11/14/17 08:37	5
Benzene	5.0	U	5.0	3.0	ug/L			11/14/17 08:37	5
1,2-Dichloroethane	5.0	U	5.0	2.9	ug/L			11/14/17 08:37	5
Trichloroethene	20		5.0	3.4	ug/L			11/14/17 08:37	5
1,2-Dichloropropane	5.0	U	5.0	3.3	ug/L			11/14/17 08:37	5
Bromodichloromethane	5.0	U	5.0	3.2	ug/L			11/14/17 08:37	5
cis-1,3-Dichloropropene	5.0	U	5.0	3.0	ug/L			11/14/17 08:37	5
4-Methyl-2-pentanone (MIBK)	25	U	25	15	ug/L			11/14/17 08:37	5
Toluene	5.0	U	5.0	2.3	ug/L			11/14/17 08:37	5
trans-1,3-Dichloropropene	5.0	U	5.0	2.9	ug/L			11/14/17 08:37	5
1,1,2-Trichloroethane	5.0	U	5.0	2.3	ug/L			11/14/17 08:37	5
Tetrachloroethene	39		5.0	2.3	ug/L			11/14/17 08:37	5
2-Hexanone	25	U	25	16	ug/L			11/14/17 08:37	5
Dibromochloromethane	5.0	U	5.0	4.2	ug/L			11/14/17 08:37	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	2.5	ug/L			11/14/17 08:37	5
Chlorobenzene	5.0	U	5.0	2.5	ug/L			11/14/17 08:37	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.9	ug/L			11/14/17 08:37	5
Ethylbenzene	5.0	U	5.0	2.5	ug/L			11/14/17 08:37	5
Xylenes, Total	10	U	10	4.5	ug/L			11/14/17 08:37	5
Styrene	5.0	U	5.0	2.4	ug/L			11/14/17 08:37	5
Bromoform	5.0	U	5.0	4.9	ug/L			11/14/17 08:37	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	3.0	ug/L			11/14/17 08:37	5
Acrylonitrile	100	U	100	39	ug/L			11/14/17 08:37	5
1,4-Dioxane	1000	U	1000	68	ug/L			11/14/17 08:37	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	122	X	65 - 121		11/14/17 08:37	5
Toluene-d8 (Surr)	93		73 - 120		11/14/17 08:37	5
4-Bromofluorobenzene (Surr)	78	X	80 - 120		11/14/17 08:37	5
Dibromofluoromethane (Surr)	117		73 - 120		11/14/17 08:37	5

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-181D-0/1-0

Date Collected: 11/01/17 09:00

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U H	1.0	0.90	ug/L			11/16/17 11:58	1
Vinyl chloride	1.0	U H	1.0	0.88	ug/L			11/16/17 11:58	1
Bromomethane	1.0	U H ^c	1.0	0.89	ug/L			11/16/17 11:58	1
Chloroethane	1.0	U H	1.0	0.90	ug/L			11/16/17 11:58	1
1,1-Dichloroethene	1.0	U H	1.0	0.55	ug/L			11/16/17 11:58	1
Acetone	5.0	U H	5.0	3.4	ug/L			11/16/17 11:58	1
Carbon disulfide	1.0	U H	1.0	0.88	ug/L			11/16/17 11:58	1
Methylene Chloride	0.59	J H	1.0	0.36	ug/L			11/16/17 11:58	1
trans-1,2-Dichloroethene	1.0	U H	1.0	0.67	ug/L			11/16/17 11:58	1
Methyl tert-butyl ether	1.0	U H	1.0	0.59	ug/L			11/16/17 11:58	1
1,1-Dichloroethane	1.0	U H	1.0	0.63	ug/L			11/16/17 11:58	1
cis-1,2-Dichloroethene	1.0	U H	1.0	0.71	ug/L			11/16/17 11:58	1
Bromochloromethane	1.0	U H	1.0	0.63	ug/L			11/16/17 11:58	1
2-Butanone (MEK)	5.0	U H	5.0	2.6	ug/L			11/16/17 11:58	1
Chloroform	1.0	U H	1.0	0.60	ug/L			11/16/17 11:58	1
1,1,1-Trichloroethane	1.0	U H	1.0	0.60	ug/L			11/16/17 11:58	1
Carbon tetrachloride	1.0	U H	1.0	0.88	ug/L			11/16/17 11:58	1
Benzene	1.0	U H	1.0	0.60	ug/L			11/16/17 11:58	1
1,2-Dichloroethane	1.0	U H	1.0	0.57	ug/L			11/16/17 11:58	1
Trichloroethene	7.9	H ^c *	1.0	0.69	ug/L			11/16/17 11:58	1
1,2-Dichloropropane	1.0	U H	1.0	0.66	ug/L			11/16/17 11:58	1
Bromodichloromethane	1.0	U H	1.0	0.64	ug/L			11/16/17 11:58	1
cis-1,3-Dichloropropene	1.0	U H	1.0	0.59	ug/L			11/16/17 11:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U H	5.0	3.1	ug/L			11/16/17 11:58	1
Toluene	1.0	U H	1.0	0.46	ug/L			11/16/17 11:58	1
trans-1,3-Dichloropropene	1.0	U H	1.0	0.58	ug/L			11/16/17 11:58	1
1,1,2-Trichloroethane	1.0	U H	1.0	0.45	ug/L			11/16/17 11:58	1
Tetrachloroethene	6.4	H *	1.0	0.47	ug/L			11/16/17 11:58	1
2-Hexanone	5.0	U H	5.0	3.3	ug/L			11/16/17 11:58	1
Dibromochloromethane	1.0	U H	1.0	0.84	ug/L			11/16/17 11:58	1
1,2-Dibromoethane (EDB)	1.0	U H	1.0	0.50	ug/L			11/16/17 11:58	1
Chlorobenzene	1.0	U H	1.0	0.50	ug/L			11/16/17 11:58	1
1,1,1,2-Tetrachloroethane	1.0	U H	1.0	0.57	ug/L			11/16/17 11:58	1
Ethylbenzene	1.0	U H	1.0	0.51	ug/L			11/16/17 11:58	1
Xylenes, Total	2.0	U H	2.0	0.89	ug/L			11/16/17 11:58	1
Styrene	1.0	U H	1.0	0.47	ug/L			11/16/17 11:58	1
Bromoform	1.0	U H	1.0	0.98	ug/L			11/16/17 11:58	1
1,1,2,2-Tetrachloroethane	1.0	U H	1.0	0.60	ug/L			11/16/17 11:58	1
Acrylonitrile	20	U H	20	7.8	ug/L			11/16/17 11:58	1
1,4-Dioxane	200	U H	200	14	ug/L			11/16/17 11:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		65 - 121		11/16/17 11:58	1
Toluene-d8 (Surr)	97		73 - 120		11/16/17 11:58	1
4-Bromofluorobenzene (Surr)	86		80 - 120		11/16/17 11:58	1
Dibromofluoromethane (Surr)	100		73 - 120		11/16/17 11:58	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-136A-459.5/460.0

Lab Sample ID: 180-72047-4

Date Collected: 11/01/17 09:10

Matrix: Water

Date Received: 11/03/17 08:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	100	U H	100	90	ug/L			11/16/17 10:21	100
Vinyl chloride	100	U H	100	88	ug/L			11/16/17 10:21	100
Bromomethane	100	U H ^c	100	89	ug/L			11/16/17 10:21	100
Chloroethane	100	U H	100	90	ug/L			11/16/17 10:21	100
1,1-Dichloroethene	100	U H	100	55	ug/L			11/16/17 10:21	100
Acetone	500	U H	500	340	ug/L			11/16/17 10:21	100
Carbon disulfide	100	U H	100	88	ug/L			11/16/17 10:21	100
Methylene Chloride	100	U H	100	36	ug/L			11/16/17 10:21	100
trans-1,2-Dichloroethene	100	U H	100	67	ug/L			11/16/17 10:21	100
Methyl tert-butyl ether	100	U H	100	59	ug/L			11/16/17 10:21	100
1,1-Dichloroethane	100	U H	100	63	ug/L			11/16/17 10:21	100
cis-1,2-Dichloroethene	2300	H	100	71	ug/L			11/16/17 10:21	100
Bromochloromethane	100	U H	100	63	ug/L			11/16/17 10:21	100
2-Butanone (MEK)	500	U H	500	260	ug/L			11/16/17 10:21	100
Chloroform	100	U H	100	60	ug/L			11/16/17 10:21	100
1,1,1-Trichloroethane	100	U H	100	60	ug/L			11/16/17 10:21	100
Carbon tetrachloride	100	U H	100	88	ug/L			11/16/17 10:21	100
Benzene	100	U H	100	60	ug/L			11/16/17 10:21	100
1,2-Dichloroethane	100	U H	100	57	ug/L			11/16/17 10:21	100
Trichloroethene	600	H ^c *	100	69	ug/L			11/16/17 10:21	100
1,2-Dichloropropane	100	U H	100	66	ug/L			11/16/17 10:21	100
Bromodichloromethane	100	U H	100	64	ug/L			11/16/17 10:21	100
cis-1,3-Dichloropropene	100	U H	100	59	ug/L			11/16/17 10:21	100
4-Methyl-2-pentanone (MIBK)	500	U H	500	310	ug/L			11/16/17 10:21	100
Toluene	100	U H	100	46	ug/L			11/16/17 10:21	100
trans-1,3-Dichloropropene	100	U H	100	58	ug/L			11/16/17 10:21	100
1,1,2-Trichloroethane	100	U H	100	45	ug/L			11/16/17 10:21	100
Tetrachloroethene	100	U H *	100	47	ug/L			11/16/17 10:21	100
2-Hexanone	500	U H	500	330	ug/L			11/16/17 10:21	100
Dibromochloromethane	100	U H	100	84	ug/L			11/16/17 10:21	100
1,2-Dibromoethane (EDB)	100	U H	100	50	ug/L			11/16/17 10:21	100
Chlorobenzene	100	U H	100	50	ug/L			11/16/17 10:21	100
1,1,1,2-Tetrachloroethane	100	U H	100	57	ug/L			11/16/17 10:21	100
Ethylbenzene	100	U H	100	51	ug/L			11/16/17 10:21	100
Xylenes, Total	200	U H	200	89	ug/L			11/16/17 10:21	100
Styrene	100	U H	100	47	ug/L			11/16/17 10:21	100
Bromoform	100	U H	100	98	ug/L			11/16/17 10:21	100
1,1,2,2-Tetrachloroethane	100	U H	100	60	ug/L			11/16/17 10:21	100
Acrylonitrile	2000	U H	2000	780	ug/L			11/16/17 10:21	100
1,4-Dioxane	20000	U H	20000	1400	ug/L			11/16/17 10:21	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		65 - 121		11/16/17 10:21	100
Toluene-d8 (Surr)	95		73 - 120		11/16/17 10:21	100
4-Bromofluorobenzene (Surr)	90		80 - 120		11/16/17 10:21	100
Dibromofluoromethane (Surr)	99		73 - 120		11/16/17 10:21	100

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Client Sample ID: HD-MW-184S-0/1-0

Date Collected: 11/01/17 09:15

Date Received: 11/03/17 08:45

Lab Sample ID: 180-72047-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U H	5.0	4.5	ug/L			11/16/17 09:33	5
Vinyl chloride	5.0	U H	5.0	4.4	ug/L			11/16/17 09:33	5
Bromomethane	5.0	U H ^c	5.0	4.4	ug/L			11/16/17 09:33	5
Chloroethane	5.0	U H	5.0	4.5	ug/L			11/16/17 09:33	5
1,1-Dichloroethene	5.0	U H	5.0	2.8	ug/L			11/16/17 09:33	5
Acetone	25	U H	25	17	ug/L			11/16/17 09:33	5
Carbon disulfide	5.0	U H	5.0	4.4	ug/L			11/16/17 09:33	5
Methylene Chloride	5.0	U H	5.0	1.8	ug/L			11/16/17 09:33	5
trans-1,2-Dichloroethene	5.0	U H	5.0	3.4	ug/L			11/16/17 09:33	5
Methyl tert-butyl ether	5.0	U H	5.0	3.0	ug/L			11/16/17 09:33	5
1,1-Dichloroethane	5.0	U H	5.0	3.1	ug/L			11/16/17 09:33	5
cis-1,2-Dichloroethene	5.0	U H	5.0	3.5	ug/L			11/16/17 09:33	5
Bromochloromethane	5.0	U H	5.0	3.1	ug/L			11/16/17 09:33	5
2-Butanone (MEK)	25	U H	25	13	ug/L			11/16/17 09:33	5
Chloroform	5.0	U H	5.0	3.0	ug/L			11/16/17 09:33	5
1,1,1-Trichloroethane	5.0	U H	5.0	3.0	ug/L			11/16/17 09:33	5
Carbon tetrachloride	5.0	U H	5.0	4.4	ug/L			11/16/17 09:33	5
Benzene	5.0	U H	5.0	3.0	ug/L			11/16/17 09:33	5
1,2-Dichloroethane	5.0	U H	5.0	2.9	ug/L			11/16/17 09:33	5
Trichloroethene	18	H ^c *	5.0	3.4	ug/L			11/16/17 09:33	5
1,2-Dichloropropane	5.0	U H	5.0	3.3	ug/L			11/16/17 09:33	5
Bromodichloromethane	5.0	U H	5.0	3.2	ug/L			11/16/17 09:33	5
cis-1,3-Dichloropropene	5.0	U H	5.0	3.0	ug/L			11/16/17 09:33	5
4-Methyl-2-pentanone (MIBK)	25	U H	25	15	ug/L			11/16/17 09:33	5
Toluene	5.0	U H	5.0	2.3	ug/L			11/16/17 09:33	5
trans-1,3-Dichloropropene	5.0	U H	5.0	2.9	ug/L			11/16/17 09:33	5
1,1,2-Trichloroethane	5.0	U H	5.0	2.3	ug/L			11/16/17 09:33	5
Tetrachloroethene	38	H *	5.0	2.3	ug/L			11/16/17 09:33	5
2-Hexanone	25	U H	25	16	ug/L			11/16/17 09:33	5
Dibromochloromethane	5.0	U H	5.0	4.2	ug/L			11/16/17 09:33	5
1,2-Dibromoethane (EDB)	5.0	U H	5.0	2.5	ug/L			11/16/17 09:33	5
Chlorobenzene	5.0	U H	5.0	2.5	ug/L			11/16/17 09:33	5
1,1,1,2-Tetrachloroethane	5.0	U H	5.0	2.9	ug/L			11/16/17 09:33	5
Ethylbenzene	5.0	U H	5.0	2.5	ug/L			11/16/17 09:33	5
Xylenes, Total	10	U H	10	4.5	ug/L			11/16/17 09:33	5
Styrene	5.0	U H	5.0	2.4	ug/L			11/16/17 09:33	5
Bromoform	5.0	U H	5.0	4.9	ug/L			11/16/17 09:33	5
1,1,2,2-Tetrachloroethane	5.0	U H	5.0	3.0	ug/L			11/16/17 09:33	5
Acrylonitrile	100	U H	100	39	ug/L			11/16/17 09:33	5
1,4-Dioxane	1000	U H	1000	68	ug/L			11/16/17 09:33	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		65 - 121					11/16/17 09:33	5
Toluene-d8 (Surr)	99		73 - 120					11/16/17 09:33	5
4-Bromofluorobenzene (Surr)	91		80 - 120					11/16/17 09:33	5
Dibromofluoromethane (Surr)	97		73 - 120					11/16/17 09:33	5

Default Detection Limits

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Analyte	RL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.57	ug/L	8260C
1,1,1-Trichloroethane	1.0	0.60	ug/L	8260C
1,1,2,2-Tetrachloroethane	1.0	0.60	ug/L	8260C
1,1,2-Trichloroethane	1.0	0.45	ug/L	8260C
1,1-Dichloroethane	1.0	0.63	ug/L	8260C
1,1-Dichloroethene	1.0	0.55	ug/L	8260C
1,2-Dibromoethane (EDB)	1.0	0.50	ug/L	8260C
1,2-Dichloroethane	1.0	0.57	ug/L	8260C
1,2-Dichloropropane	1.0	0.66	ug/L	8260C
1,4-Dioxane	200	14	ug/L	8260C
2-Butanone (MEK)	5.0	2.6	ug/L	8260C
2-Hexanone	5.0	3.3	ug/L	8260C
4-Methyl-2-pentanone (MIBK)	5.0	3.1	ug/L	8260C
Acetone	5.0	3.4	ug/L	8260C
Acrylonitrile	20	7.8	ug/L	8260C
Benzene	1.0	0.60	ug/L	8260C
Bromochloromethane	1.0	0.63	ug/L	8260C
Bromodichloromethane	1.0	0.64	ug/L	8260C
Bromoform	1.0	0.98	ug/L	8260C
Bromomethane	1.0	0.89	ug/L	8260C
Carbon disulfide	1.0	0.88	ug/L	8260C
Carbon tetrachloride	1.0	0.88	ug/L	8260C
Chlorobenzene	1.0	0.50	ug/L	8260C
Chloroethane	1.0	0.90	ug/L	8260C
Chloroform	1.0	0.60	ug/L	8260C
Chloromethane	1.0	0.90	ug/L	8260C
cis-1,2-Dichloroethene	1.0	0.71	ug/L	8260C
cis-1,3-Dichloropropene	1.0	0.59	ug/L	8260C
Dibromochloromethane	1.0	0.84	ug/L	8260C
Ethylbenzene	1.0	0.51	ug/L	8260C
Methyl tert-butyl ether	1.0	0.59	ug/L	8260C
Methylene Chloride	1.0	0.36	ug/L	8260C
Styrene	1.0	0.47	ug/L	8260C
Tetrachloroethene	1.0	0.47	ug/L	8260C
Toluene	1.0	0.46	ug/L	8260C
trans-1,2-Dichloroethene	1.0	0.67	ug/L	8260C
trans-1,3-Dichloropropene	1.0	0.58	ug/L	8260C
Trichloroethene	1.0	0.69	ug/L	8260C
Vinyl chloride	1.0	0.88	ug/L	8260C
Xylenes, Total	2.0	0.89	ug/L	8260C

Surrogate Summary

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (65-121)	TOL (73-120)	BFB (80-120)	DBFM (73-120)
180-72047-1	HD-MW-182-0/1-0	109	93	83	102
180-72047-2	HD-MW-184S-0/1-0	116	91	80	109
180-72047-2 - DL	HD-MW-184S-0/1-0	122 X	93	78 X	117
180-72047-2 - RADL	HD-MW-184S-0/1-0	113	99	91	97
180-72047-3	HD-MW-181D-0/1-0	119	92	76 X	114
180-72047-3 - DL	HD-MW-181D-0/1-0	117	97	86	100
180-72047-4	HD-MW-136A-459.5/460.0	107	97	99	105
180-72047-4 - DL	HD-MW-136A-459.5/460.0	111	95	90	99
180-72047-5	HD-QC8-0/1-2	111	90	83	109
LCS 180-228704/4	Lab Control Sample	106	107	100	97
LCS 180-228816/4	Lab Control Sample	103	110	104	99
LCS 180-229098/5	Lab Control Sample	98	111	101	93
MB 180-228704/6	Method Blank	110	93	86	108
MB 180-228816/6	Method Blank	111	97	84	102
MB 180-229098/7	Method Blank	110	103	103	96

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: 180-72047-1

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

Lab Sample ID: MB 180-228704/6

Matrix: Water

Analysis Batch: 228704

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/12/17 19:06	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/12/17 19:06	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/12/17 19:06	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/12/17 19:06	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/12/17 19:06	1
Acetone	5.0	U	5.0	3.4	ug/L			11/12/17 19:06	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/12/17 19:06	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/12/17 19:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/12/17 19:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/12/17 19:06	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/12/17 19:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/12/17 19:06	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/12/17 19:06	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/12/17 19:06	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/12/17 19:06	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/12/17 19:06	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/12/17 19:06	1
Benzene	1.0	U	1.0	0.60	ug/L			11/12/17 19:06	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/12/17 19:06	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/12/17 19:06	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/12/17 19:06	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/12/17 19:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/12/17 19:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/12/17 19:06	1
Toluene	1.0	U	1.0	0.46	ug/L			11/12/17 19:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/12/17 19:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/12/17 19:06	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/12/17 19:06	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/12/17 19:06	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/12/17 19:06	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/12/17 19:06	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/12/17 19:06	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/12/17 19:06	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/12/17 19:06	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/12/17 19:06	1
Styrene	1.0	U	1.0	0.47	ug/L			11/12/17 19:06	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/12/17 19:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/12/17 19:06	1
Acrylonitrile	20	U	20	7.8	ug/L			11/12/17 19:06	1
1,4-Dioxane	200	U	200	14	ug/L			11/12/17 19:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		65 - 121		11/12/17 19:06	1
Toluene-d8 (Surr)	93		73 - 120		11/12/17 19:06	1
4-Bromofluorobenzene (Surr)	86		80 - 120		11/12/17 19:06	1
Dibromofluoromethane (Surr)	108		73 - 120		11/12/17 19:06	1

TestAmerica Pittsburgh

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Lab Sample ID: LCS 180-228704/4
Matrix: Water
Analysis Batch: 228704

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	14.2	*	ug/L		142	49 - 135
Vinyl chloride	10.0	11.9		ug/L		119	52 - 136
Bromomethane	10.0	11.3		ug/L		113	37 - 150
Chloroethane	10.0	13.4		ug/L		134	44 - 139
1,1-Dichloroethene	10.0	11.1		ug/L		111	64 - 131
Acetone	20.0	20.6		ug/L		103	24 - 150
Carbon disulfide	10.0	11.7		ug/L		117	20 - 150
Methylene Chloride	10.0	11.4		ug/L		114	66 - 123
trans-1,2-Dichloroethene	10.0	11.0		ug/L		110	70 - 123
Methyl tert-butyl ether	10.0	11.5		ug/L		115	66 - 130
1,1-Dichloroethane	10.0	11.5		ug/L		115	66 - 122
cis-1,2-Dichloroethene	10.0	10.8		ug/L		108	73 - 120
Bromochloromethane	10.0	11.2		ug/L		112	73 - 122
2-Butanone (MEK)	20.0	20.8		ug/L		104	37 - 150
Chloroform	10.0	10.5		ug/L		105	72 - 123
1,1,1-Trichloroethane	10.0	10.8		ug/L		108	66 - 129
Carbon tetrachloride	10.0	11.1		ug/L		111	58 - 145
Benzene	10.0	10.8		ug/L		108	75 - 123
1,2-Dichloroethane	10.0	12.0		ug/L		120	63 - 130
Trichloroethene	10.0	9.59		ug/L		96	74 - 121
1,2-Dichloropropane	10.0	11.3		ug/L		113	67 - 119
Bromodichloromethane	10.0	10.4		ug/L		104	62 - 127
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	23.1		ug/L		116	41 - 135
Toluene	10.0	11.5		ug/L		115	76 - 129
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	61 - 136
1,1,2-Trichloroethane	10.0	11.8		ug/L		118	74 - 126
Tetrachloroethene	10.0	10.2		ug/L		102	76 - 128
2-Hexanone	20.0	21.4		ug/L		107	37 - 150
Dibromochloromethane	10.0	11.5		ug/L		115	63 - 131
1,2-Dibromoethane (EDB)	10.0	11.3		ug/L		113	76 - 128
Chlorobenzene	10.0	10.7		ug/L		107	79 - 124
1,1,1,2-Tetrachloroethane	10.0	11.2		ug/L		112	70 - 130
Ethylbenzene	10.0	10.4		ug/L		104	77 - 124
Xylenes, Total	20.0	20.4		ug/L		102	76 - 124
Styrene	10.0	10.5		ug/L		105	80 - 125
Bromoform	10.0	10.4		ug/L		104	54 - 136
1,1,2,2-Tetrachloroethane	10.0	10.9		ug/L		109	72 - 128
Acrylonitrile	100	138	*	ug/L		138	60 - 130
1,4-Dioxane	200	184	J	ug/L		92	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		65 - 121
Toluene-d8 (Surr)	107		73 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	97		73 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Lab Sample ID: MB 180-228816/6

Matrix: Water

Analysis Batch: 228816

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/14/17 01:58	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/14/17 01:58	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/14/17 01:58	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/14/17 01:58	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/14/17 01:58	1
Acetone	5.0	U	5.0	3.4	ug/L			11/14/17 01:58	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/14/17 01:58	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/14/17 01:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/14/17 01:58	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/14/17 01:58	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/14/17 01:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/14/17 01:58	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/14/17 01:58	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/14/17 01:58	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/14/17 01:58	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/14/17 01:58	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/14/17 01:58	1
Benzene	1.0	U	1.0	0.60	ug/L			11/14/17 01:58	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/14/17 01:58	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/14/17 01:58	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/14/17 01:58	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/14/17 01:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/14/17 01:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/14/17 01:58	1
Toluene	1.0	U	1.0	0.46	ug/L			11/14/17 01:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/14/17 01:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/14/17 01:58	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/14/17 01:58	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/14/17 01:58	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/14/17 01:58	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/14/17 01:58	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/14/17 01:58	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/14/17 01:58	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/14/17 01:58	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/14/17 01:58	1
Styrene	1.0	U	1.0	0.47	ug/L			11/14/17 01:58	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/14/17 01:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/14/17 01:58	1
Acrylonitrile	20	U	20	7.8	ug/L			11/14/17 01:58	1
1,4-Dioxane	200	U	200	14	ug/L			11/14/17 01:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		65 - 121		11/14/17 01:58	1
Toluene-d8 (Surr)	97		73 - 120		11/14/17 01:58	1
4-Bromofluorobenzene (Surr)	84		80 - 120		11/14/17 01:58	1
Dibromofluoromethane (Surr)	102		73 - 120		11/14/17 01:58	1

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Lab Sample ID: LCS 180-228816/4

Matrix: Water

Analysis Batch: 228816

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	13.2		ug/L		132	49 - 135
Vinyl chloride	10.0	10.2		ug/L		102	52 - 136
Bromomethane	10.0	6.38		ug/L		64	37 - 150
Chloroethane	10.0	13.1		ug/L		131	44 - 139
1,1-Dichloroethene	10.0	10.5		ug/L		105	64 - 131
Acetone	20.0	25.0		ug/L		125	24 - 150
Carbon disulfide	10.0	10.5		ug/L		105	20 - 150
Methylene Chloride	10.0	9.94		ug/L		99	66 - 123
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 123
Methyl tert-butyl ether	10.0	9.53		ug/L		95	66 - 130
1,1-Dichloroethane	10.0	10.2		ug/L		102	66 - 122
cis-1,2-Dichloroethene	10.0	9.59		ug/L		96	73 - 120
Bromochloromethane	10.0	9.44		ug/L		94	73 - 122
2-Butanone (MEK)	20.0	23.5		ug/L		118	37 - 150
Chloroform	10.0	9.64		ug/L		96	72 - 123
1,1,1-Trichloroethane	10.0	9.78		ug/L		98	66 - 129
Carbon tetrachloride	10.0	9.90		ug/L		99	58 - 145
Benzene	10.0	9.44		ug/L		94	75 - 123
1,2-Dichloroethane	10.0	10.1		ug/L		101	63 - 130
Trichloroethene	10.0	8.40		ug/L		84	74 - 121
1,2-Dichloropropane	10.0	9.61		ug/L		96	67 - 119
Bromodichloromethane	10.0	9.01		ug/L		90	62 - 127
cis-1,3-Dichloropropene	10.0	9.29		ug/L		93	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	21.4		ug/L		107	41 - 135
Toluene	10.0	10.5		ug/L		105	76 - 129
trans-1,3-Dichloropropene	10.0	9.94		ug/L		99	61 - 136
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	74 - 126
Tetrachloroethene	10.0	9.28		ug/L		93	76 - 128
2-Hexanone	20.0	21.3		ug/L		106	37 - 150
Dibromochloromethane	10.0	10.4		ug/L		104	63 - 131
1,2-Dibromoethane (EDB)	10.0	9.54		ug/L		95	76 - 128
Chlorobenzene	10.0	9.74		ug/L		97	79 - 124
1,1,1,2-Tetrachloroethane	10.0	10.5		ug/L		105	70 - 130
Ethylbenzene	10.0	9.61		ug/L		96	77 - 124
Xylenes, Total	20.0	18.9		ug/L		95	76 - 124
Styrene	10.0	9.59		ug/L		96	80 - 125
Bromoform	10.0	9.35		ug/L		93	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.85		ug/L		99	72 - 128
Acrylonitrile	100	115		ug/L		115	60 - 130
1,4-Dioxane	200	188	J	ug/L		94	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		65 - 121
Toluene-d8 (Surr)	110		73 - 120
4-Bromofluorobenzene (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	99		73 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Lab Sample ID: MB 180-229098/7
Matrix: Water
Analysis Batch: 229098

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.90	ug/L			11/16/17 03:22	1
Vinyl chloride	1.0	U	1.0	0.88	ug/L			11/16/17 03:22	1
Bromomethane	1.0	U	1.0	0.89	ug/L			11/16/17 03:22	1
Chloroethane	1.0	U	1.0	0.90	ug/L			11/16/17 03:22	1
1,1-Dichloroethene	1.0	U	1.0	0.55	ug/L			11/16/17 03:22	1
Acetone	5.0	U	5.0	3.4	ug/L			11/16/17 03:22	1
Carbon disulfide	1.0	U	1.0	0.88	ug/L			11/16/17 03:22	1
Methylene Chloride	1.0	U	1.0	0.36	ug/L			11/16/17 03:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.67	ug/L			11/16/17 03:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.59	ug/L			11/16/17 03:22	1
1,1-Dichloroethane	1.0	U	1.0	0.63	ug/L			11/16/17 03:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.71	ug/L			11/16/17 03:22	1
Bromochloromethane	1.0	U	1.0	0.63	ug/L			11/16/17 03:22	1
2-Butanone (MEK)	5.0	U	5.0	2.6	ug/L			11/16/17 03:22	1
Chloroform	1.0	U	1.0	0.60	ug/L			11/16/17 03:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.60	ug/L			11/16/17 03:22	1
Carbon tetrachloride	1.0	U	1.0	0.88	ug/L			11/16/17 03:22	1
Benzene	1.0	U	1.0	0.60	ug/L			11/16/17 03:22	1
1,2-Dichloroethane	1.0	U	1.0	0.57	ug/L			11/16/17 03:22	1
Trichloroethene	1.0	U	1.0	0.69	ug/L			11/16/17 03:22	1
1,2-Dichloropropane	1.0	U	1.0	0.66	ug/L			11/16/17 03:22	1
Bromodichloromethane	1.0	U	1.0	0.64	ug/L			11/16/17 03:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.59	ug/L			11/16/17 03:22	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1	ug/L			11/16/17 03:22	1
Toluene	1.0	U	1.0	0.46	ug/L			11/16/17 03:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.58	ug/L			11/16/17 03:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.45	ug/L			11/16/17 03:22	1
Tetrachloroethene	1.0	U	1.0	0.47	ug/L			11/16/17 03:22	1
2-Hexanone	5.0	U	5.0	3.3	ug/L			11/16/17 03:22	1
Dibromochloromethane	1.0	U	1.0	0.84	ug/L			11/16/17 03:22	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50	ug/L			11/16/17 03:22	1
Chlorobenzene	1.0	U	1.0	0.50	ug/L			11/16/17 03:22	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57	ug/L			11/16/17 03:22	1
Ethylbenzene	1.0	U	1.0	0.51	ug/L			11/16/17 03:22	1
Xylenes, Total	2.0	U	2.0	0.89	ug/L			11/16/17 03:22	1
Styrene	1.0	U	1.0	0.47	ug/L			11/16/17 03:22	1
Bromoform	1.0	U	1.0	0.98	ug/L			11/16/17 03:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60	ug/L			11/16/17 03:22	1
Acrylonitrile	20	U	20	7.8	ug/L			11/16/17 03:22	1
1,4-Dioxane	200	U	200	14	ug/L			11/16/17 03:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		65 - 121		11/16/17 03:22	1
Toluene-d8 (Surr)	103		73 - 120		11/16/17 03:22	1
4-Bromofluorobenzene (Surr)	103		80 - 120		11/16/17 03:22	1
Dibromofluoromethane (Surr)	96		73 - 120		11/16/17 03:22	1

QC Sample Results

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

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

Lab Sample ID: LCS 180-229098/5

Matrix: Water

Analysis Batch: 229098

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	10.5		ug/L		105	49 - 135
Vinyl chloride	10.0	9.73		ug/L		97	52 - 136
Bromomethane	10.0	6.37		ug/L		64	37 - 150
Chloroethane	10.0	12.0		ug/L		120	44 - 139
1,1-Dichloroethene	10.0	9.10		ug/L		91	64 - 131
Acetone	20.0	20.5		ug/L		102	24 - 150
Carbon disulfide	10.0	9.96		ug/L		100	20 - 150
Methylene Chloride	10.0	8.08		ug/L		81	66 - 123
trans-1,2-Dichloroethene	10.0	8.50		ug/L		85	70 - 123
Methyl tert-butyl ether	10.0	8.63		ug/L		86	66 - 130
1,1-Dichloroethane	10.0	8.59		ug/L		86	66 - 122
cis-1,2-Dichloroethene	10.0	7.74		ug/L		77	73 - 120
Bromochloromethane	10.0	7.68		ug/L		77	73 - 122
2-Butanone (MEK)	20.0	17.7		ug/L		89	37 - 150
Chloroform	10.0	7.99		ug/L		80	72 - 123
1,1,1-Trichloroethane	10.0	8.68		ug/L		87	66 - 129
Carbon tetrachloride	10.0	8.75		ug/L		87	58 - 145
Benzene	10.0	7.97		ug/L		80	75 - 123
1,2-Dichloroethane	10.0	8.87		ug/L		89	63 - 130
Trichloroethene	10.0	7.17	*	ug/L		72	74 - 121
1,2-Dichloropropane	10.0	8.76		ug/L		88	67 - 119
Bromodichloromethane	10.0	8.26		ug/L		83	62 - 127
cis-1,3-Dichloropropene	10.0	8.90		ug/L		89	61 - 127
4-Methyl-2-pentanone (MIBK)	20.0	16.5		ug/L		83	41 - 135
Toluene	10.0	9.31		ug/L		93	76 - 129
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	61 - 136
1,1,2-Trichloroethane	10.0	9.38		ug/L		94	74 - 126
Tetrachloroethene	10.0	7.50	*	ug/L		75	76 - 128
2-Hexanone	20.0	16.8		ug/L		84	37 - 150
Dibromochloromethane	10.0	9.52		ug/L		95	63 - 131
1,2-Dibromoethane (EDB)	10.0	8.30		ug/L		83	76 - 128
Chlorobenzene	10.0	8.93		ug/L		89	79 - 124
1,1,1,2-Tetrachloroethane	10.0	8.87		ug/L		89	70 - 130
Ethylbenzene	10.0	8.32		ug/L		83	77 - 124
Xylenes, Total	20.0	16.8		ug/L		84	76 - 124
Styrene	10.0	8.31		ug/L		83	80 - 125
Bromoform	10.0	8.25		ug/L		83	54 - 136
1,1,2,2-Tetrachloroethane	10.0	9.06		ug/L		91	72 - 128
Acrylonitrile	100	93.3		ug/L		93	60 - 130
1,4-Dioxane	200	178	J	ug/L		89	26 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		65 - 121
Toluene-d8 (Surr)	111		73 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	93		73 - 120

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

GC/MS VOA

Analysis Batch: 228704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-72047-2	HD-MW-184S-0/1-0	Total/NA	Water	8260C	
180-72047-4	HD-MW-136A-459.5/460.0	Total/NA	Water	8260C	
180-72047-5	HD-QC8-0/1-2	Total/NA	Water	8260C	
MB 180-228704/6	Method Blank	Total/NA	Water	8260C	
LCS 180-228704/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 228816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-72047-1	HD-MW-182-0/1-0	Total/NA	Water	8260C	
180-72047-2 - DL	HD-MW-184S-0/1-0	Total/NA	Water	8260C	
180-72047-3	HD-MW-181D-0/1-0	Total/NA	Water	8260C	
MB 180-228816/6	Method Blank	Total/NA	Water	8260C	
LCS 180-228816/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 229098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-72047-2 - RADL	HD-MW-184S-0/1-0	Total/NA	Water	8260C	
180-72047-3 - DL	HD-MW-181D-0/1-0	Total/NA	Water	8260C	
180-72047-4 - DL	HD-MW-136A-459.5/460.0	Total/NA	Water	8260C	
MB 180-229098/7	Method Blank	Total/NA	Water	8260C	
LCS 180-229098/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: Groundwater Sciences Corporation
 Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

Client Sample ID: HD-MW-182-0/1-0

Lab Sample ID: 180-72047-1

Date Collected: 11/01/17 09:20

Matrix: Water

Date Received: 11/03/17 08:45

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	228816	11/14/17 04:14	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-184S-0/1-0

Lab Sample ID: 180-72047-2

Date Collected: 11/01/17 09:15

Matrix: Water

Date Received: 11/03/17 08:45

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	228704	11/12/17 23:19	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	5	5 mL	5 mL	228816	11/14/17 08:37	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	RADL	5	5 mL	5 mL	229098	11/16/17 09:33	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-181D-0/1-0

Lab Sample ID: 180-72047-3

Date Collected: 11/01/17 09:00

Matrix: Water

Date Received: 11/03/17 08:45

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	228816	11/14/17 09:01	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	1	5 mL	5 mL	229098	11/16/17 11:58	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-MW-136A-459.5/460.0

Lab Sample ID: 180-72047-4

Date Collected: 11/01/17 09:10

Matrix: Water

Date Received: 11/03/17 08:45

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	228704	11/13/17 00:07	FBB	TAL PIT
Instrument ID: CHHP5										
Total/NA	Analysis	8260C	DL	100	5 mL	5 mL	229098	11/16/17 10:21	FBB	TAL PIT
Instrument ID: CHHP5										

Client Sample ID: HD-QC8-0/1-2

Lab Sample ID: 180-72047-5

Date Collected: 11/01/17 12:00

Matrix: Water

Date Received: 11/03/17 08:45

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	228704	11/12/17 21:42	FBB	TAL PIT
Instrument ID: CHHP5										

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Analysis

FBB = Frank Bungard

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

Laboratory: TestAmerica Pittsburgh

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

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

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-72047-1

Method	Method Description	Protocol	Laboratory
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: 180-72047-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-72047-1	HD-MW-182-0/1-0	Water	11/01/17 09:20	11/03/17 08:45
180-72047-2	HD-MW-184S-0/1-0	Water	11/01/17 09:15	11/03/17 08:45
180-72047-3	HD-MW-181D-0/1-0	Water	11/01/17 09:00	11/03/17 08:45
180-72047-4	HD-MW-136A-459.5/460.0	Water	11/01/17 09:10	11/03/17 08:45
180-72047-5	HD-QC8-0/1-2	Water	11/01/17 12:00	11/03/17 08:45

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

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

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

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

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

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 228704

Lab Sample ID: CCVIS 180-228704/2 Client Sample ID: _____

Date Analyzed: 11/12/17 17:04 Lab File ID: 51112D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.79	Poor chromatography	bungardf	11/12/17 17:33
1,4-Dioxane	8.08	Poor chromatography	bungardf	11/12/17 17:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 228816Lab Sample ID: CCVIS 180-228816/2 Client Sample ID: _____Date Analyzed: 11/13/17 23:53 Lab File ID: 51113D02.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.79	Poor chromatography	bungardf	11/14/17 00:39

Lab Sample ID: 180-72047-1 Client Sample ID: HD-MW-182-0/1-0Date Analyzed: 11/14/17 04:14 Lab File ID: 51113D11.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.43	Poor chromatography	bungardf	11/14/17 21:06

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5 Analysis Batch Number: 229098Lab Sample ID: CCVIS 180-229098/4 Client Sample ID: _____Date Analyzed: 11/16/17 01:49 Lab File ID: 51115D04.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.76	Poor chromatography	bungardf	11/16/17 02:14

Lab Sample ID: MB 180-229098/7 Client Sample ID: _____Date Analyzed: 11/16/17 03:22 Lab File ID: 51115D07.D GC Column: DB-624 ID: 0.18 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.46	Poor chromatography	bungardf	11/16/17 03:43

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260INT_00070	06/22/17	05/22/17	Methanol, Lot 127999	10 mL	VOA8260INTRES_00121	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00121	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00072	08/21/17	07/21/17	Methanol, Lot 2019055	10 mL	VOA8260INTRES_00123	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00123	08/31/20		Restek, Lot A0113246		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00075	11/20/17	10/20/17	Methanol, Lot 2469125	10 mL	VOA8260INTRES_00136	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_00136	01/31/22		Restek, Lot A0124343		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00069	06/22/17	05/22/17	Methanol, Lot 127999	100 mL	VOA8260SURRES_00126	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00126	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00071	08/21/17	07/21/17	Methanol, Lot 2019055	100 mL	VOA8260SURRES_00118	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00118	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00074	11/20/17	10/20/17	Methanol, Lot 2469125	100 mL	VOA8260SURRES_00120	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_00120	10/31/20		Restek, Lot A0114901		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260VOA2ND_00246	06/09/17	06/04/17	Methanol, Lot 2019054	10 mL	VOA8260GAS2ND_00194	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00242	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS2ND_00194	01/31/20		Restek, Lot A0124116			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00242	06/09/17	05/09/17	Methanol, Lot 136118	10 mL	VOA8260MEGA2_00060	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00060	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration				
					Reagent ID	Volume Added						
							Dibromochloromethane	2500 ug/mL				
							Ethylbenzene	2500 ug/mL				
							Methyl tert-butyl ether	2500 ug/mL				
							Methylene Chloride	2500 ug/mL				
							Styrene	2500 ug/mL				
							Tetrachloroethene	2500 ug/mL				
							Toluene	2500 ug/mL				
							trans-1,2-Dichloroethene	2500 ug/mL				
							trans-1,3-Dichloropropene	2500 ug/mL				
							Trichloroethene	2500 ug/mL				
							Xylenes, Total	5000 ug/mL				
VOA8260VOA2ND_00255	08/03/17	07/27/17	Methanol, Lot 2019056	10 mL	VOA8260GAS2ND_00201	100 uL	Bromomethane	25 ug/mL				
							Chloroethane	25 ug/mL				
							Chloromethane	25 ug/mL				
											Vinyl chloride	25 ug/mL
									VOA8260VOA2ND_00252	1 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
											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							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260GAS2ND_00201	01/31/20		Restek, Lot A0124116			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00252	08/10/17	07/10/17	Methanol, Lot 2019055	10 mL	VOA8260MEGA2_00061	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
Toluene	250 ug/mL							
trans-1,2-Dichloroethene	250 ug/mL							
trans-1,3-Dichloropropene	250 ug/mL							
Trichloroethene	250 ug/mL							
Xylenes, Total	500 ug/mL							
..VOA8260MEGA2_00061	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
							Bromochloromethane	2500 ug/mL					
							Bromodichloromethane	2500 ug/mL					
							Bromoform	2500 ug/mL					
							Carbon disulfide	2500 ug/mL					
							Carbon tetrachloride	2500 ug/mL					
							Chlorobenzene	2500 ug/mL					
							Chloroform	2500 ug/mL					
							cis-1,2-Dichloroethene	2500 ug/mL					
							cis-1,3-Dichloropropene	2500 ug/mL					
							Dibromochloromethane	2500 ug/mL					
							Ethylbenzene	2500 ug/mL					
							Methyl tert-butyl ether	2500 ug/mL					
							Methylene Chloride	2500 ug/mL					
							Styrene	2500 ug/mL					
							Tetrachloroethene	2500 ug/mL					
							Toluene	2500 ug/mL					
							trans-1,2-Dichloroethene	2500 ug/mL					
							trans-1,3-Dichloropropene	2500 ug/mL					
							Trichloroethene	2500 ug/mL					
							Xylenes, Total	5000 ug/mL					
VOA8260VOA2ND_00271	11/13/17	11/06/17	Methanol, Lot 2469119	10 mL	VOA8260GAS2ND_00217	100 uL	Bromomethane	25 ug/mL					
							Chloroethane	25 ug/mL					
							Chloromethane	25 ug/mL					
							Vinyl chloride	25 ug/mL					
					VOA8260VOA2ND_00268						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												

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00217	06/30/20		Restek, Lot A0128832			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00268	11/16/17	10/16/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA2_00065	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							Trichloroethene	250 ug/mL
							Xylenes, Total	500 ug/mL
..VOA8260MEGA2_00065	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

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	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOA2ND_00272	11/16/17	11/13/17	Methanol, Lot 2469119	10 mL	VOA8260GAS2ND_00218	100 uL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00268	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00218	06/30/20		Restek, Lot A0128832			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00268	11/16/17	10/16/17	Methanol, Lot 2469120	10 mL	VOA8260MEGA2_00065	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropane	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzene	250 ug/mL
							Bromochloromethane	250 ug/mL
							Bromodichloromethane	250 ug/mL
							Bromoform	250 ug/mL
							Carbon disulfide	250 ug/mL
							Carbon tetrachloride	250 ug/mL
							Chlorobenzene	250 ug/mL
							Chloroform	250 ug/mL
							cis-1,2-Dichloroethene	250 ug/mL
							cis-1,3-Dichloropropene	250 ug/mL
							Dibromochloromethane	250 ug/mL
							Ethylbenzene	250 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylene Chloride	250 ug/mL
							Styrene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00065	12/31/18		Restek, Lot A0123775			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL
							Bromochloromethane	2500 ug/mL
							Bromodichloromethane	2500 ug/mL
							Bromoform	2500 ug/mL
							Carbon disulfide	2500 ug/mL
							Carbon tetrachloride	2500 ug/mL
							Chlorobenzene	2500 ug/mL
							Chloroform	2500 ug/mL
							cis-1,2-Dichloroethene	2500 ug/mL
							cis-1,3-Dichloropropene	2500 ug/mL
							Dibromochloromethane	2500 ug/mL
							Ethylbenzene	2500 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							Styrene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00255	06/09/17	06/04/17	Methanol, Lot 2019054	10 mL	VOA8260GAS1ST_00197	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00251	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00197	01/31/20		Restek, Lot A0124278		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00251	06/09/17	05/09/17	Methanol, Lot 136118	10 mL	VOA8260KET1ST_00090	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00063	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00090	01/31/20		Restek, Lot A0123890			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00063	12/31/18		Restek, Lot A0123711			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	2500 ug/mL
							1,1,1-Trichloroethane	2500 ug/mL
							1,1,2,2-Tetrachloroethane	2500 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL
							4-Isopropyltoluene	2500 ug/mL
							Acrylonitrile	25000 ug/mL
							Benzene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VOA8260VOAPRI_00263	07/29/17	07/22/17	Methanol, Lot 2019055	10 mL	VOA8260GAS1ST_00203	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					VOA8260VOAPRI_00260	1 mL	Vinyl chloride	25 ug/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
							Cyclohexane	25 ug/mL
							Dibromochloromethane	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	50 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00203	01/31/20		Restek, Lot A0124278			(Purchased Reagent)	Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00260	08/06/17	07/06/17	Methanol, Lot 2019056	10 mL	VOA8260KET1ST_00100	0.2 mL	2-Butanone (MEK)	250 ug/mL
							2-Hexanone	250 ug/mL
							4-Methyl-2-pentanone (MIBK)	250 ug/mL
							Acetone	250 ug/mL
					VOA8260MEGA1_00065	1 mL	1,1,1,2-Tetrachloroethane	250 ug/mL
							1,1,1-Trichloroethane	250 ug/mL
							1,1,2,2-Tetrachloroethane	250 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	250 ug/mL
							1,1,2-Trichloroethane	250 ug/mL
							1,1-Dichloroethane	250 ug/mL
							1,1-Dichloroethene	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloropropene	250 ug/mL
							1,2,3-Trichlorobenzene	250 ug/mL
							1,2,3-Trichloropropene	250 ug/mL
							1,2,4-Trichlorobenzene	250 ug/mL
							1,2,4-Trimethylbenzene	250 ug/mL
							1,2-Dibromo-3-Chloropropene	250 ug/mL
							1,2-Dibromoethane (EDB)	250 ug/mL
							1,2-Dichlorobenzene	250 ug/mL
							1,2-Dichloroethane	250 ug/mL
							1,2-Dichloropropene	250 ug/mL
							1,3,5-Trimethylbenzene	250 ug/mL
							1,3-Dichlorobenzene	250 ug/mL
							1,3-Dichloropropene	250 ug/mL
							1,4-Dichlorobenzene	250 ug/mL
							1,4-Dioxane	5000 ug/mL
							2,2-Dichloropropene	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
							Methyl acetate	500 ug/mL
							Methyl tert-butyl ether	250 ug/mL
							Methylcyclohexane	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	250 ug/mL
							n-Butylbenzene	250 ug/mL
							n-Heptane	250 ug/mL
							N-Propylbenzene	250 ug/mL
							Naphthalene	250 ug/mL
							o-Xylene	250 ug/mL
							sec-Butylbenzene	250 ug/mL
							Styrene	250 ug/mL
							tert-Butylbenzene	250 ug/mL
							Tetrachloroethene	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Toluene	250 ug/mL
							trans-1,2-Dichloroethene	250 ug/mL
							trans-1,3-Dichloropropene	250 ug/mL
							trans-1,4-Dichloro-2-butene	250 ug/mL
							Trichloroethene	250 ug/mL
..VOA8260KET1ST_00100	01/31/20		Restek, Lot A0123890			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00065	12/31/18		Restek, Lot A0123711			(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-trifluor oethane	2500 ug/mL
							1,1,2-Trichloroethane	2500 ug/mL
							1,1-Dichloroethane	2500 ug/mL
							1,1-Dichloroethene	2500 ug/mL
							1,1-Dichloropropene	2500 ug/mL
							1,2,3-Trichlorobenzene	2500 ug/mL
							1,2,3-Trichloropropane	2500 ug/mL
							1,2,4-Trichlorobenzene	2500 ug/mL
							1,2,4-Trimethylbenzene	2500 ug/mL
							1,2-Dibromo-3-Chloropropane	2500 ug/mL
							1,2-Dibromoethane (EDB)	2500 ug/mL
							1,2-Dichlorobenzene	2500 ug/mL
							1,2-Dichloroethane	2500 ug/mL
							1,2-Dichloropropane	2500 ug/mL
							1,3,5-Trimethylbenzene	2500 ug/mL
							1,3-Dichlorobenzene	2500 ug/mL
							1,3-Dichloropropane	2500 ug/mL
							1,4-Dichlorobenzene	2500 ug/mL
							1,4-Dioxane	50000 ug/mL
							2,2-Dichloropropane	2500 ug/mL
							2-Chlorotoluene	2500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							3-Chloro-1-propene	2500 ug/mL
							4-Chlorotoluene	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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	5000 ug/mL
							Methyl tert-butyl ether	2500 ug/mL
							Methylcyclohexane	2500 ug/mL
							Methylene Chloride	2500 ug/mL
							n-Butylbenzene	2500 ug/mL
							n-Heptane	2500 ug/mL
							N-Propylbenzene	2500 ug/mL
							Naphthalene	2500 ug/mL
							o-Xylene	2500 ug/mL
							sec-Butylbenzene	2500 ug/mL
							Styrene	2500 ug/mL
							tert-Butylbenzene	2500 ug/mL
							Tetrachloroethene	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
							Toluene	2500 ug/mL
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
							Trichloroethene	2500 ug/mL
VOABFB25_00088							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00091	5 mL	BFB	25 ug/mL
.VOABFB50_00091	06/09/17	05/09/17	Methanol, Lot 136118	50 mL	VOABFBRES_00052	1 mL	BFB	50 ug/mL
..VOABFBRES_00052	05/31/21		Restek, Lot A0119122		(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00090							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00093	5 mL	BFB	25 ug/mL
.VOABFB50_00093	08/10/17	07/10/17	Methanol, Lot 2019056	50 mL	VOABFBRES_00058	1 mL	BFB	50 ug/mL
..VOABFBRES_00058	11/30/21		Restek, Lot A0122647		(Purchased Reagent)		BFB	2500 ug/mL
VOABFB25_00095							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Total BTEX	
							Xylenes, Total	
					VOABFB50_00097	5 mL	BFB	25 ug/mL
.VOABFB50_00097	12/10/17	11/10/17	Methanol, Lot 2469125	50 mL	VOABFBRES_00059	1 mL	BFB	50 ug/mL
..VOABFBRES_00059	04/30/22		Restek, Lot A0127174		(Purchased Reagent)		BFB	2500 ug/mL
voaW2clev1stR_00008	06/12/17	06/05/17	Methanol, Lot 136118	10 mL	VOACEVERES_00124	0.2 mL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00124	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaW2clev1stR_00013	07/31/17	07/24/17	Methanol, Lot 2019056	10 mL	VOACEVERES_00127	200 uL	2-Chloroethyl vinyl ether	50 ug/mL
.VOACEVERES_00127	01/31/20		Restek, Lot A0123891		(Purchased Reagent)		2-Chloroethyl vinyl ether	2500 ug/mL
voaWAcro1stRe_00014	06/12/17	05/12/17	Methanol, Lot 127999	100 mL	VOAACRORES_00113	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00113	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWAcro1stRe_00016	08/17/17	07/17/17	Methanol, Lot 2019056	100 mL	VOAACRORES_00115	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00115	09/30/17		Restek, Lot A0125560		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1stR_00007	07/02/17	06/02/17	Methanol, Lot 127999	25 mL	VOARESEE1ST_00038	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(trifluoromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKet2ndRes_00021	08/24/17	07/24/17	Methanol, Lot 2019056	50 mL	VOA8260KET2ND_00098	100 uL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00098	03/31/19		Restek, Lot A0123880			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWKet2ndRes_00022	11/16/17	10/16/17	Methanol, Lot 2469120	50 mL	VOA8260KET2ND_00103	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_00103	03/31/19		Restek, Lot A0123880			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA1stRest_00015	07/05/17	06/05/17	Methanol, Lot 136118	25 mL	VOA8260VARES_00081	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00081	07/31/17		Restek, Lot A0124520			(Purchased Reagent)	Vinyl acetate	5000 ug/mL
voaWVA1stRest_00017	07/31/17	07/24/16	Methanol, Lot 2019067	25 mL	VOA8260VARES_00083	125 uL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00083	07/31/17		Restek, Lot A0124520			(Purchased Reagent)	Vinyl acetate	5000 ug/mL

Reagent

VOA8260GAS1ST_00197



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.: A0124278

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

Container Size : 2 mL Pkg Amt: > 1 mL

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

CERTIFIED VALUES

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

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

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

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

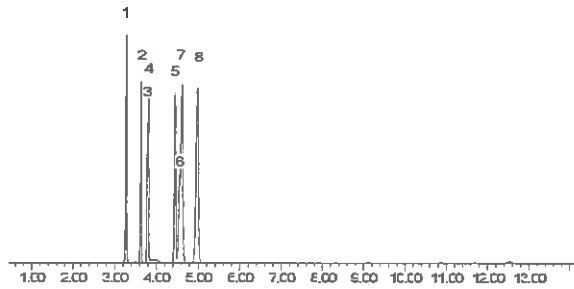
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Joseph Jaglowski
Joseph Jaglowski - Mix Technician

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

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

Date Passed: 24-Jan-2017

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

Reagent

VOA8260GAS1ST_00203



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
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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.: A0124278

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

Container Size : 2 mL Pkg Amt: > 1 mL

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

CERTIFIED VALUES

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

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

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

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

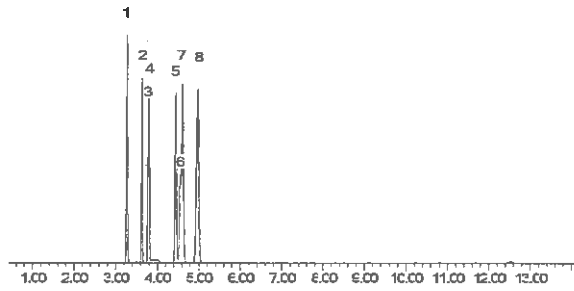
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Joseph Jaglowski
Joseph Jaglowski - Mix Technician

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

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 24-Jan-2017

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

Reagent

VOA8260GAS2ND_00194

RESTEK CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

CERTIFIED VALUES

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

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

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

Column:

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

Carrier Gas:

helium-constant flow 2.0 mL/min.

Temp. Program:

40°C (hold 6 min.) to 100°C
 @ 6°C/min.

Inj. Temp:

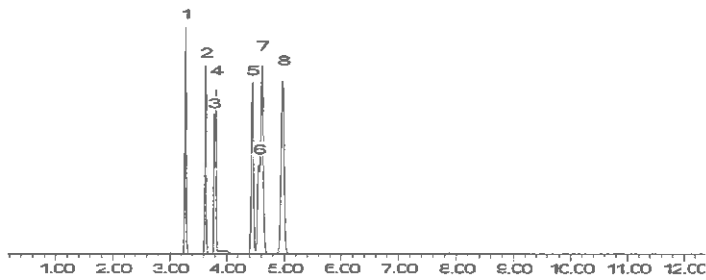
200°C

Det. Temp:

250°C

Det. Type:

MSD



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

Brandon Reish

Brandon Reish - Mix Technician

Date Mixed: 12-Jan-2017

Balance: 1127510105

Jennifer J. Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2017

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

Reagent

VOA8260GAS2ND_00201



CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
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Fax: (814)353-1309

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

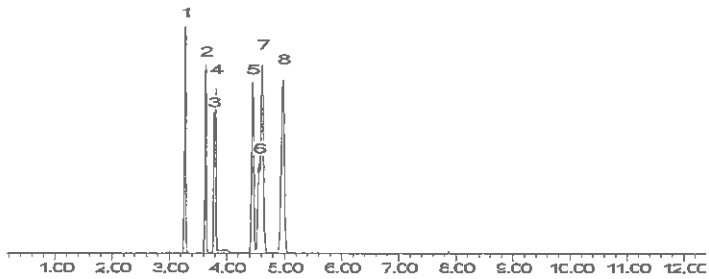
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Brandon Reish

Brandon Reish - Mix Technician

Date Mixed: 12-Jan-2017

Balance: 1127510105

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 17-Jan-2017

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

Reagent

VOA8260GAS2ND_00217

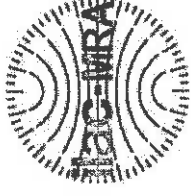


CERTIFIED REFERENCE MATERIAL

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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.:** A0128832

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: June 30, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)	Gravimetric Unstressed	Gravimetric Stressed
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC Purity 99% (Lot 23586)	2,505.9 µg/mL	+/- 22.3986 +/- 141.5312 +/- 144.7955	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC Purity 99% (Lot 18343)	2,503.7 µg/mL	+/- 24.8413 +/- 141.8153 +/- 145.0675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed
3	Vinyl chloride CAS # 75-01-4.SEC Purity 99% (Lot MKBK6872V)	2,503.2 µg/mL	+/- 25.9197 +/- 141.9813 +/- 145.2285	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed
4	1,3-Butadiene CAS # 106-99-0.SEC Purity 99% (Lot 24033)	2,508.9 µg/mL	+/- 20.6969 +/- 141.4379 +/- 144.7121	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC Purity 99% (Lot Q119-46)	2,502.6 µg/mL	+/- 26.2540 +/- 142.0076 +/- 145.2526	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC Purity 99% (Lot 00004202)	2,510.6 µg/mL	+/- 24.9094 +/- 142.2038 +/- 145.4650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC Purity 99% (Lot SHBC0858V)	2,510.9 µg/mL	+/- 25.6719 +/- 142.3575 +/- 145.6160	µg/mL µg/mL µg/mL	Gravimetric Unstressed Gravimetric Stressed

Reagent

VOA8260GAS2ND_00218

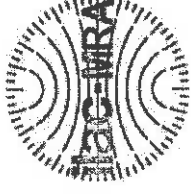


CERTIFIED REFERENCE MATERIAL

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.: A0128832

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 : June 30, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8.SEC (Lot 23586) Purity 99%	2,505.9 µg/mL	+/- 22.3986 µg/mL +/- 141.5312 µg/mL +/- 144.7955 µg/mL Gravimetric Unstressed Gravimetric Stressed
2	Chloromethane (methyl chloride) CAS # 74-87-3.SEC (Lot 18343) Purity 99%	2,503.7 µg/mL	+/- 24.8413 µg/mL +/- 141.8153 µg/mL +/- 145.0675 µg/mL Gravimetric Unstressed Gravimetric Stressed
3	Vinyl chloride CAS # 75-01-4.SEC (Lot MKBK6872V) Purity 99%	2,503.2 µg/mL	+/- 25.9197 µg/mL +/- 141.9813 µg/mL +/- 145.2285 µg/mL Gravimetric Unstressed Gravimetric Stressed
4	1,3-Butadiene CAS # 106-99-0.SEC (Lot 24033) Purity 99%	2,508.9 µg/mL	+/- 20.6969 µg/mL +/- 141.4379 µg/mL +/- 144.7121 µg/mL Gravimetric Unstressed Gravimetric Stressed
5	Bromomethane (methyl bromide) CAS # 74-83-9.SEC (Lot Q119-46) Purity 99%	2,502.6 µg/mL	+/- 26.2540 µg/mL +/- 142.0076 µg/mL +/- 145.2526 µg/mL Gravimetric Unstressed Gravimetric Stressed
6	Chloroethane (ethyl chloride) CAS # 75-00-3.SEC (Lot 00004202) Purity 99%	2,510.6 µg/mL	+/- 24.9094 µg/mL +/- 142.2038 µg/mL +/- 145.4650 µg/mL Gravimetric Unstressed Gravimetric Stressed
7	Dichlorofluoromethane (CFC-21) CAS # 75-43-4.SEC (Lot SHBC0858V) Purity 99%	2,510.9 µg/mL	+/- 25.6719 µg/mL +/- 142.3575 µg/mL +/- 145.6160 µg/mL Gravimetric Unstressed Gravimetric Stressed

Reagent

VOA8260INTRES_00121



CERTIFIED REFERENCE MATERIAL

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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. : 568718 Lot No.: A0113246
 Description : 8260 Internal Standard 2014
8260 Internal Standard 2014 250-5,000 ug/ml, P&T Methanol, 5 ml/ampul
 Container Size : 5 mL Pkg Amt: > 5 mL
 Expiration Date : August 31, 2020 Storage: 0°C or colder

CERTIFIED VALUES

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

Reagent

VOA8260INTRES_00123



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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. : 568718 Lot No.: A0113246

Description : 8260 Internal Standard 2014

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

Container Size : 5 mL Pkg Amt: > 5 mL

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

CERTIFIED VALUES

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

Reagent

VOA8260INTRES_00136



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Catalog No. : 568718 **Lot No.:** A0124343

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

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : January 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	tert-Butyl-d9-alcohol CAS # 25725-11-5 Purity 99% (Lot I-201)	5,050.0 µg/mL	+/-	29.3596	µg/mL	Gravimetric
			+/-	108.1207	µg/mL	Unstressed
			+/-	111.2640	µg/mL	Stressed
2	2-Butanone-d5 CAS # 24313-50-6 Purity 99% (Lot M-276)	1,262.5 µg/mL	+/-	7.3403	µg/mL	Gravimetric
			+/-	27.0303	µg/mL	Unstressed
			+/-	27.8161	µg/mL	Stressed
3	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot BCBK8171V)	251.6 µg/mL	+/-	1.4664	µg/mL	Gravimetric
			+/-	5.3884	µg/mL	Unstressed
			+/-	5.5450	µg/mL	Stressed
4	1,4-Dioxane-d8 CAS # 17647-74-4 Purity 99% (Lot I-19942)	5,048.8 µg/mL	+/-	29.3526	µg/mL	Gravimetric
			+/-	108.0950	µg/mL	Unstressed
			+/-	111.2375	µg/mL	Stressed
5	Chlorobenzene-d5 CAS # 3114-55-4 Purity 99% (Lot PR-23926)	251.5 µg/mL	+/-	1.4654	µg/mL	Gravimetric
			+/-	5.3849	µg/mL	Unstressed
			+/-	5.5413	µg/mL	Stressed
6	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 Purity 99% (Lot PR-18488)	252.5 µg/mL	+/-	1.4714	µg/mL	Gravimetric
			+/-	5.4070	µg/mL	Unstressed
			+/-	5.5641	µg/mL	Stressed

Reagent

VOA8260KET1ST_00090



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Catalog No. : 569721 Lot No.: A0123890

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

Container Size : 2 mL Pkg Amt: > 1 mL

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00100



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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00094



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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00098



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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00103



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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260MEGA1_00063



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

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

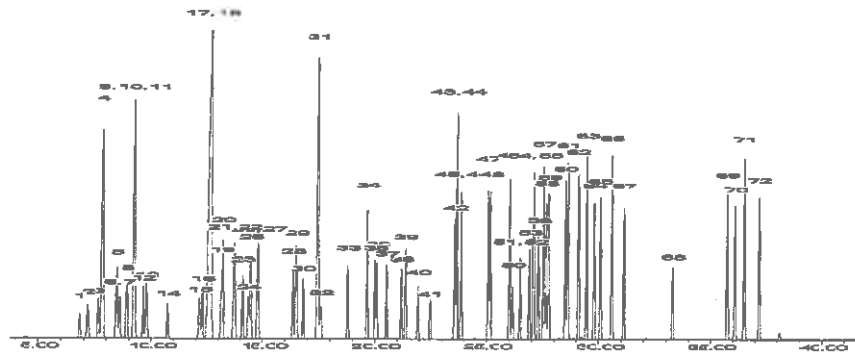
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon
F. Joseph Tallon - Mix Technician

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

Jennifer Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

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

Reagent

VOA8260MEGA1_00065

RESTEK CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

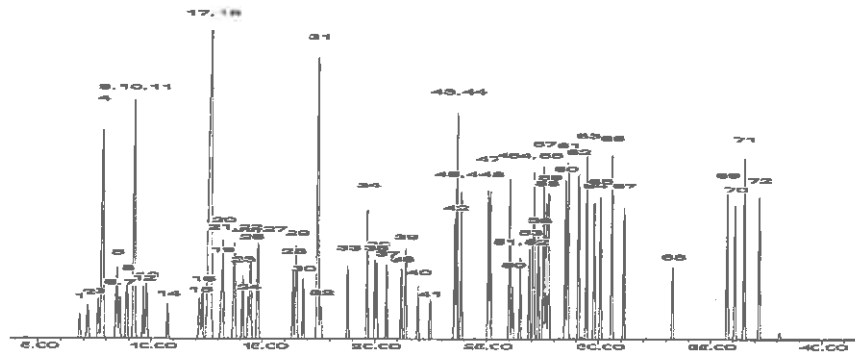
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon
F. Joseph Tallon - Mix Technician

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

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

Date Passed: 04-Jan-2017

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

Reagent

VOA8260MEGA2_00060



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

Column:

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

Carrier Gas:

helium-constant pressure 30 psi

Temp. Program:

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

Inj. Temp:

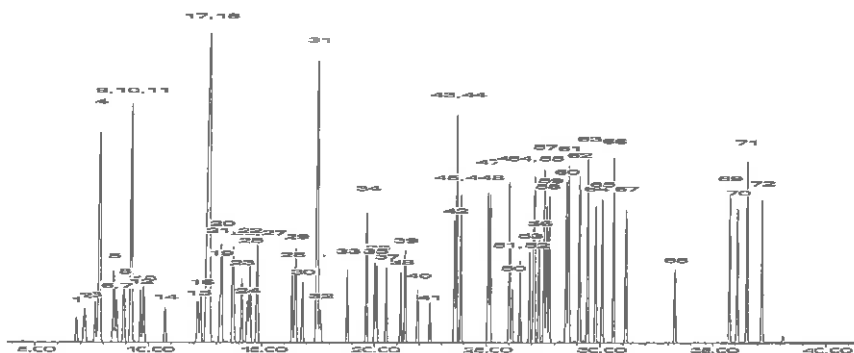
200°C

Det. Temp:

250°C

Det. Type:

MSD



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

Michael Mays

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

Jennifer J Pollino
 Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

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

Reagent

VOA8260MEGA2_00061



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

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

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

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

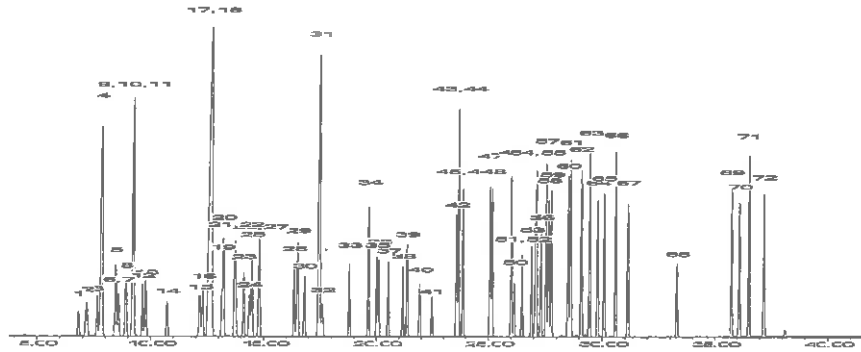
Carrier Gas:
helium-constant pressure 30 psi

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael Mays

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

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

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

Reagent

VOA8260MEGA2_00065



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

CERTIFIED VALUES

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

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

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

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

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

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

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

Column:

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

Carrier Gas:

helium-constant pressure 30 psi

Temp. Program:

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

Inj. Temp:

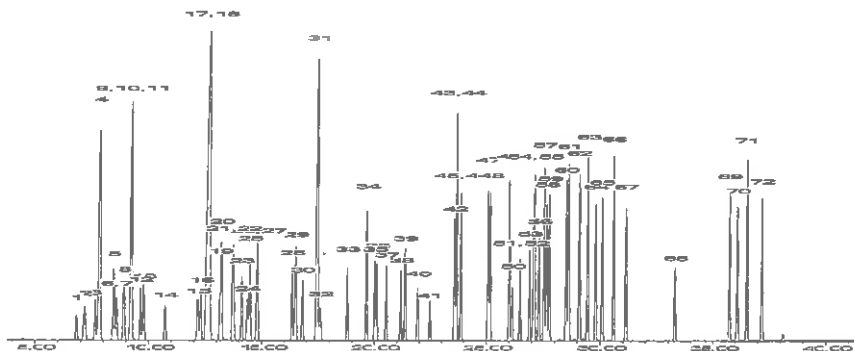
200°C

Det. Temp:

250°C

Det. Type:

MSD



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

Michael Mays

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

Jennifer J Pollino
 Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 04-Jan-2017

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

Reagent

VOA8260SURRES_00118



CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260SURRES_00120



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260SURRES_00126



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

CERTIFIED VALUES

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

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

Reagent

VOA8260VARES_00081



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOA8260VARES_00083



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00113



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0125560

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

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

Expiration Date : September 30, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 170123JLM)	19,779.0 µg/mL	+/- 115.8104 µg/mL Gravimetric +/- 634.1769 µg/mL Unstressed +/- 737.1613 µg/mL Stressed

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

Reagent

VOAACRORES_00115



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Belleville, 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. : 568720 **Lot No.:** A0125560

Description : 8260 List 1/Std #5 Acrolein High
8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

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

Expiration Date : September 30, 2017 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Acrolein CAS # 107-02-8 Purity 99% (Lot 170123JLM)	19,779.0 µg/mL	+/- 115.8104 µg/mL Gravimetric +/- 634.1769 µg/mL Unstressed +/- 737.1613 µg/mL Stressed

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

Reagent

VOABFBRES_00052



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. : 30067 **Lot No.:** A0119122

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : May 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99% (Lot 20401KOV)	2,501.0 µg/mL	+/- 14.6773	µg/mL	Gravimetric
			+/- 140.2428	µg/mL	Unstressed
			+/- 143.5236	µg/mL	Stressed

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

Reagent

VOABFBRES_00058



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. : 30067 **Lot No.:** A0122647

Description : 4-Bromofluorobenzene Standard
4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol,
1mL/ampul

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

Expiration Date : November 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 (Lot 20401KOV) Purity 99%	2,524.0 µg/mL	+/-	14.8122	µg/mL	Gravimetric
			+/-	141.5325	µg/mL	Unstressed
			+/-	144.8435	µg/mL	Stressed

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

Reagent

VOABFBRES_00059



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. : 30067 **Lot No.:** A0127174

Description : 4-Bromofluorobenzene Standard
4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol,
1mL/ampul

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

Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 (Lot 01127COV) Purity 99%	2,506.0 µg/mL	+/- 14.7066	µg/mL	Gravimetric
			+/- 140.5232	µg/mL	Unstressed
			+/- 143.8106	µg/mL	Stressed

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

Reagent

VOACEVERES_00124



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569723 **Lot No.:** A0123891

Description : 8260 List 1 / Std #4 2-CEVE (2015)
8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Chloroethyl vinyl ether CAS # 110-75-8 Purity 98% (Lot MKBS6526V)	2,503.5 µg/mL	+/- 14.5556	µg/mL	Gravimetric
			+/- 53.6004	µg/mL	Unstressed
			+/- 55.1587	µg/mL	Stressed

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

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VOACEVERES_00127



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. : 569723 **Lot No.:** A0123891

Description : 8260 List 1 / Std #4 2-CEVE (2015)
8260 List 1 / Std #4 2-CEVE (2015) 2,500 ug/ml, P&T Methanol, 1 ml/ampul

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

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

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CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	2-Chloroethyl vinyl ether CAS # 110-75-8 Purity 98% (Lot MKBS6526V)	2,503.5 µg/mL	+/-	14.5556	µg/mL	Gravimetric
			+/-	53.6004	µg/mL	Unstressed
			+/-	55.1587	µg/mL	Stressed

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

Tech Tips:

Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

Reagent

VOARESEE1ST_00038



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. : 568363-FL **Lot No.:** A0120234
Description : Custom EE Standard
Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2018 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	3-Chlorobenzotrifluoride	5,025.0 µg/mL	+/-	29.4895	µg/mL	Gravimetric
	CAS # 98-15-7 (Lot 21324DO)		+/-	281.7753	µg/mL	Unstressed
	Purity 99%		+/-	288.3671	µg/mL	Stressed
2	4-Chlorobenzotrifluoride	5,031.0 µg/mL	+/-	29.5247	µg/mL	Gravimetric
	CAS # 98-56-6 (Lot 08507BO)		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
3	2-Chlorobenzotrifluoride	5,011.0 µg/mL	+/-	29.4074	µg/mL	Gravimetric
	CAS # 88-16-4 (Lot I0316DQ)		+/-	280.9902	µg/mL	Unstressed
	Purity 99%		+/-	287.5637	µg/mL	Stressed
4	3-Chlorotoluene	5,046.0 µg/mL	+/-	29.6128	µg/mL	Gravimetric
	CAS # 108-41-8 (Lot 13528LX)		+/-	282.9528	µg/mL	Unstressed
	Purity 99%		+/-	289.5723	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride	5,018.0 µg/mL	+/-	29.4484	µg/mL	Gravimetric
	CAS # 320-60-5 (Lot MKBL3552V)		+/-	281.3828	µg/mL	Unstressed
	Purity 99%		+/-	287.9654	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride	5,031.0 µg/mL	+/-	29.5247	µg/mL	Gravimetric
	CAS # 328-84-7 (Lot 11105EJV)		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride	5,047.0 µg/mL	+/-	29.6186	µg/mL	Gravimetric
	CAS # 320-50-3 (Lot 04415DSV)		+/-	283.0089	µg/mL	Unstressed
	Purity 99%		+/-	289.6296	µg/mL	Stressed

8	2,4-Dichlorotoluene		5,036.0	µg/mL	+/-	29.5541	µg/mL	Gravimetric
	CAS #	95-73-8	(Lot 4194700)		+/-	282.3921	µg/mL	Unstressed
	Purity	99%			+/-	288.9984	µg/mL	Stressed
9	2,5-Dichlorotoluene		5,016.0	µg/mL	+/-	29.4367	µg/mL	Gravimetric
	CAS #	19398-61-9	(Lot 1381346V)		+/-	281.2706	µg/mL	Unstressed
	Purity	99%			+/-	287.8507	µg/mL	Stressed
10	2,6-Dichlorotoluene		5,027.0	µg/mL	+/-	29.5013	µg/mL	Gravimetric
	CAS #	118-69-4	(Lot MKBG8583V)		+/-	281.8874	µg/mL	Unstressed
	Purity	99%			+/-	288.4819	µg/mL	Stressed
11	3,4-Dichlorotoluene		5,021.0	µg/mL	+/-	29.4660	µg/mL	Gravimetric
	CAS #	95-75-0	(Lot 09419AS)		+/-	281.5510	µg/mL	Unstressed
	Purity	99%			+/-	288.1376	µg/mL	Stressed
12	2,3-Dichlorotoluene		5,031.0	µg/mL	+/-	29.5247	µg/mL	Gravimetric
	CAS #	32768-54-0	(Lot 41215)		+/-	282.1117	µg/mL	Unstressed
	Purity	99%			+/-	288.7115	µg/mL	Stressed
13	2,4,5-Trichlorotoluene		5,041.0	µg/mL	+/-	29.5834	µg/mL	Gravimetric
	CAS #	6639-30-1	(Lot 5150700)		+/-	282.6725	µg/mL	Unstressed
	Purity	99%			+/-	289.2853	µg/mL	Stressed
14	2,3,6-Trichlorotoluene		5,003.0	µg/mL	+/-	29.3604	µg/mL	Gravimetric
	CAS #	2077-46-5	(Lot NT054179)		+/-	280.5416	µg/mL	Unstressed
	Purity	99%			+/-	287.1046	µg/mL	Stressed
Solvent:	P&T Methanol							
	CAS #	67-56-1						
	Purity	99%						

Reagent

VOARESEE1ST_00045



CERTIFIED REFERENCE MATERIAL

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

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568363-FL Lot No.: A0120234

Description : Custom EE Standard
Custom EE Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

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

2396751

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	3-Chlorobenzotrifluoride	5,025.0 µg/mL (Lot 21324DO)	+/-	29.4895	µg/mL	Gravimetric
	CAS # 98-15-7		+/-	281.7753	µg/mL	Unstressed
	Purity 99%		+/-	288.3671	µg/mL	Stressed
2	4-Chlorobenzotrifluoride	5,031.0 µg/mL (Lot 08507BO)	+/-	29.5247	µg/mL	Gravimetric
	CAS # 98-56-6		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
3	2-Chlorobenzotrifluoride	5,011.0 µg/mL (Lot I0316DQ)	+/-	29.4074	µg/mL	Gravimetric
	CAS # 88-16-4		+/-	280.9902	µg/mL	Unstressed
	Purity 99%		+/-	287.5637	µg/mL	Stressed
4	3-Chlorotoluene	5,046.0 µg/mL (Lot 13528LX)	+/-	29.6128	µg/mL	Gravimetric
	CAS # 108-41-8		+/-	282.9528	µg/mL	Unstressed
	Purity 99%		+/-	289.5723	µg/mL	Stressed
5	2,4-Dichlorobenzotrifluoride	5,018.0 µg/mL (Lot MKBL3552V)	+/-	29.4484	µg/mL	Gravimetric
	CAS # 320-60-5		+/-	281.3828	µg/mL	Unstressed
	Purity 99%		+/-	287.9654	µg/mL	Stressed
6	3,4-Dichlorobenzotrifluoride	5,031.0 µg/mL (Lot 11105EJV)	+/-	29.5247	µg/mL	Gravimetric
	CAS # 328-84-7		+/-	282.1117	µg/mL	Unstressed
	Purity 99%		+/-	288.7115	µg/mL	Stressed
7	2,5-Dichlorobenzotrifluoride	5,047.0 µg/mL (Lot 04415DSV)	+/-	29.6186	µg/mL	Gravimetric
	CAS # 320-50-3		+/-	283.0089	µg/mL	Unstressed
	Purity 99%		+/-	289.6296	µg/mL	Stressed

Method 8260C Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

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-182-0/1-0	180-72047-1	102	109	93	83
HD-MW-184S-0/1-0	180-72047-2	109	116	91	80
HD-MW-184S-0/1-0 DL	180-72047-2 DL	117	122 X	93	78 X
HD-MW-184S-0/1-0 RADL	180-72047-2 RADL	97	113	99	91
HD-MW-181D-0/1-0	180-72047-3	114	119	92	76 X
HD-MW-181D-0/1-0 DL	180-72047-3 DL	100	117	97	86
HD-MW-136A-459.5/4 60.0	180-72047-4	105	107	97	99
HD-MW-136A-459.5/4 60.0 DL	180-72047-4 DL	99	111	95	90
HD-QC8-0/1-2	180-72047-5	109	111	90	83
	MB 180-228704/6	108	110	93	86
	MB 180-228816/6	102	111	97	84
	MB 180-229098/7	96	110	103	103
	LCS 180-228704/4	97	106	107	100
	LCS 180-228816/4	99	103	110	104
	LCS 180-229098/5	93	98	111	101

	<u>QC LIMITS</u>
DBFM = Dibromofluoromethane (Surr)	73-120
DCA = 1,2-Dichloroethane-d4 (Surr)	65-121
TOL = Toluene-d8 (Surr)	73-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51112D04.D

Lab ID: LCS 180-228704/4

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	14.2	142	49-135	*
Vinyl chloride	10.0	11.9	119	52-136	
Bromomethane	10.0	11.3	113	37-150	
Chloroethane	10.0	13.4	134	44-139	
1,1-Dichloroethene	10.0	11.1	111	64-131	
Acetone	20.0	20.6	103	24-150	
Carbon disulfide	10.0	11.7	117	20-150	
Methylene Chloride	10.0	11.4	114	66-123	
trans-1,2-Dichloroethene	10.0	11.0	110	70-123	
Methyl tert-butyl ether	10.0	11.5	115	66-130	
1,1-Dichloroethane	10.0	11.5	115	66-122	
cis-1,2-Dichloroethene	10.0	10.8	108	73-120	
Bromochloromethane	10.0	11.2	112	73-122	
2-Butanone (MEK)	20.0	20.8	104	37-150	
Chloroform	10.0	10.5	105	72-123	
1,1,1-Trichloroethane	10.0	10.8	108	66-129	
Carbon tetrachloride	10.0	11.1	111	58-145	
Benzene	10.0	10.8	108	75-123	
1,2-Dichloroethane	10.0	12.0	120	63-130	
Trichloroethene	10.0	9.59	96	74-121	
1,2-Dichloropropane	10.0	11.3	113	67-119	
Bromodichloromethane	10.0	10.4	104	62-127	
cis-1,3-Dichloropropene	10.0	10.5	105	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	23.1	116	41-135	
Toluene	10.0	11.5	115	76-129	
trans-1,3-Dichloropropene	10.0	11.5	115	61-136	
1,1,2-Trichloroethane	10.0	11.8	118	74-126	
Tetrachloroethene	10.0	10.2	102	76-128	
2-Hexanone	20.0	21.4	107	37-150	
Dibromochloromethane	10.0	11.5	115	63-131	
1,2-Dibromoethane (EDB)	10.0	11.3	113	76-128	
Chlorobenzene	10.0	10.7	107	79-124	
1,1,1,2-Tetrachloroethane	10.0	11.2	112	70-130	
Ethylbenzene	10.0	10.4	104	77-124	
Xylenes, Total	20.0	20.4	102	76-124	
Styrene	10.0	10.5	105	80-125	
Bromoform	10.0	10.4	104	54-136	
1,1,2,2-Tetrachloroethane	10.0	10.9	109	72-128	
Acrylonitrile	100	138	138	60-130	*
1,4-Dioxane	200	184 J	92	26-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51113D04.D

Lab ID: LCS 180-228816/4

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	13.2	132	49-135	
Vinyl chloride	10.0	10.2	102	52-136	
Bromomethane	10.0	6.38	64	37-150	
Chloroethane	10.0	13.1	131	44-139	
1,1-Dichloroethene	10.0	10.5	105	64-131	
Acetone	20.0	25.0	125	24-150	
Carbon disulfide	10.0	10.5	105	20-150	
Methylene Chloride	10.0	9.94	99	66-123	
trans-1,2-Dichloroethene	10.0	10.1	101	70-123	
Methyl tert-butyl ether	10.0	9.53	95	66-130	
1,1-Dichloroethane	10.0	10.2	102	66-122	
cis-1,2-Dichloroethene	10.0	9.59	96	73-120	
Bromochloromethane	10.0	9.44	94	73-122	
2-Butanone (MEK)	20.0	23.5	118	37-150	
Chloroform	10.0	9.64	96	72-123	
1,1,1-Trichloroethane	10.0	9.78	98	66-129	
Carbon tetrachloride	10.0	9.90	99	58-145	
Benzene	10.0	9.44	94	75-123	
1,2-Dichloroethane	10.0	10.1	101	63-130	
Trichloroethene	10.0	8.40	84	74-121	
1,2-Dichloropropane	10.0	9.61	96	67-119	
Bromodichloromethane	10.0	9.01	90	62-127	
cis-1,3-Dichloropropene	10.0	9.29	93	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	21.4	107	41-135	
Toluene	10.0	10.5	105	76-129	
trans-1,3-Dichloropropene	10.0	9.94	99	61-136	
1,1,2-Trichloroethane	10.0	10.9	109	74-126	
Tetrachloroethene	10.0	9.28	93	76-128	
2-Hexanone	20.0	21.3	106	37-150	
Dibromochloromethane	10.0	10.4	104	63-131	
1,2-Dibromoethane (EDB)	10.0	9.54	95	76-128	
Chlorobenzene	10.0	9.74	97	79-124	
1,1,1,2-Tetrachloroethane	10.0	10.5	105	70-130	
Ethylbenzene	10.0	9.61	96	77-124	
Xylenes, Total	20.0	18.9	95	76-124	
Styrene	10.0	9.59	96	80-125	
Bromoform	10.0	9.35	93	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.85	99	72-128	
Acrylonitrile	100	115	115	60-130	
1,4-Dioxane	200	188 J	94	26-150	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

SDG No.: _____

Matrix: Water Level: Low

Lab File ID: 51115D05.D

Lab ID: LCS 180-229098/5

Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.5	105	49-135	
Vinyl chloride	10.0	9.73	97	52-136	
Bromomethane	10.0	6.37	64	37-150	
Chloroethane	10.0	12.0	120	44-139	
1,1-Dichloroethene	10.0	9.10	91	64-131	
Acetone	20.0	20.5	102	24-150	
Carbon disulfide	10.0	9.96	100	20-150	
Methylene Chloride	10.0	8.08	81	66-123	
trans-1,2-Dichloroethene	10.0	8.50	85	70-123	
Methyl tert-butyl ether	10.0	8.63	86	66-130	
1,1-Dichloroethane	10.0	8.59	86	66-122	
cis-1,2-Dichloroethene	10.0	7.74	77	73-120	
Bromochloromethane	10.0	7.68	77	73-122	
2-Butanone (MEK)	20.0	17.7	89	37-150	
Chloroform	10.0	7.99	80	72-123	
1,1,1-Trichloroethane	10.0	8.68	87	66-129	
Carbon tetrachloride	10.0	8.75	87	58-145	
Benzene	10.0	7.97	80	75-123	
1,2-Dichloroethane	10.0	8.87	89	63-130	
Trichloroethene	10.0	7.17	72	74-121	*
1,2-Dichloropropane	10.0	8.76	88	67-119	
Bromodichloromethane	10.0	8.26	83	62-127	
cis-1,3-Dichloropropene	10.0	8.90	89	61-127	
4-Methyl-2-pentanone (MIBK)	20.0	16.5	83	41-135	
Toluene	10.0	9.31	93	76-129	
trans-1,3-Dichloropropene	10.0	10.5	105	61-136	
1,1,2-Trichloroethane	10.0	9.38	94	74-126	
Tetrachloroethene	10.0	7.50	75	76-128	*
2-Hexanone	20.0	16.8	84	37-150	
Dibromochloromethane	10.0	9.52	95	63-131	
1,2-Dibromoethane (EDB)	10.0	8.30	83	76-128	
Chlorobenzene	10.0	8.93	89	79-124	
1,1,1,2-Tetrachloroethane	10.0	8.87	89	70-130	
Ethylbenzene	10.0	8.32	83	77-124	
Xylenes, Total	20.0	16.8	84	76-124	
Styrene	10.0	8.31	83	80-125	
Bromoform	10.0	8.25	83	54-136	
1,1,2,2-Tetrachloroethane	10.0	9.06	91	72-128	
Acrylonitrile	100	93.3	93	60-130	
1,4-Dioxane	200	178 J	89	26-150	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 51112D06.D Lab Sample ID: MB 180-228704/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 11/12/2017 19:06
 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 180-228704/4	51112D04.D	11/12/2017 18:07
HD-QC8-0/1-2	180-72047-5	51112D12.D	11/12/2017 21:42
HD-MW-184S-0/1-0	180-72047-2	51112D16.D	11/12/2017 23:19
HD-MW-136A-459.5/460.0	180-72047-4	51112D18.D	11/13/2017 00:07

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 51113D06.D Lab Sample ID: MB 180-228816/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 11/14/2017 01:58
 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 180-228816/4	51113D04.D	11/14/2017 00:59
HD-MW-182-0/1-0	180-72047-1	51113D11.D	11/14/2017 04:14
HD-MW-184S-0/1-0 DL	180-72047-2 DL	51113D22.D	11/14/2017 08:37
HD-MW-181D-0/1-0	180-72047-3	51113D23.D	11/14/2017 09:01

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 51115D07.D Lab Sample ID: MB 180-229098/7
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: CHHP5 Date Analyzed: 11/16/2017 03:22
 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 180-229098/5	51115D05.D	11/16/2017 02:25
HD-MW-184S-0/1-0 RADL	180-72047-2 RADL	51115D22.D	11/16/2017 09:33
HD-MW-136A-459.5/460.0 DL	180-72047-4 DL	51115D24.D	11/16/2017 10:21
HD-MW-181D-0/1-0 DL	180-72047-3 DL	51115D28.D	11/16/2017 11:58

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 50608D01.D BFB Injection Date: 06/08/2017
 Instrument ID: CHHP5 BFB Injection Time: 05:32
 Analysis Batch No.: 213537

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	21.3	
75	30.0 - 60.0 % of mass 95	46.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.6	(0.8) 1
174	50.0 - 120.00 % of mass 95	77.0	
175	5.0 - 9.0 % of mass 174	5.8	(7.5) 1
176	95.0 - 101.0 % of mass 174	75.7	(98.3) 1
177	5.0 - 9.0 % of mass 176	5.6	(7.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-213537/2	50608D02.D	06/08/2017	06:03
	IC 180-213537/3	50608D03.D	06/08/2017	06:27
	ICIS 180-213537/4	50608D04.D	06/08/2017	06:50
	IC 180-213537/5	50608D05.D	06/08/2017	07:24
	IC 180-213537/6	50608D06.D	06/08/2017	07:48
	IC 180-213537/7	50608D07.D	06/08/2017	08:11
	IC 180-213537/8	50608D08.D	06/08/2017	08:35
	IC 180-213537/9	50608D09.D	06/08/2017	08:59
	ICV 180-213537/11	50608D11.D	06/08/2017	09:46

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 50727D01.D BFB Injection Date: 07/27/2017
 Instrument ID: CHHP5 BFB Injection Time: 00:22
 Analysis Batch No.: 218218

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.0	
75	30.0 - 60.0 % of mass 95	47.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.9	
173	Less than 2.0 % of mass 174	0.4	(0.5) 1
174	50.0 - 120.00 % of mass 95	75.4	
175	5.0 - 9.0 % of mass 174	5.4	(7.2) 1
176	95.0 - 101.0 % of mass 174	74.0	(98.2) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-218218/2	50727D02.D	07/27/2017	00:51
	IC 180-218218/3	50727D03.D	07/27/2017	01:15
	ICIS 180-218218/4	50727D04.D	07/27/2017	01:39
	IC 180-218218/5	50727D05.D	07/27/2017	02:02
	IC 180-218218/6	50727D06.D	07/27/2017	02:26
	IC 180-218218/8	50727D08.D	07/27/2017	03:13
	IC 180-218218/10	50727D10.D	07/27/2017	04:00
	IC 180-218218/11	50727D11.D	07/27/2017	04:24
	ICV 180-218218/12	50727D12.D	07/27/2017	05:03

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 51112D01.D BFB Injection Date: 11/12/2017
 Instrument ID: CHHP5 BFB Injection Time: 15:08
 Analysis Batch No.: 228704

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.2	
75	30.0 - 60.0 % of mass 95	48.4	
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	1.2	(1.7) 1
174	50.0 - 120.00 % of mass 95	71.9	
175	5.0 - 9.0 % of mass 174	5.4	(7.4) 1
176	95.0 - 101.0 % of mass 174	69.7	(97.0) 1
177	5.0 - 9.0 % of mass 176	4.4	(6.4) 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 180-228704/2	51112D02.D	11/12/2017	17:04
	LCS 180-228704/4	51112D04.D	11/12/2017	18:07
	MB 180-228704/6	51112D06.D	11/12/2017	19:06
HD-QC8-0/1-2	180-72047-5	51112D12.D	11/12/2017	21:42
HD-MW-184S-0/1-0	180-72047-2	51112D16.D	11/12/2017	23:19
HD-MW-136A-459.5/460.0	180-72047-4	51112D18.D	11/13/2017	00:07

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 51113D01.D BFB Injection Date: 11/13/2017
 Instrument ID: CHHP5 BFB Injection Time: 22:44
 Analysis Batch No.: 228816

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.5	
75	30.0 - 60.0 % of mass 95	46.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	1.2	(1.7) 1
174	50.0 - 120.00 % of mass 95	71.4	
175	5.0 - 9.0 % of mass 174	5.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	68.6	(96.0) 1
177	5.0 - 9.0 % of mass 176	4.0	(5.8) 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 180-228816/2	51113D02.D	11/13/2017	23:53
	LCS 180-228816/4	51113D04.D	11/14/2017	00:59
	MB 180-228816/6	51113D06.D	11/14/2017	01:58
HD-MW-182-0/1-0	180-72047-1	51113D11.D	11/14/2017	04:14
HD-MW-184S-0/1-0 DL	180-72047-2 DL	51113D22.D	11/14/2017	08:37
HD-MW-181D-0/1-0	180-72047-3	51113D23.D	11/14/2017	09:01

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab File ID: 51115D01.D BFB Injection Date: 11/16/2017
 Instrument ID: CHHP5 BFB Injection Time: 00:22
 Analysis Batch No.: 229098

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	24.5
75	30.0 - 60.0 % of mass 95	47.8
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.1
173	Less than 2.0 % of mass 174	0.2 (0.2) 1
174	50.0 - 120.00 % of mass 95	65.3
175	5.0 - 9.0 % of mass 174	5.3 (8.1) 1
176	95.0 - 101.0 % of mass 174	65.2 (99.8) 1
177	5.0 - 9.0 % of mass 176	3.7 (5.7) 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 180-229098/4	51115D04.D	11/16/2017	01:49
	LCS 180-229098/5	51115D05.D	11/16/2017	02:25
	MB 180-229098/7	51115D07.D	11/16/2017	03:22
HD-MW-184S-0/1-0 RADL	180-72047-2 RADL	51115D22.D	11/16/2017	09:33
HD-MW-136A-459.5/460.0 DL	180-72047-4 DL	51115D24.D	11/16/2017	10:21
HD-MW-181D-0/1-0 DL	180-72047-3 DL	51115D28.D	11/16/2017	11:58

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: ICIS 180-213537/4 Date Analyzed: 06/08/2017 06:50
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 50608D04.D Heated Purge: (Y/N) N
 Calibration ID: 34799

	TBA _d 9		FB		CBN _{Zd} 5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	265733	4.34	343353	7.34	84081	10.43
UPPER LIMIT	531466	4.84	686706	7.84	168162	10.93
LOWER LIMIT	132867	3.84	171677	6.84	42041	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-213537/11	237564	4.34	310218	7.34	78824	10.43

TBA_d9 = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN_{Zd}5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: ICIS 180-213537/4 Date Analyzed: 06/08/2017 06:50
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 50608D04.D Heated Purge: (Y/N) N
 Calibration ID: 34799

	DCBd4		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	124675	12.78				
UPPER LIMIT	249350	13.28				
LOWER LIMIT	62338	12.28				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-213537/11		117362	12.78			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: ICIS 180-218218/4 Date Analyzed: 07/27/2017 01:39
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 50727D04.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	TBA _d 9		FB		CBN _{Zd} 5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	240414	4.33	539679	7.30	132843	10.41
UPPER LIMIT	480828	4.83	1079358	7.80	265686	10.91
LOWER LIMIT	120207	3.83	269840	6.80	66422	9.91
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-218218/12	309556	4.31	616746	7.30	146808	10.41

TBA_d9 = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN_{Zd}5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: ICIS 180-218218/4 Date Analyzed: 07/27/2017 01:39
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 50727D04.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	DCBd4		AREA #	RT #	AREA #	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	174621	12.77				
UPPER LIMIT	349242	13.27				
LOWER LIMIT	87311	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 180-218218/12		194967	12.78			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: CCVIS 180-228704/2 Date Analyzed: 11/12/2017 17:04
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51112D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	TBA _{d9}		FB		CBN _{Zd5}		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	217275	4.39	584387	7.34	124952	10.43	
UPPER LIMIT	434550	4.89	1168774	7.84	249904	10.93	
LOWER LIMIT	108638	3.89	292194	6.84	62476	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228704/4	237655	4.38	484595	7.34	109400	10.43	
MB 180-228704/6	236520	4.37	500950	7.34	117961	10.43	
180-72047-5	HD-QC8-0/1-2	214792	4.36	484863	7.34	114879	10.43
180-72047-2	HD-MW-184S-0/1-0	209249	4.36	468294	7.34	113892	10.43
180-72047-4	HD-MW-136A-459.5/460. 0	228851	4.36	577462	7.34	123603	10.43

TBA_{d9} = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN_{Zd5} = 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.: 180-72047-1
 SDG No.: _____
 Sample No.: CCVIS 180-228704/2 Date Analyzed: 11/12/2017 17:04
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51112D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	DCBd4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	171161	12.77				
UPPER LIMIT	342322	13.27				
LOWER LIMIT	85581	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 180-228704/4		154657	12.77			
MB 180-228704/6		158689	12.78			
180-72047-5	HD-QC8-0/1-2	153106	12.77			
180-72047-2	HD-MW-184S-0/1-0	145612	12.77			
180-72047-4	HD-MW-136A-459.5/460. 0	187306	12.78			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: CCVIS 180-228816/2 Date Analyzed: 11/13/2017 23:53
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51113D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	TBA _{d9}		FB		CBN _{Zd5}		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	250718	4.39	604768	7.34	130770	10.43	
UPPER LIMIT	501436	4.89	1209536	7.84	261540	10.93	
LOWER LIMIT	125359	3.89	302384	6.84	65385	9.93	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228816/4	251026	4.39	562477	7.35	122879	10.43	
MB 180-228816/6	248439	4.37	550641	7.35	124434	10.43	
180-72047-1	HD-MW-182-0/1-0	236129	4.37	533535	7.35	123811	10.43
180-72047-2 DL	HD-MW-184S-0/1-0 DL	212812	4.37	477213	7.34	117331	10.43
180-72047-3	HD-MW-181D-0/1-0	225005	4.36	496768	7.34	123169	10.43

TBA_{d9} = TBA-d₉ (IS)

FB = Fluorobenzene (IS)

CBN_{Zd5} = 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.: 180-72047-1
 SDG No.: _____
 Sample No.: CCVIS 180-228816/2 Date Analyzed: 11/13/2017 23:53
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51113D02.D Heated Purge: (Y/N) N
 Calibration ID: 35038

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		186022	12.77				
UPPER LIMIT		372044	13.27				
LOWER LIMIT		93011	12.27				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-228816/4		181206	12.77				
MB 180-228816/6		161207	12.77				
180-72047-1	HD-MW-182-0/1-0	161895	12.77				
180-72047-2 DL	HD-MW-184S-0/1-0 DL	139647	12.78				
180-72047-3	HD-MW-181D-0/1-0	146147	12.78				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: CCVIS 180-229098/4 Date Analyzed: 11/16/2017 01:49
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51115D04.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	TBA _d 9		FB		CBN _{Zd} 5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	274114	4.38	654684	7.35	137160	10.44	
UPPER LIMIT	548228	4.88	1309368	7.85	274320	10.94	
LOWER LIMIT	137057	3.88	327342	6.85	68580	9.94	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 180-229098/5	297301	4.37	726800	7.35	152543	10.45	
MB 180-229098/7	330734	4.35	746059	7.35	175998	10.45	
180-72047-2 RADL	HD-MW-184S-0/1-0 RADL	259400	4.36	621015	7.35	146539	10.44
180-72047-4 DL	HD-MW-136A-459.5/460.0 DL	224205	4.35	571694	7.35	135119	10.44
180-72047-3 DL	HD-MW-181D-0/1-0 DL	229952	4.35	536633	7.35	134688	10.44

TBA_d9 = TBA-d9 (IS)

FB = Fluorobenzene (IS)

CBN_{Zd}5 = Chlorobenzene-d5

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Sample No.: CCVIS 180-229098/4 Date Analyzed: 11/16/2017 01:49
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm)
 Lab File ID (Standard): 51115D04.D Heated Purge: (Y/N) N
 Calibration ID: 35038

	DCBd4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	186001	12.79				
UPPER LIMIT	372002	13.29				
LOWER LIMIT	93001	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 180-229098/5		196111	12.79			
MB 180-229098/7		246794	12.79			
180-72047-2 RADL	HD-MW-184S-0/1-0 RADL	195678	12.79			
180-72047-4 DL	HD-MW-136A-459.5/460. 0 DL	179469	12.79			
180-72047-3 DL	HD-MW-181D-0/1-0 DL	182329	12.78			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-182-0/1-0 Lab Sample ID: 180-72047-1
 Matrix: Water Lab File ID: 51113D11.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:20
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 04:14
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U ^c	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U ^c	1.0	0.89
75-00-3	Chloroethane	1.0	U ^c	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.2		1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	15		1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-182-0/1-0 Lab Sample ID: 180-72047-1
 Matrix: Water Lab File ID: 51113D11.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:20
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 04:14
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D11.D
 Lims ID: 180-72047-A-1
 Client ID: HD-MW-182-0/1-0
 Sample Type: Client
 Inject. Date: 14-Nov-2017 04:14:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-011
 Misc. Info.: 180-72047-A-1
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:34 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf

Date: 14-Nov-2017 21:06:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.367	4.366	0.001	0	236129	1000.0	
* 2 Fluorobenzene (IS)	96	7.346	7.340	0.006	99	533535	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.429	0.001	86	123811	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.771	0.000	97	161895	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.623	6.614	0.009	92	130620	50.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.984	0.010	0	170928	54.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.985	-0.003	94	460453	46.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.609	11.612	-0.003	84	147749	41.5	
12 Chloromethane	50		1.894				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.338				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.415				ND	
24 Acetone	43	3.552	3.530	0.022	64	8159	5.85	
26 Carbon disulfide	76		3.701				ND	
31 Methylene Chloride	84		4.224				ND	
33 Acrylonitrile	53		4.613				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.661				ND	
37 1,1-Dichloroethane	63		5.270				ND	
45 cis-1,2-Dichloroethene	96		6.011				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83	6.434	6.443	-0.009	31	4130	0.7992	M
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.766				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130	7.723	7.726	-0.003	96	20300	6.22	
67 1,2-Dichloropropane	63		8.000				ND	
70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.280				ND	
74 cis-1,3-Dichloropropene	75		8.718				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.052				ND	
77 trans-1,3-Dichloropropene	75		9.301				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164	9.560	9.563	-0.003	94	170833	72.6	
82 2-Hexanone	43		9.709				ND	
84 Chlorodibromomethane	129		9.861				ND	
85 Ethylene Dibromide	107		9.977				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.095				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D11.D

Injection Date: 14-Nov-2017 04:14:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-A-1

Lab Sample ID: 180-72047-1

Worklist Smp#: 11

Client ID: HD-MW-182-0/1-0

Purge Vol: 5.000 mL

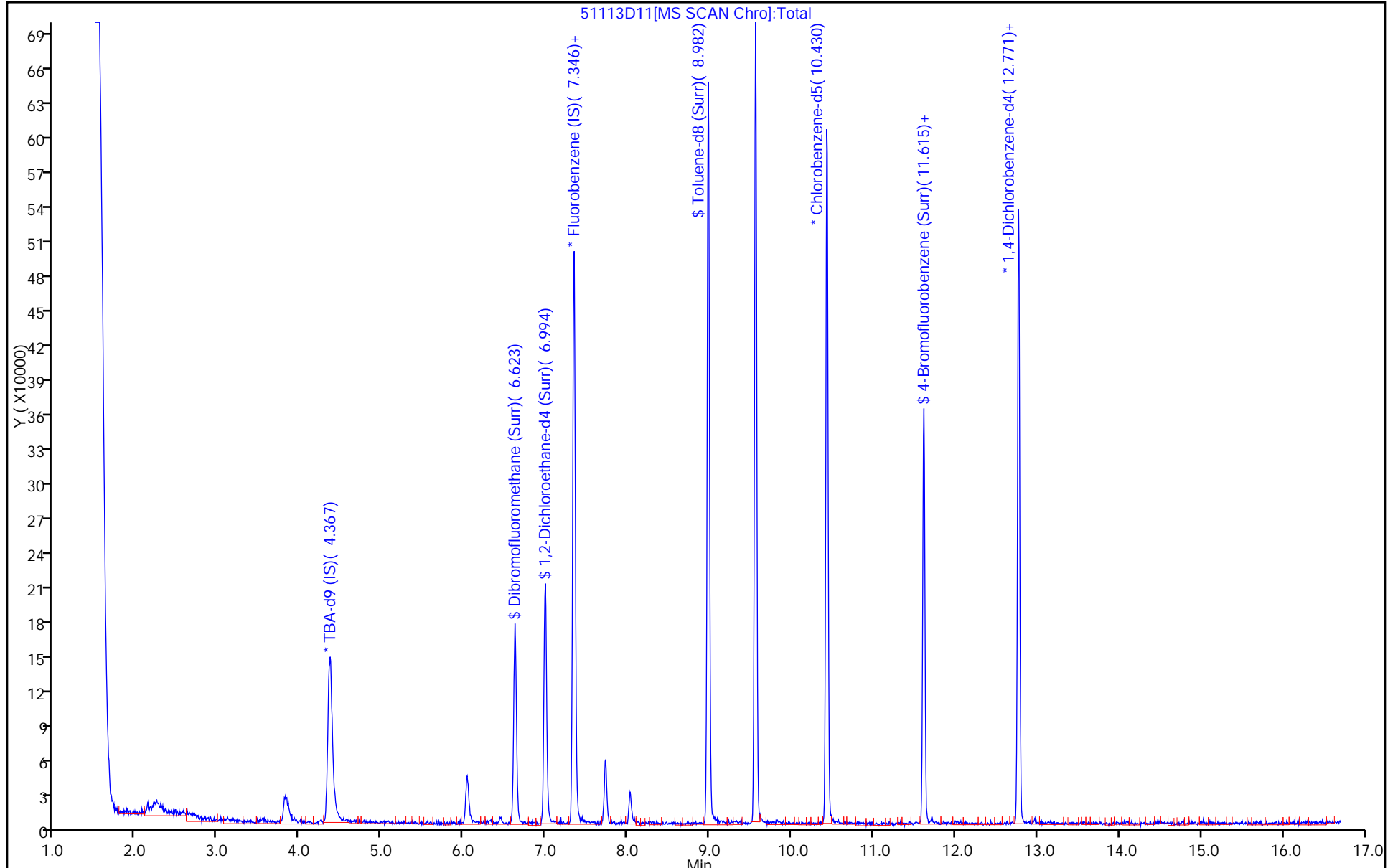
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D11.D
 Lims ID: 180-72047-A-1
 Client ID: HD-MW-182-0/1-0
 Sample Type: Client
 Inject. Date: 14-Nov-2017 04:14:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-011
 Misc. Info.: 180-72047-A-1
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:34 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf Date: 14-Nov-2017 21:06:33

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.9	101.76
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.6	109.18
\$ 7 Toluene-d8 (Surr)	50.0	46.7	93.46
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.5	83.03

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D11.D

Injection Date: 14-Nov-2017 04:14:30

Instrument ID: CHHP5

Lims ID: 180-72047-A-1

Lab Sample ID: 180-72047-1

Client ID: HD-MW-182-0/1-0

Operator ID: 034635

ALS Bottle#: 11 Worklist Smp#: 11

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

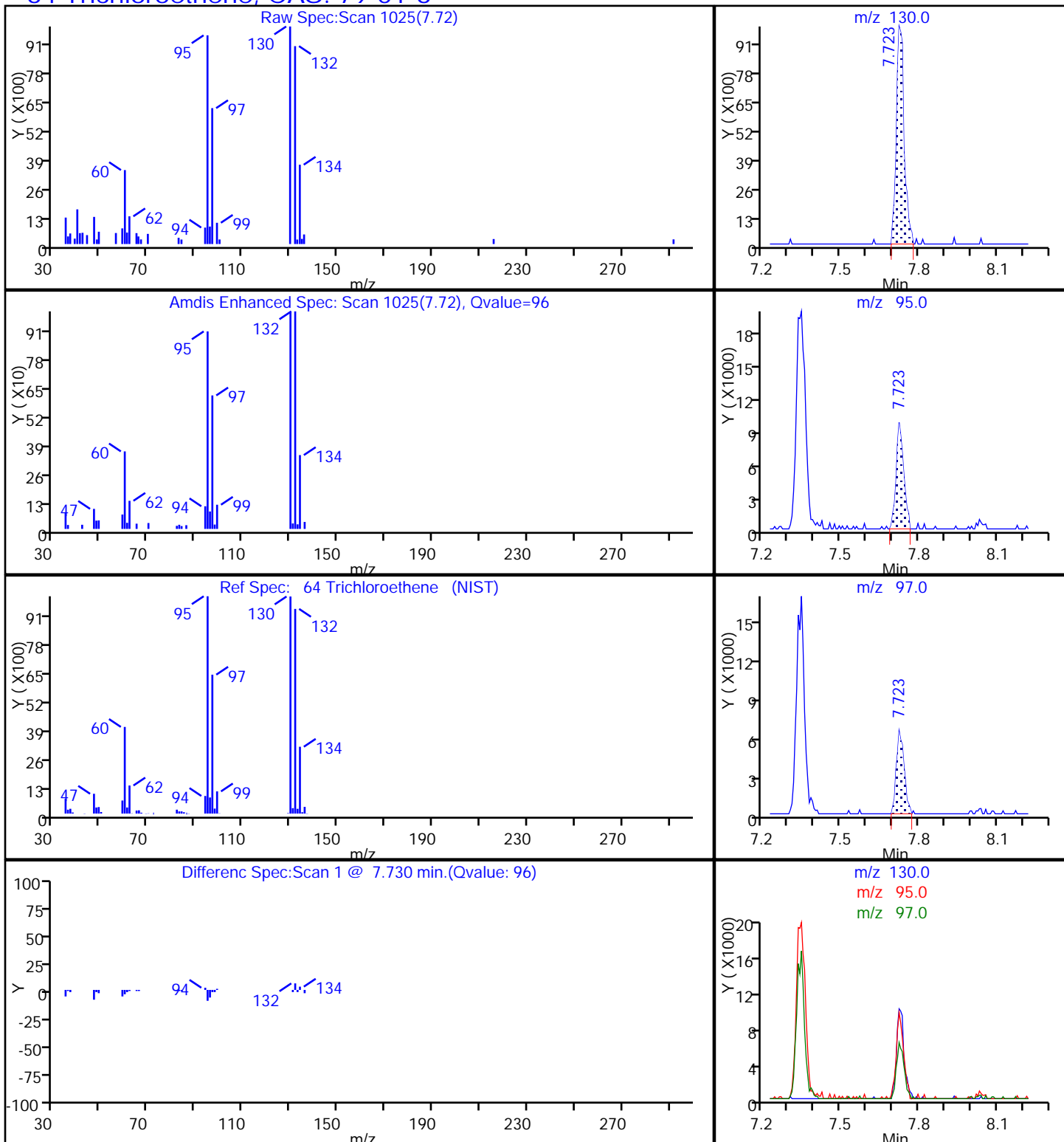
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D11.D

Injection Date: 14-Nov-2017 04:14:30

Instrument ID: CHHP5

Lims ID: 180-72047-A-1

Lab Sample ID: 180-72047-1

Client ID: HD-MW-182-0/1-0

Operator ID: 034635

ALS Bottle#: 11

Worklist Smp#: 11

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

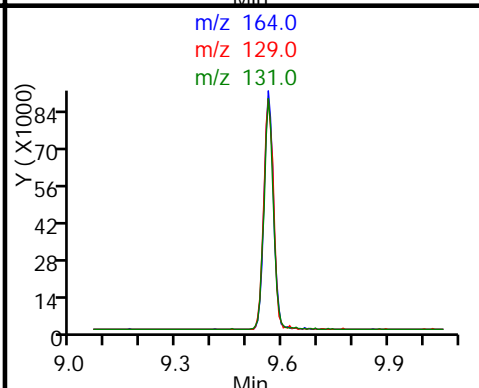
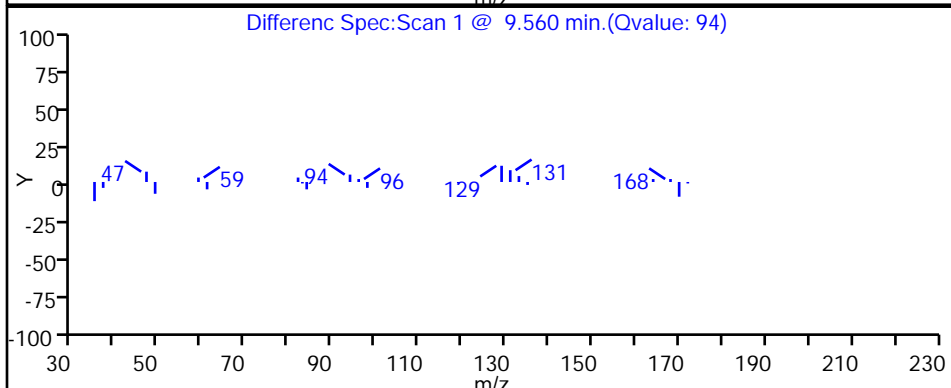
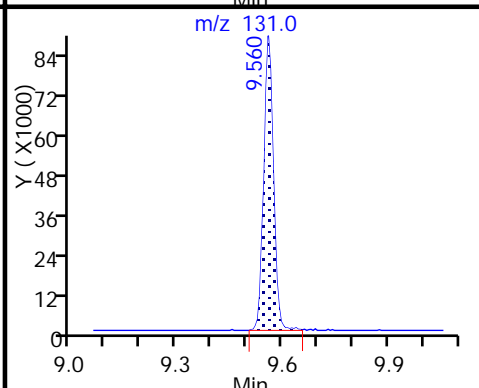
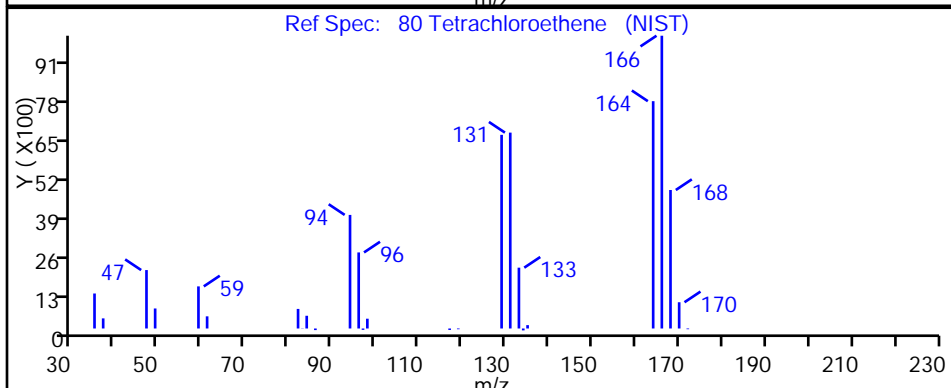
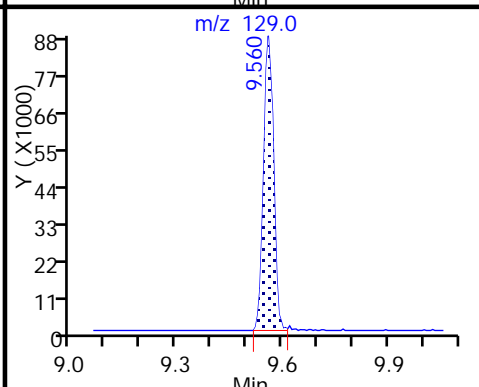
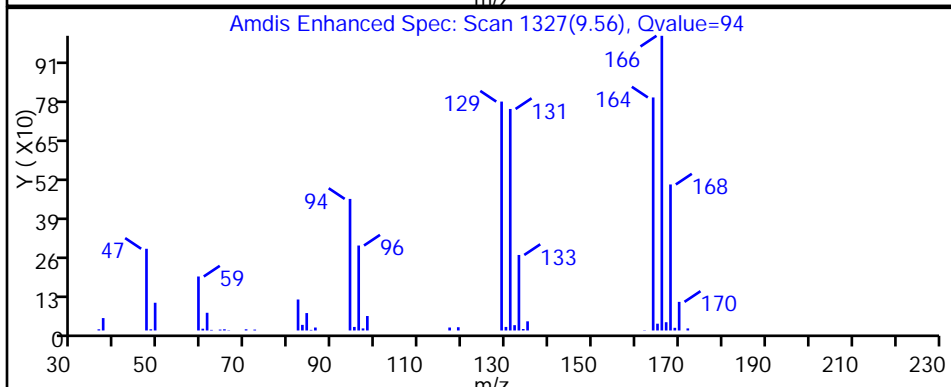
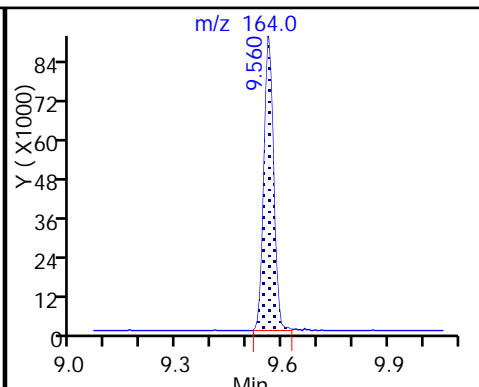
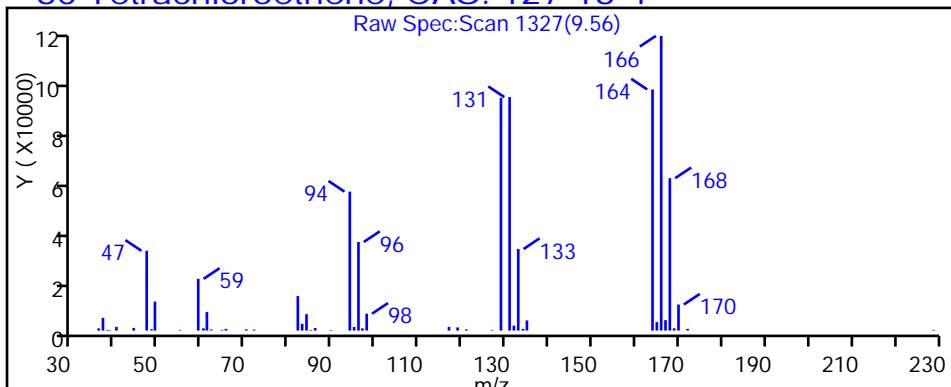
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

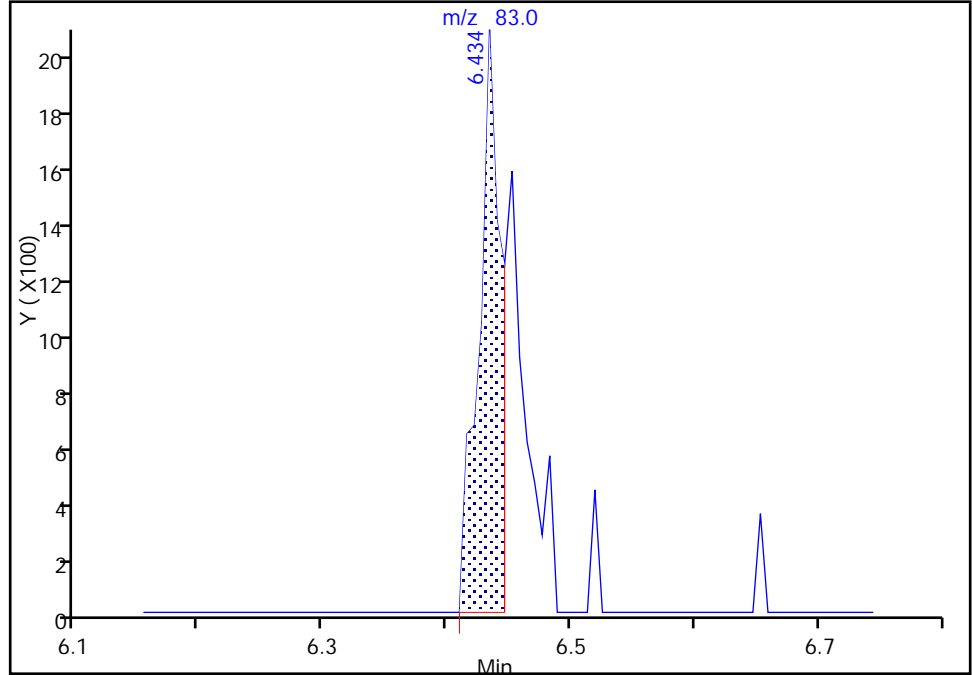
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D11.D
Injection Date: 14-Nov-2017 04:14:30 Instrument ID: CHHP5
Lims ID: 180-72047-A-1 Lab Sample ID: 180-72047-1
Client ID: HD-MW-182-0/1-0
Operator ID: 034635 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

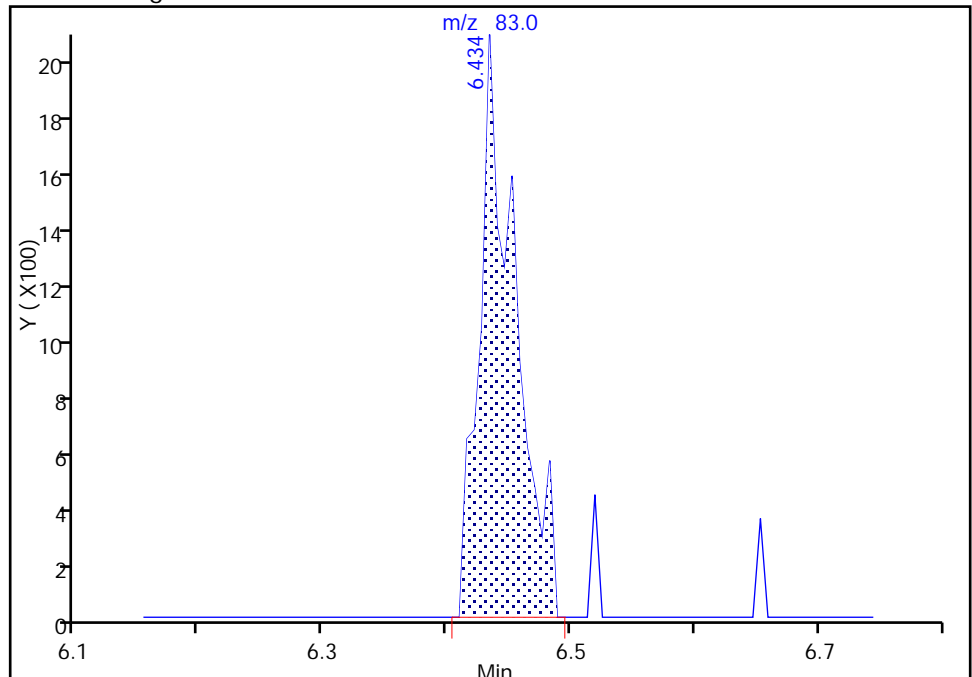
RT: 6.43
Area: 2547
Amount: 0.492873
Amount Units: ng

Processing Integration Results



RT: 6.43
Area: 4130
Amount: 0.799201
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 14-Nov-2017 21:06:08
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-184S-0/1-0 Lab Sample ID: 180-72047-2
 Matrix: Water Lab File ID: 51112D16.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:15
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 23:19
 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.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U *	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U ^c	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U ^c	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	31	U ^c	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	65	E	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-184S-0/1-0 Lab Sample ID: 180-72047-2
 Matrix: Water Lab File ID: 51112D16.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:15
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 23:19
 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.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U *	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		65-121
2037-26-5	Toluene-d8 (Surr)	91		73-120
460-00-4	4-Bromofluorobenzene (Surr)	80		80-120
1868-53-7	Dibromofluoromethane (Surr)	109		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D16.D
 Lims ID: 180-72047-C-2
 Client ID: HD-MW-184S-0/1-0
 Sample Type: Client
 Inject. Date: 12-Nov-2017 23:19:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-016
 Misc. Info.: 180-72047-C-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf

Date: 13-Nov-2017 20:48:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.369	-0.006	0	209249	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.343	0.000	99	468294	50.0	
* 3 Chlorobenzene-d5	119	10.432	10.432	0.000	87	113892	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.774	0.000	98	145612	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.625	6.623	0.002	93	122586	54.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.996	6.988	0.008	0	159889	58.2	
\$ 7 Toluene-d8 (Surr)	98	8.985	8.983	0.002	93	413236	45.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.616	0.002	85	131304	40.1	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.014				ND	
15 Bromomethane	94		2.366				ND	
16 Chloroethane	64		2.458				ND	
22 1,1-Dichloroethene	96		3.425				ND	
24 Acetone	43	3.548	3.540	0.008	82	10666	8.71	
26 Carbon disulfide	76		3.704				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.617				ND	
34 trans-1,2-Dichloroethene	96		4.647				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96	6.017	6.009	0.008	41	6254	2.09	
46 2-Butanone (MEK)	43		6.027				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.443	6.441	0.002	95	8533	1.88	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		7.000				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.726	7.724	0.002	98	441743	154.2	
67 1,2-Dichloropropane	63		7.998				ND	
70 1,4-Dioxane	88		8.077				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.278				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.880				ND	
76 Toluene	91		9.050				ND	
77 trans-1,3-Dichloropropene	75		9.299				ND	
79 1,1,2-Trichloroethane	97		9.488				ND	
80 Tetrachloroethene	164	9.563	9.561	0.002	92	698864	322.7	E
82 2-Hexanone	43		9.707				ND	
84 Chlorodibromomethane	129		9.859				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.461				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.692				ND	
92 o-Xylene	106		11.075				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.276				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

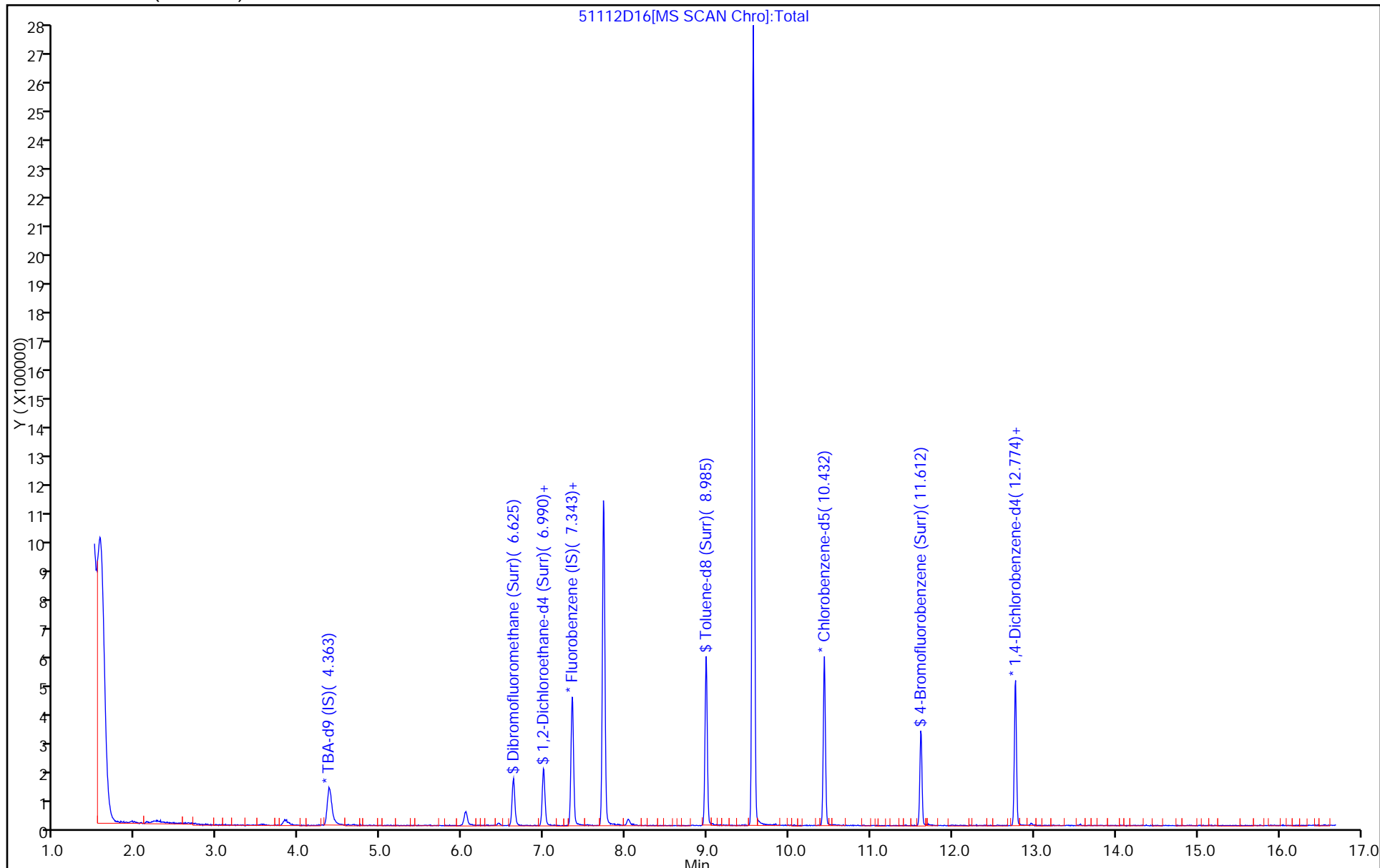
Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D16.D
Injection Date: 12-Nov-2017 23:19:30 Instrument ID: CHHP5
Lims ID: 180-72047-C-2 Lab Sample ID: 180-72047-2
Client ID: HD-MW-184S-0/1-0
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm)

Operator ID: 034635
Worklist Smp#: 16
ALS Bottle#: 16



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D16.D
 Lims ID: 180-72047-C-2
 Client ID: HD-MW-184S-0/1-0
 Sample Type: Client
 Inject. Date: 12-Nov-2017 23:19:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-016
 Misc. Info.: 180-72047-C-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf

Date: 13-Nov-2017 20:48:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	54.4	108.81
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.2	116.36
\$ 7 Toluene-d8 (Surr)	50.0	45.6	91.18
\$ 8 4-Bromofluorobenzene (Surr)	50.0	40.1	80.22

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D16.D

Injection Date: 12-Nov-2017 23:19:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-2

Lab Sample ID: 180-72047-2

Client ID: HD-MW-184S-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

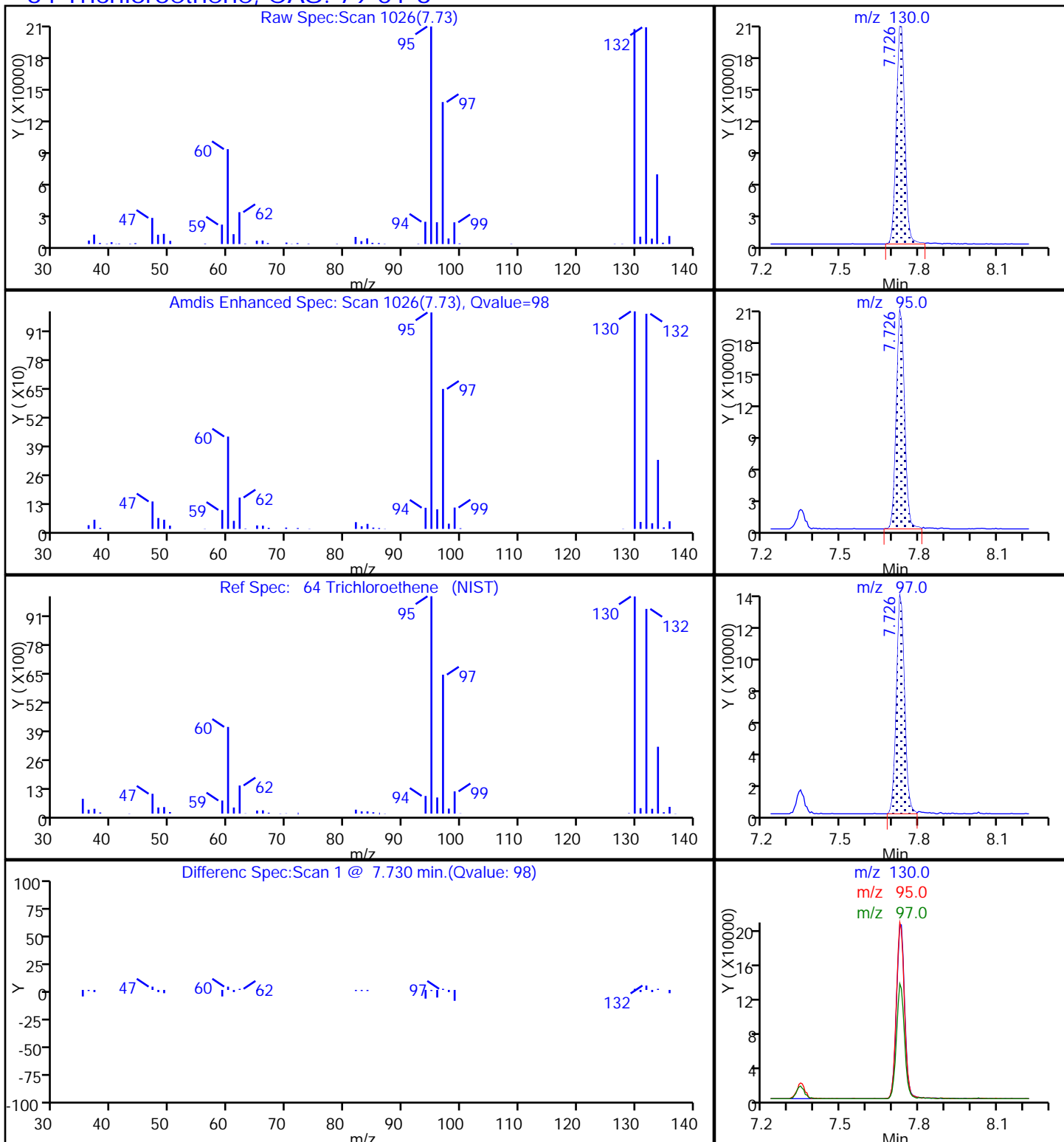
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D16.D

Injection Date: 12-Nov-2017 23:19:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-2

Lab Sample ID: 180-72047-2

Client ID: HD-MW-184S-0/1-0

Operator ID: 034635

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

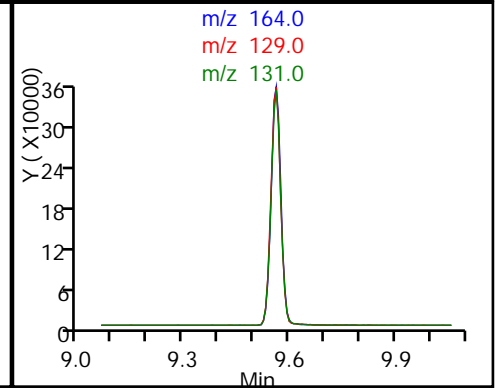
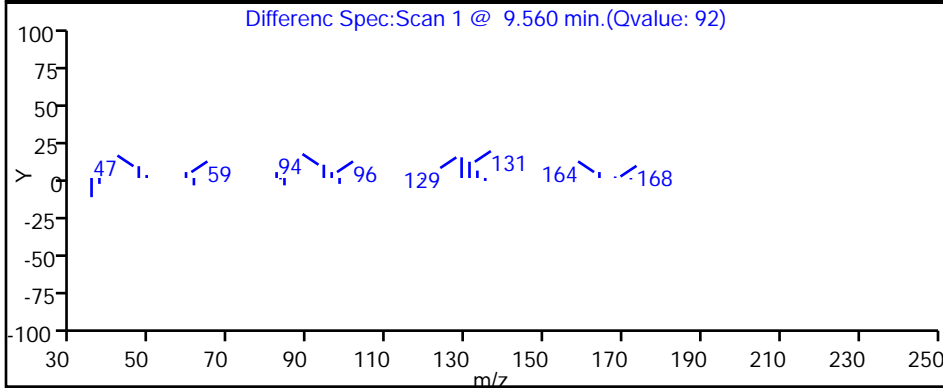
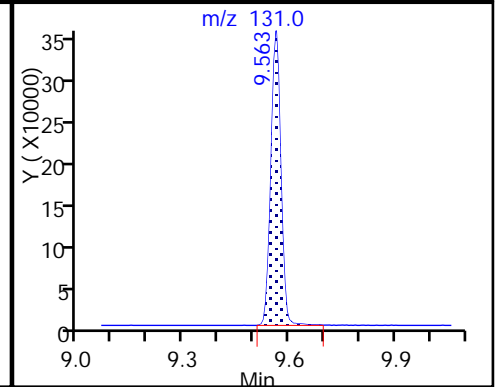
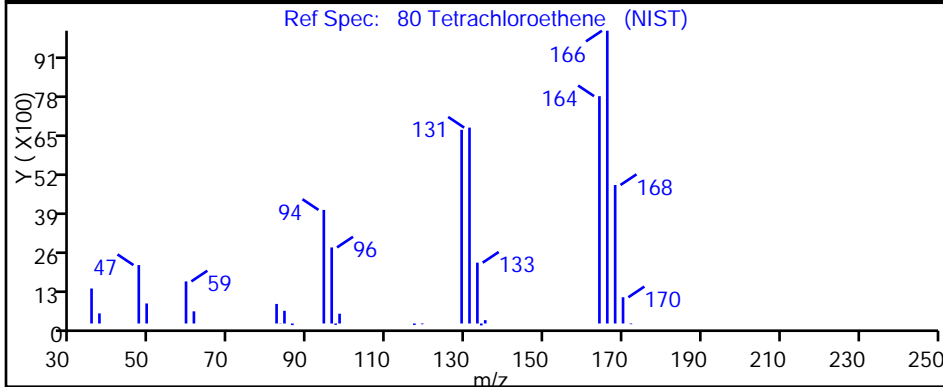
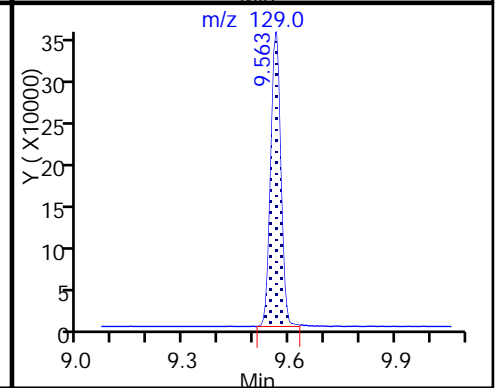
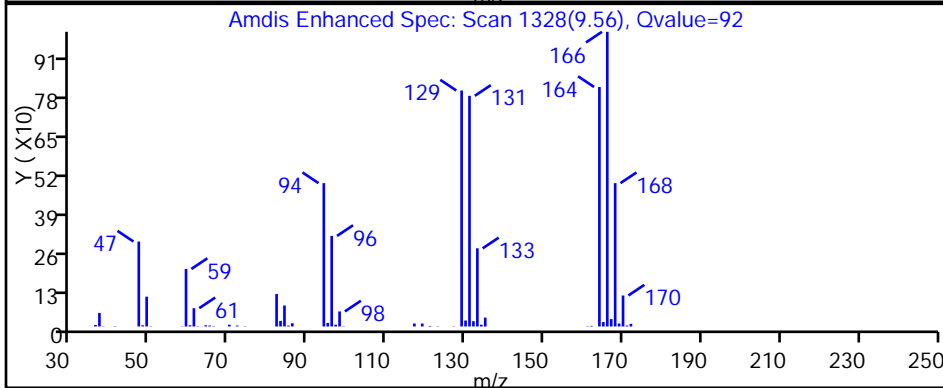
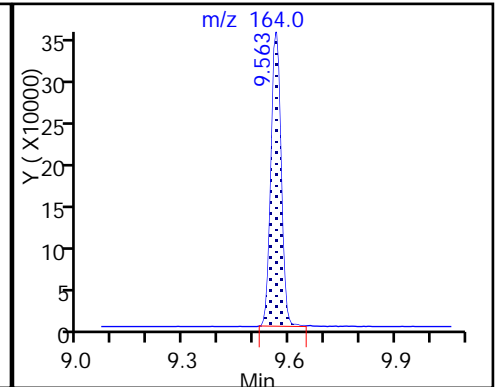
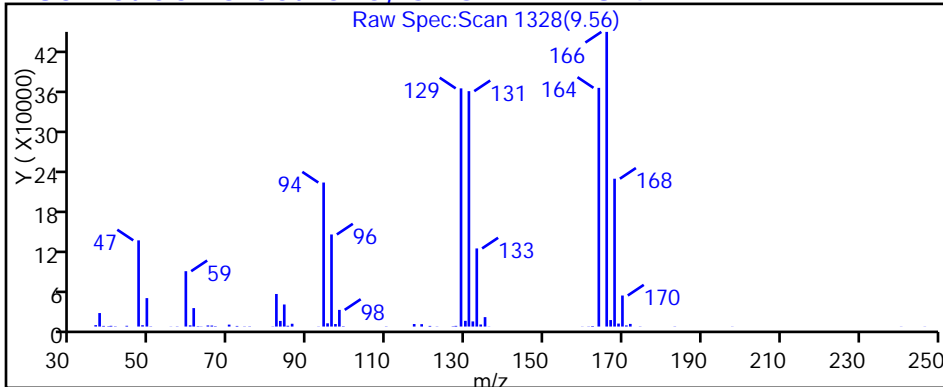
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-184S-0/1-0 DL Lab Sample ID: 180-72047-2 DL
 Matrix: Water Lab File ID: 51113D22.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:15
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 08:37
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U ^c	5.0	4.5
75-01-4	Vinyl chloride	5.0	U	5.0	4.4
74-83-9	Bromomethane	5.0	U ^c	5.0	4.4
75-00-3	Chloroethane	5.0	U ^c	5.0	4.5
75-35-4	1,1-Dichloroethene	5.0	U	5.0	2.8
67-64-1	Acetone	25	U	25	17
75-15-0	Carbon disulfide	5.0	U	5.0	4.4
75-09-2	Methylene Chloride	5.0	U	5.0	1.8
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	3.4
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	3.0
75-34-3	1,1-Dichloroethane	5.0	U	5.0	3.1
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	3.5
74-97-5	Bromochloromethane	5.0	U	5.0	3.1
78-93-3	2-Butanone (MEK)	25	U	25	13
67-66-3	Chloroform	5.0	U	5.0	3.0
71-55-6	1,1,1-Trichloroethane	5.0	U	5.0	3.0
56-23-5	Carbon tetrachloride	5.0	U	5.0	4.4
71-43-2	Benzene	5.0	U	5.0	3.0
107-06-2	1,2-Dichloroethane	5.0	U	5.0	2.9
79-01-6	Trichloroethene	20		5.0	3.4
78-87-5	1,2-Dichloropropane	5.0	U	5.0	3.3
75-27-4	Bromodichloromethane	5.0	U	5.0	3.2
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	3.0
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	15
108-88-3	Toluene	5.0	U	5.0	2.3
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	2.9
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	2.3
127-18-4	Tetrachloroethene	39		5.0	2.3
591-78-6	2-Hexanone	25	U	25	16
124-48-1	Dibromochloromethane	5.0	U	5.0	4.2
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	2.5
108-90-7	Chlorobenzene	5.0	U	5.0	2.5
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	2.9
100-41-4	Ethylbenzene	5.0	U	5.0	2.5
1330-20-7	Xylenes, Total	10	U	10	4.5
100-42-5	Styrene	5.0	U	5.0	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-184S-0/1-0 DL Lab Sample ID: 180-72047-2 DL
 Matrix: Water Lab File ID: 51113D22.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:15
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 08:37
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	4.9
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	3.0
107-13-1	Acrylonitrile	100	U	100	39
123-91-1	1,4-Dioxane	1000	U	1000	68

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122	X	65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	78	X	80-120
1868-53-7	Dibromofluoromethane (Surr)	117		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D22.D
 Lims ID: 180-72047-B-2
 Client ID: HD-MW-184S-0/1-0
 Sample Type: Client
 Inject. Date: 14-Nov-2017 08:37:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 5.0000
 Sample Info: 180-0019287-022
 Misc. Info.: 180-72047-B-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:21:32 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 13:20:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.370	4.366	0.004	0	212812	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.340	0.004	98	477213	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.429	0.004	86	117331	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.771	0.003	97	139647	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.614	0.006	91	134860	58.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.984	0.007	0	170338	60.8	
\$ 7 Toluene-d8 (Surr)	98	8.986	8.985	0.001	94	432869	46.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	84	131364	39.0	
12 Chloromethane	50		1.894				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.338				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.415				ND	
24 Acetone	43		3.530				ND	
26 Carbon disulfide	76		3.701				ND	
31 Methylene Chloride	84		4.224				ND	
33 Acrylonitrile	53		4.613				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.661				ND	
37 1,1-Dichloroethane	63		5.270				ND	
45 cis-1,2-Dichloroethene	96		6.011				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83	6.450	6.443	0.007	94	5034	1.09	
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.766				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130	7.727	7.726	0.001	97	56953	19.5	
67 1,2-Dichloropropane	63		8.000				ND	
70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.280				ND	
74 cis-1,3-Dichloropropene	75		8.718				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.052				ND	
77 trans-1,3-Dichloropropene	75		9.301				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164	9.557	9.563	-0.006	92	87896	39.4	
82 2-Hexanone	43		9.709				ND	
84 Chlorodibromomethane	129		9.861				ND	
85 Ethylene Dibromide	107		9.977				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.095				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D22.D

Injection Date: 14-Nov-2017 08:37:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-B-2

Lab Sample ID: 180-72047-2

Worklist Smp#: 22

Client ID: HD-MW-184S-0/1-0

Purge Vol: 5.000 mL

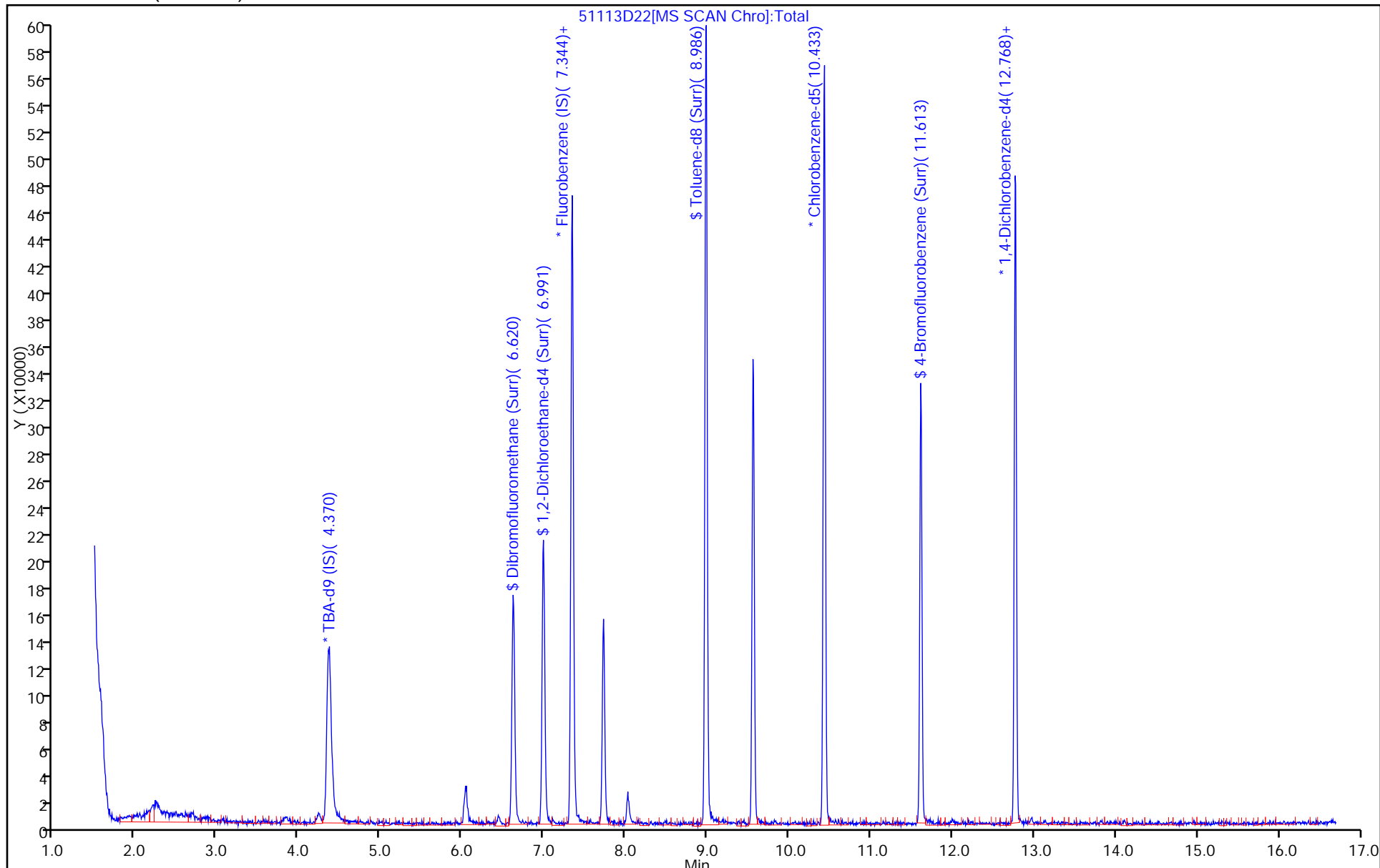
Dil. Factor: 5.0000

ALS Bottle#: 22

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D22.D
 Lims ID: 180-72047-B-2
 Client ID: HD-MW-184S-0/1-0
 Sample Type: Client
 Inject. Date: 14-Nov-2017 08:37:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 5.0000
 Sample Info: 180-0019287-022
 Misc. Info.: 180-72047-B-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:21:32 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

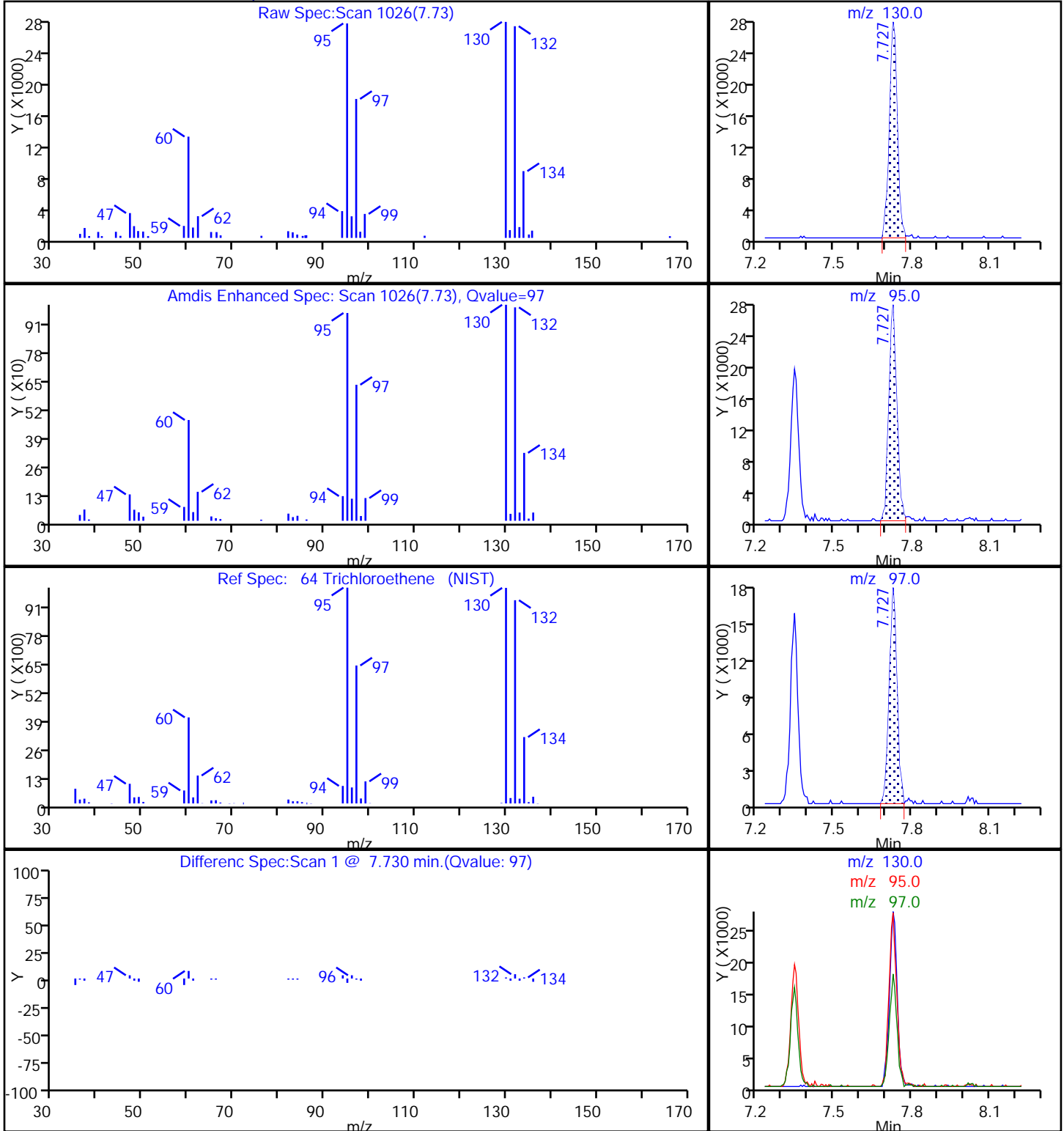
Date: 16-Nov-2017 13:20:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	58.7	117.47
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	60.8	121.65
\$ 7 Toluene-d8 (Surr)	50.0	46.4	92.71
\$ 8 4-Bromofluorobenzene (Surr)	50.0	39.0	77.90

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D22.D
Injection Date: 14-Nov-2017 08:37:30 Instrument ID: CHHP5
Lims ID: 180-72047-B-2 Lab Sample ID: 180-72047-2
Client ID: HD-MW-184S-0/1-0
Operator ID: 034635 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D22.D

Injection Date: 14-Nov-2017 08:37:30

Instrument ID: CHHP5

Lims ID: 180-72047-B-2

Lab Sample ID: 180-72047-2

Client ID: HD-MW-184S-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

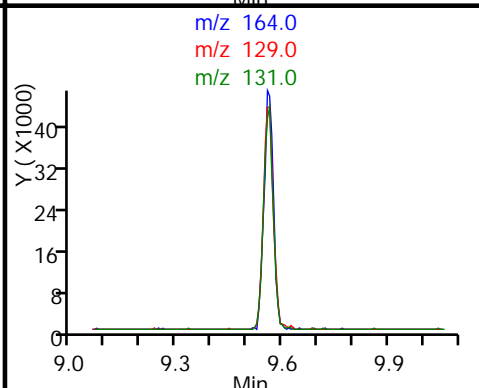
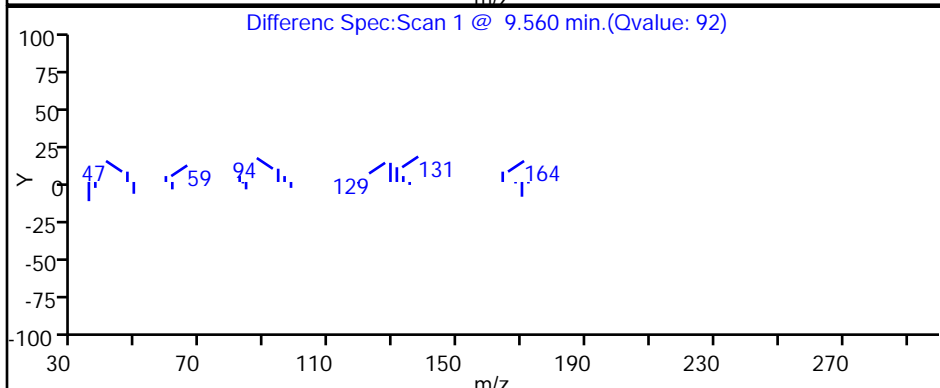
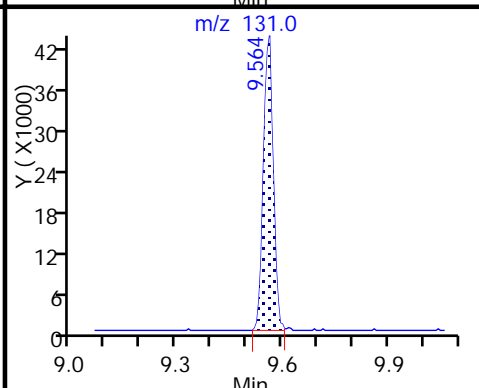
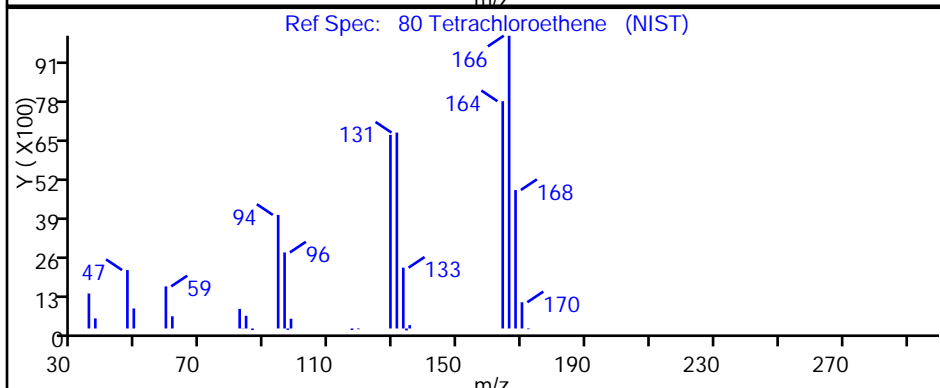
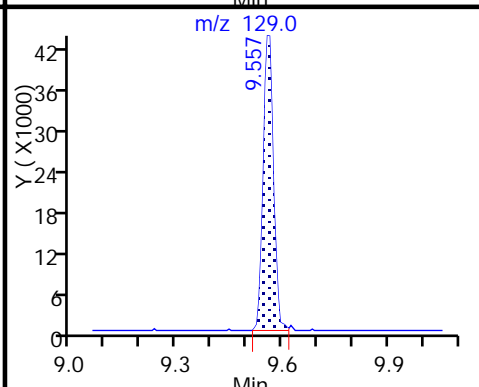
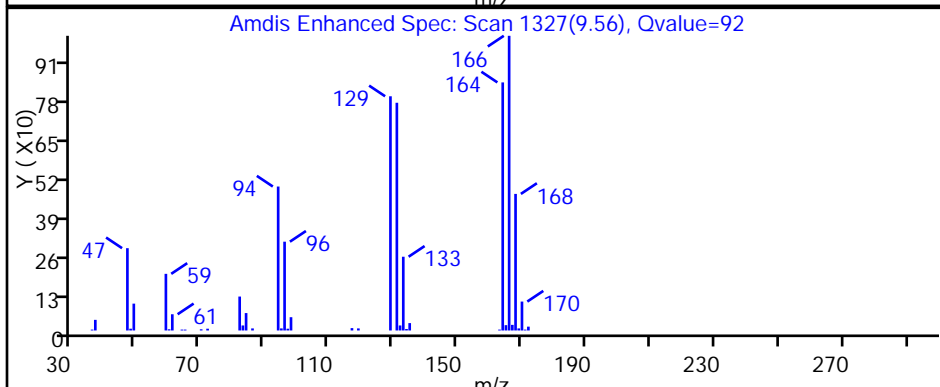
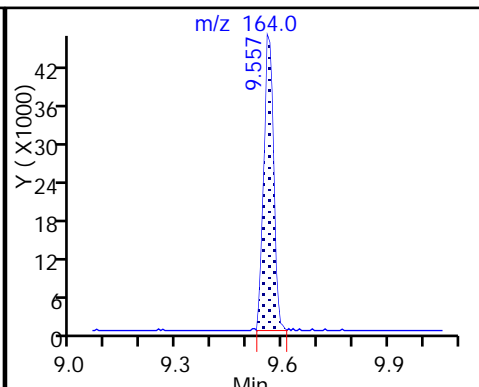
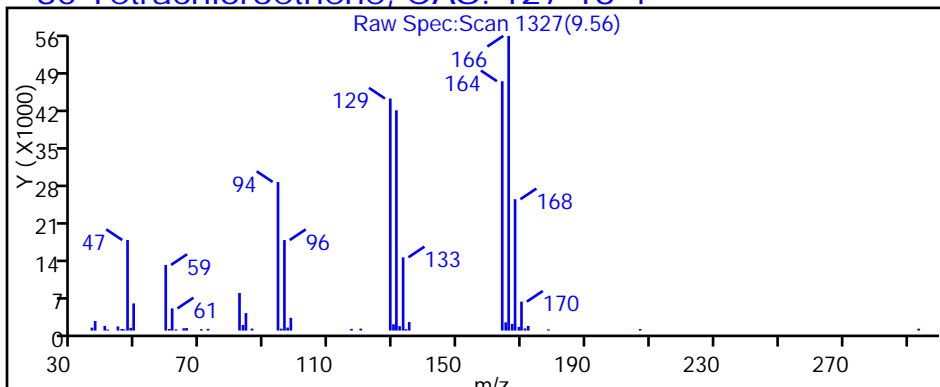
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-184S-0/1-0 RADL Lab Sample ID: 180-72047-2 RADL
 Matrix: Water Lab File ID: 51115D22.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:15
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 09:33
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U H	5.0	4.5
75-01-4	Vinyl chloride	5.0	U H	5.0	4.4
74-83-9	Bromomethane	5.0	U H	5.0	4.4
75-00-3	Chloroethane	5.0	U H	5.0	4.5
75-35-4	1,1-Dichloroethene	5.0	U H	5.0	2.8
67-64-1	Acetone	25	U H	25	17
75-15-0	Carbon disulfide	5.0	U H	5.0	4.4
75-09-2	Methylene Chloride	5.0	U H	5.0	1.8
156-60-5	trans-1,2-Dichloroethene	5.0	U H	5.0	3.4
1634-04-4	Methyl tert-butyl ether	5.0	U H	5.0	3.0
75-34-3	1,1-Dichloroethane	5.0	U H	5.0	3.1
156-59-2	cis-1,2-Dichloroethene	5.0	U H	5.0	3.5
74-97-5	Bromochloromethane	5.0	U H	5.0	3.1
78-93-3	2-Butanone (MEK)	25	U H	25	13
67-66-3	Chloroform	5.0	U H	5.0	3.0
71-55-6	1,1,1-Trichloroethane	5.0	U H	5.0	3.0
56-23-5	Carbon tetrachloride	5.0	U H	5.0	4.4
71-43-2	Benzene	5.0	U H	5.0	3.0
107-06-2	1,2-Dichloroethane	5.0	U H	5.0	2.9
79-01-6	Trichloroethene	18	H ^c *	5.0	3.4
78-87-5	1,2-Dichloropropane	5.0	U H	5.0	3.3
75-27-4	Bromodichloromethane	5.0	U H	5.0	3.2
10061-01-5	cis-1,3-Dichloropropene	5.0	U H	5.0	3.0
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U H	25	15
108-88-3	Toluene	5.0	U H	5.0	2.3
10061-02-6	trans-1,3-Dichloropropene	5.0	U H	5.0	2.9
79-00-5	1,1,2-Trichloroethane	5.0	U H	5.0	2.3
127-18-4	Tetrachloroethene	38	H *	5.0	2.3
591-78-6	2-Hexanone	25	U H	25	16
124-48-1	Dibromochloromethane	5.0	U H	5.0	4.2
106-93-4	1,2-Dibromoethane (EDB)	5.0	U H	5.0	2.5
108-90-7	Chlorobenzene	5.0	U H	5.0	2.5
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U H	5.0	2.9
100-41-4	Ethylbenzene	5.0	U H	5.0	2.5

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-184S-0/1-0 RADL Lab Sample ID: 180-72047-2 RADL
 Matrix: Water Lab File ID: 51115D22.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:15
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 09:33
 Soil Aliquot Vol: _____ Dilution Factor: 5
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	10	U H	10	4.5
100-42-5	Styrene	5.0	U H	5.0	2.4
75-25-2	Bromoform	5.0	U H	5.0	4.9
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U H	5.0	3.0
107-13-1	Acrylonitrile	100	U H	100	39
123-91-1	1,4-Dioxane	1000	U H	1000	68

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		65-121
2037-26-5	Toluene-d8 (Surr)	99		73-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D22.D
 Lims ID: 180-72047-B-2
 Client ID: HD-MW-184S-0/1-0
 Sample Type: Client
 Inject. Date: 16-Nov-2017 09:33:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 5.0000
 Sample Info: 180-0019317-022
 Misc. Info.: 180-72047-B-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: journey

Date: 16-Nov-2017 10:36:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.355	4.377	-0.022	0	259400	1000.0	
* 2 Fluorobenzene (IS)	96	7.348	7.352	-0.004	98	621015	50.0	
* 3 Chlorobenzene-d5	119	10.444	10.443	0.001	87	146539	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	97	195678	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.624	6.622	0.002	92	145019	48.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	7.001	6.993	0.008	0	206142	56.6	
\$ 7 Toluene-d8 (Surr)	98	8.996	8.995	0.001	94	579727	49.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.624	11.629	-0.005	83	191279	45.4	
12 Chloromethane	50		1.859				ND	
13 Vinyl chloride	62		1.974				ND	
15 Bromomethane	94		2.309				ND	
16 Chloroethane	64		2.418				ND	
22 1,1-Dichloroethene	96		3.416				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.225				ND	
33 Acrylonitrile	53		4.615				ND	
34 trans-1,2-Dichloroethene	96		4.645				ND	
35 Methyl tert-butyl ether	73		4.663				ND	
37 1,1-Dichloroethane	63		5.272				ND	
45 cis-1,2-Dichloroethene	96		6.020				ND	
46 2-Butanone (MEK)	43		6.038				ND	
49 Chlorobromomethane	128		6.300				ND	
52 Chloroform	83	6.447	6.446	0.001	38	2962	0.4924	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.774				ND	
58 Benzene	78		7.005				ND	
59 1,2-Dichloroethane	62		7.078				ND	
64 Trichloroethene	130	7.737	7.735	0.002	97	69698	18.3	
67 1,2-Dichloropropane	63		8.009				ND	
70 1,4-Dioxane	88		8.094				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.289				ND	
74 cis-1,3-Dichloropropene	75		8.733				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.891				ND	
76 Toluene	91		9.062				ND	
77 trans-1,3-Dichloropropene	75		9.311				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164	9.574	9.579	-0.005	93	106862	38.3	
82 2-Hexanone	43		9.719				ND	
84 Chlorodibromomethane	129		9.871				ND	
85 Ethylene Dibromide	107		9.986				ND	
87 Chlorobenzene	112		10.473				ND	
89 1,1,1,2-Tetrachloroethane	131		10.570				ND	
90 Ethylbenzene	106		10.576				ND	
91 m-Xylene & p-Xylene	106		10.704				ND	
92 o-Xylene	106		11.087				ND	
93 Styrene	104		11.106				ND	
94 Bromoform	173		11.288				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D22.D

Injection Date: 16-Nov-2017 09:33:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-B-2

Lab Sample ID: 180-72047-2

Worklist Smp#: 22

Client ID: HD-MW-184S-0/1-0

Purge Vol: 5.000 mL

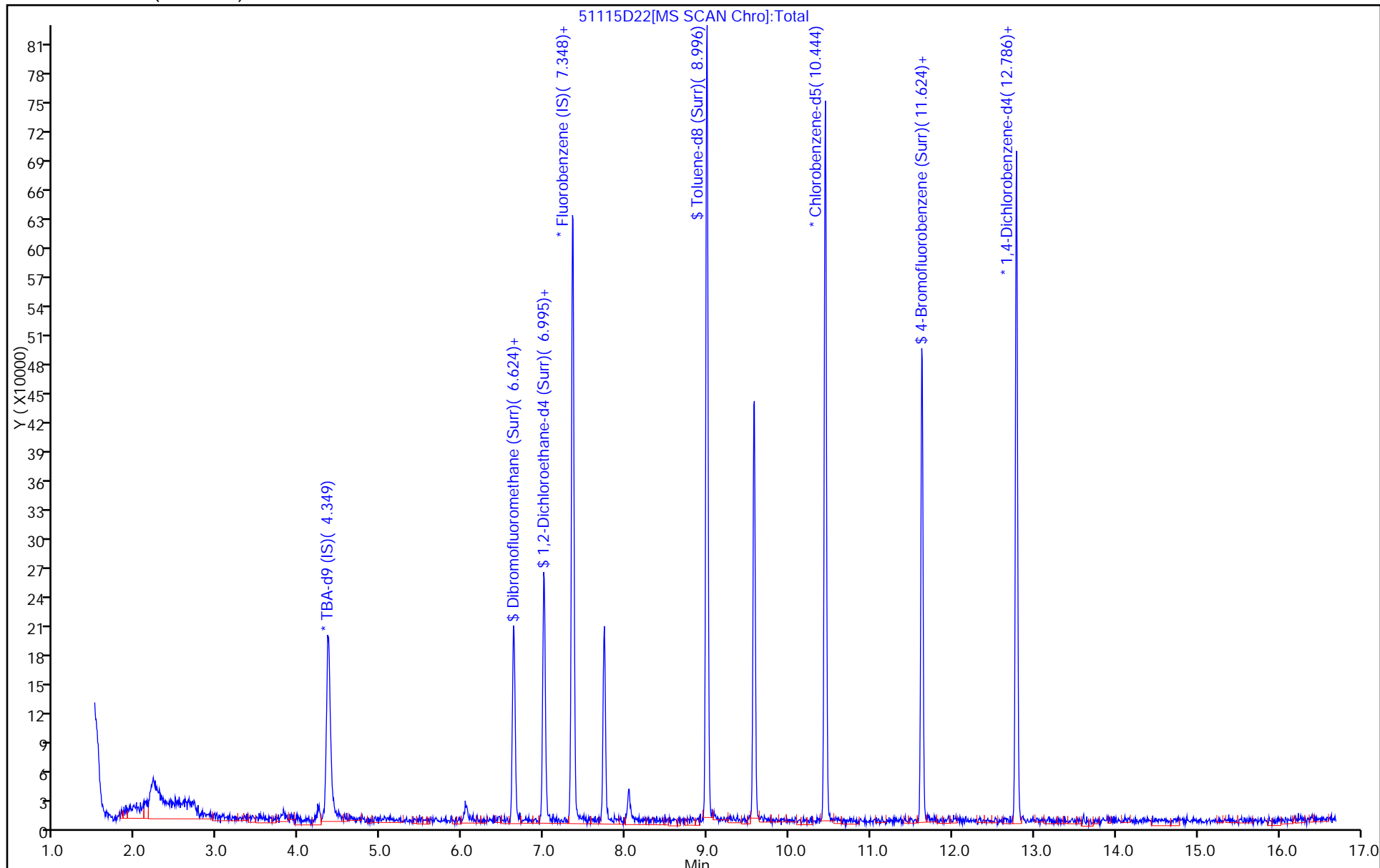
Dil. Factor: 5.0000

ALS Bottle#: 22

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D22.D
 Lims ID: 180-72047-B-2
 Client ID: HD-MW-184S-0/1-0
 Sample Type: Client
 Inject. Date: 16-Nov-2017 09:33:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 5.000 mL Dil. Factor: 5.0000
 Sample Info: 180-0019317-022
 Misc. Info.: 180-72047-B-2
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: journeyt

Date: 16-Nov-2017 10:36:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.5	97.07
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	56.6	113.13
\$ 7 Toluene-d8 (Surr)	50.0	49.7	99.42
\$ 8 4-Bromofluorobenzene (Surr)	50.0	45.4	90.82

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D22.D

Injection Date: 16-Nov-2017 09:33:30

Instrument ID: CHHP5

Lims ID: 180-72047-B-2

Lab Sample ID: 180-72047-2

Client ID: HD-MW-184S-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

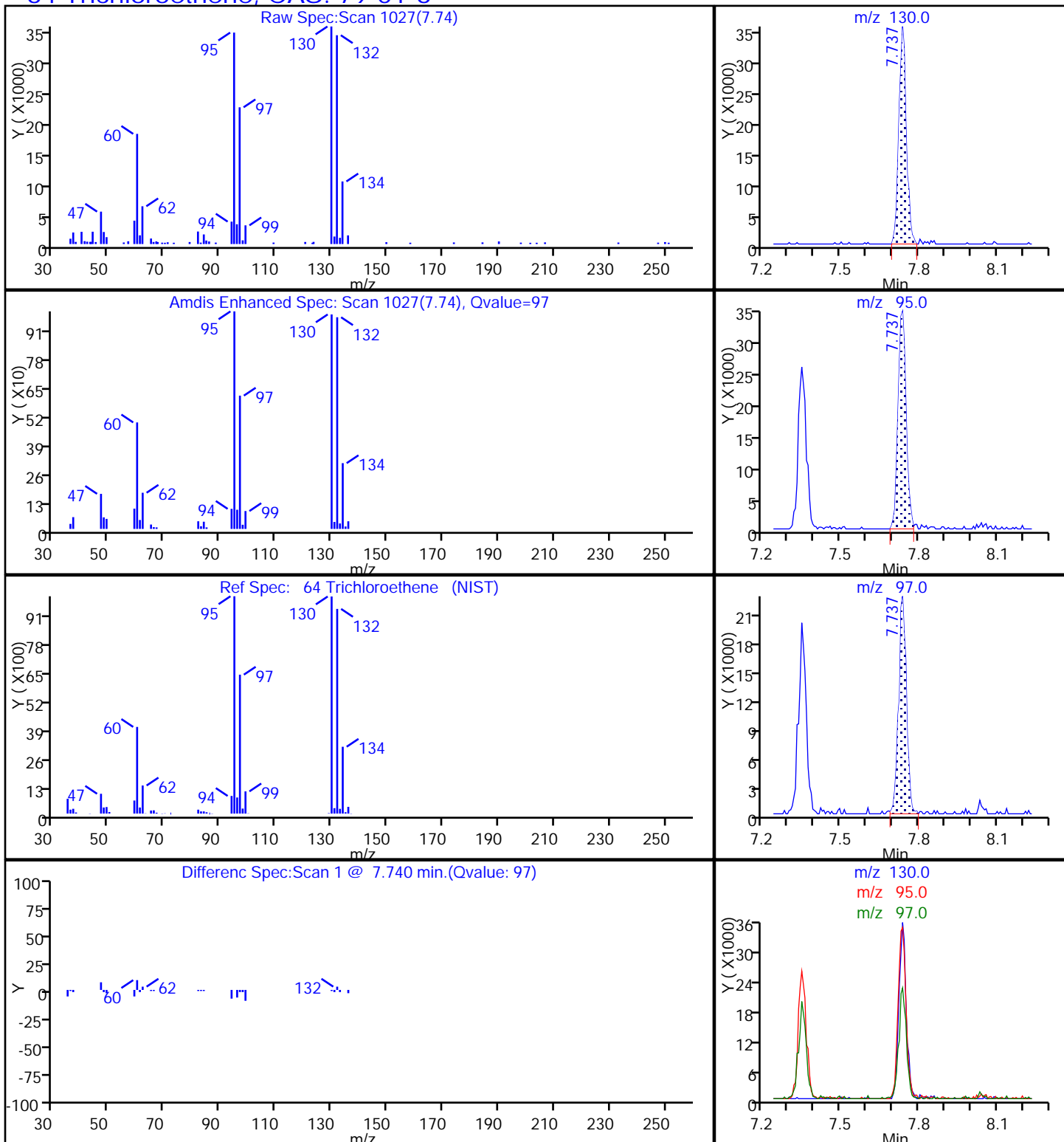
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D22.D

Injection Date: 16-Nov-2017 09:33:30

Instrument ID: CHHP5

Lims ID: 180-72047-B-2

Lab Sample ID: 180-72047-2

Client ID: HD-MW-184S-0/1-0

Operator ID: 034635

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 5.000 mL

Dil. Factor: 5.0000

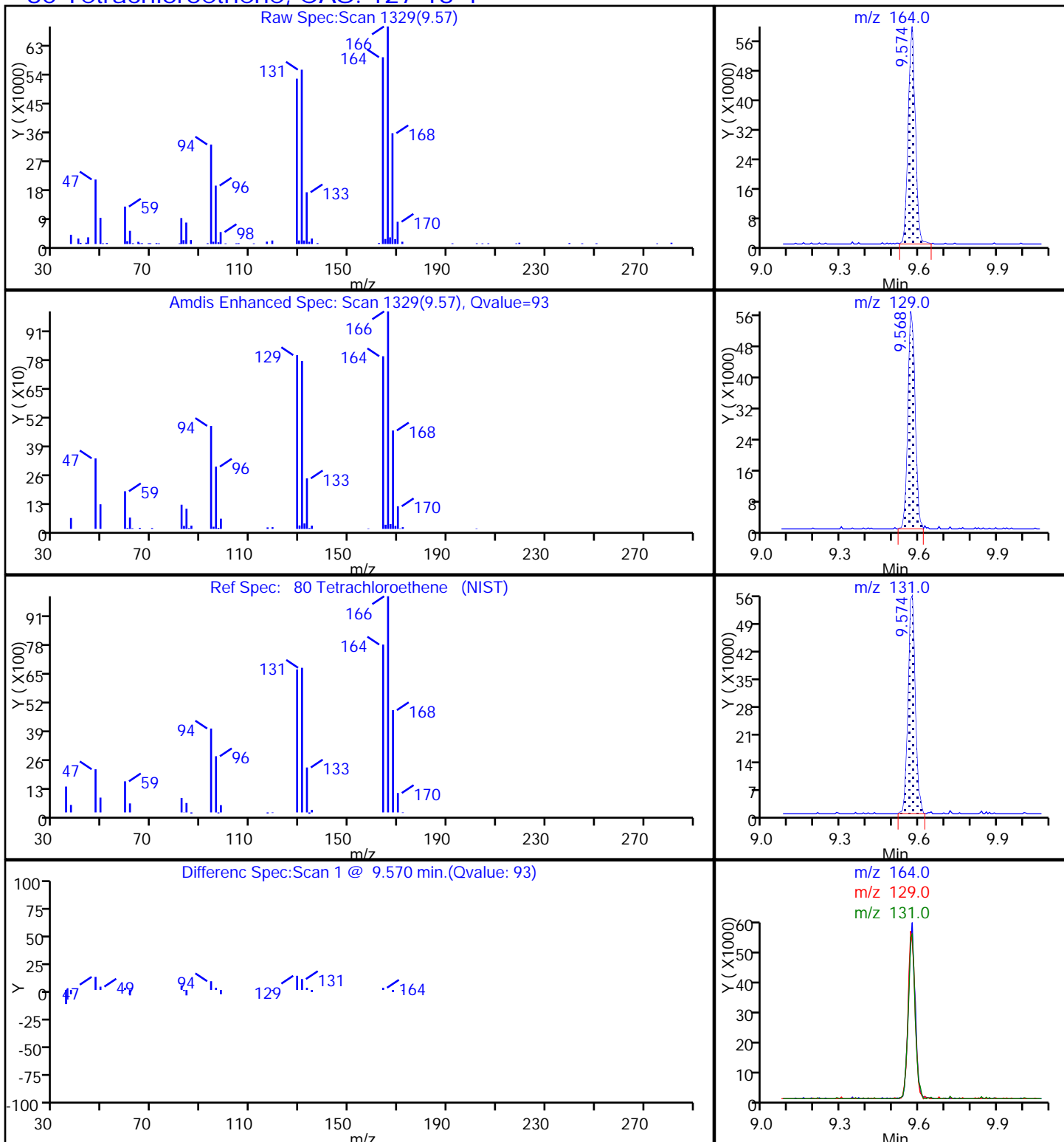
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-181D-0/1-0 DL Lab Sample ID: 180-72047-3 DL
 Matrix: Water Lab File ID: 51115D28.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 11:58
 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.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U H	1.0	0.90
75-01-4	Vinyl chloride	1.0	U H	1.0	0.88
74-83-9	Bromomethane	1.0	U H	1.0	0.89
75-00-3	Chloroethane	1.0	U H	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U H	1.0	0.55
67-64-1	Acetone	5.0	U H	5.0	3.4
75-15-0	Carbon disulfide	1.0	U H	1.0	0.88
75-09-2	Methylene Chloride	0.59	J H	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U H	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U H	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U H	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U H	1.0	0.71
74-97-5	Bromochloromethane	1.0	U H	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U H	5.0	2.6
67-66-3	Chloroform	1.0	U H	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U H	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U H	1.0	0.88
71-43-2	Benzene	1.0	U H	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U H	1.0	0.57
79-01-6	Trichloroethene	7.9	H ^c *	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U H	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U H	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U H	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U H	5.0	3.1
108-88-3	Toluene	1.0	U H	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U H	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U H	1.0	0.45
127-18-4	Tetrachloroethene	6.4	H *	1.0	0.47
591-78-6	2-Hexanone	5.0	U H	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U H	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U H	1.0	0.50
108-90-7	Chlorobenzene	1.0	U H	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U H	1.0	0.57
100-41-4	Ethylbenzene	1.0	U H	1.0	0.51

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-181D-0/1-0 DL Lab Sample ID: 180-72047-3 DL
 Matrix: Water Lab File ID: 51115D28.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 11:58
 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.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	<i>Xylenes, Total</i>	2.0	U H	2.0	0.89
100-42-5	<i>Styrene</i>	1.0	U H	1.0	0.47
75-25-2	<i>Bromoform</i>	1.0	U H	1.0	0.98
79-34-5	<i>1,1,2,2-Tetrachloroethane</i>	1.0	U H	1.0	0.60
107-13-1	<i>Acrylonitrile</i>	20	U H	20	7.8
123-91-1	<i>1,4-Dioxane</i>	200	U H	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		65-121
2037-26-5	Toluene-d8 (Surr)	97		73-120
460-00-4	4-Bromofluorobenzene (Surr)	86		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D28.D
 Lims ID: 180-72047-C-3
 Client ID: HD-MW-181D-0/1-0
 Sample Type: Client
 Inject. Date: 16-Nov-2017 11:58:30 ALS Bottle#: 28 Worklist Smp#: 28
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-028
 Misc. Info.: 180-72047-C-3
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 13:23:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.352	4.377	-0.025	0	229952	1000.0	
* 2 Fluorobenzene (IS)	96	7.351	7.352	-0.001	98	536633	50.0	
* 3 Chlorobenzene-d5	119	10.442	10.443	-0.001	88	134688	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.784	12.785	-0.001	97	182329	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.628	6.622	0.006	92	129729	50.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.999	6.993	0.006	0	184593	58.6	
\$ 7 Toluene-d8 (Surr)	98	8.994	8.995	-0.001	94	518464	48.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.628	11.629	-0.001	83	165978	42.9	
12 Chloromethane	50		1.859				ND	
13 Vinyl chloride	62		1.974				ND	
15 Bromomethane	94		2.309				ND	
16 Chloroethane	64		2.418				ND	
22 1,1-Dichloroethene	96		3.416				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84	4.237	4.225	0.012	96	19155	2.93	
33 Acrylonitrile	53		4.615				ND	
34 trans-1,2-Dichloroethene	96		4.645				ND	
35 Methyl tert-butyl ether	73		4.663				ND	
37 1,1-Dichloroethane	63		5.272				ND	
45 cis-1,2-Dichloroethene	96		6.020				ND	
46 2-Butanone (MEK)	43		6.038				ND	
49 Chlorobromomethane	128		6.300				ND	
52 Chloroform	83	6.457	6.446	0.011	1	1822	0.3505	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.774				ND	
58 Benzene	78		7.005				ND	
59 1,2-Dichloroethane	62		7.078				ND	
64 Trichloroethene	130	7.735	7.735	0.000	97	128988	39.3	
67 1,2-Dichloropropane	63		8.009				ND	
70 1,4-Dioxane	88		8.094				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.289				ND	
74 cis-1,3-Dichloropropene	75		8.733				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.891				ND	
76 Toluene	91		9.062				ND	
77 trans-1,3-Dichloropropene	75		9.311				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164	9.572	9.579	-0.007	93	81922	32.0	
82 2-Hexanone	43		9.719				ND	
84 Chlorodibromomethane	129		9.871				ND	
85 Ethylene Dibromide	107		9.986				ND	
87 Chlorobenzene	112		10.473				ND	
89 1,1,1,2-Tetrachloroethane	131		10.570				ND	
90 Ethylbenzene	106		10.576				ND	
91 m-Xylene & p-Xylene	106		10.704				ND	
92 o-Xylene	106		11.087				ND	
93 Styrene	104		11.106				ND	
94 Bromoform	173		11.288				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D28.D

Injection Date: 16-Nov-2017 11:58:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-C-3

Lab Sample ID: 180-72047-3

Worklist Smp#: 28

Client ID: HD-MW-181D-0/1-0

Purge Vol: 5.000 mL

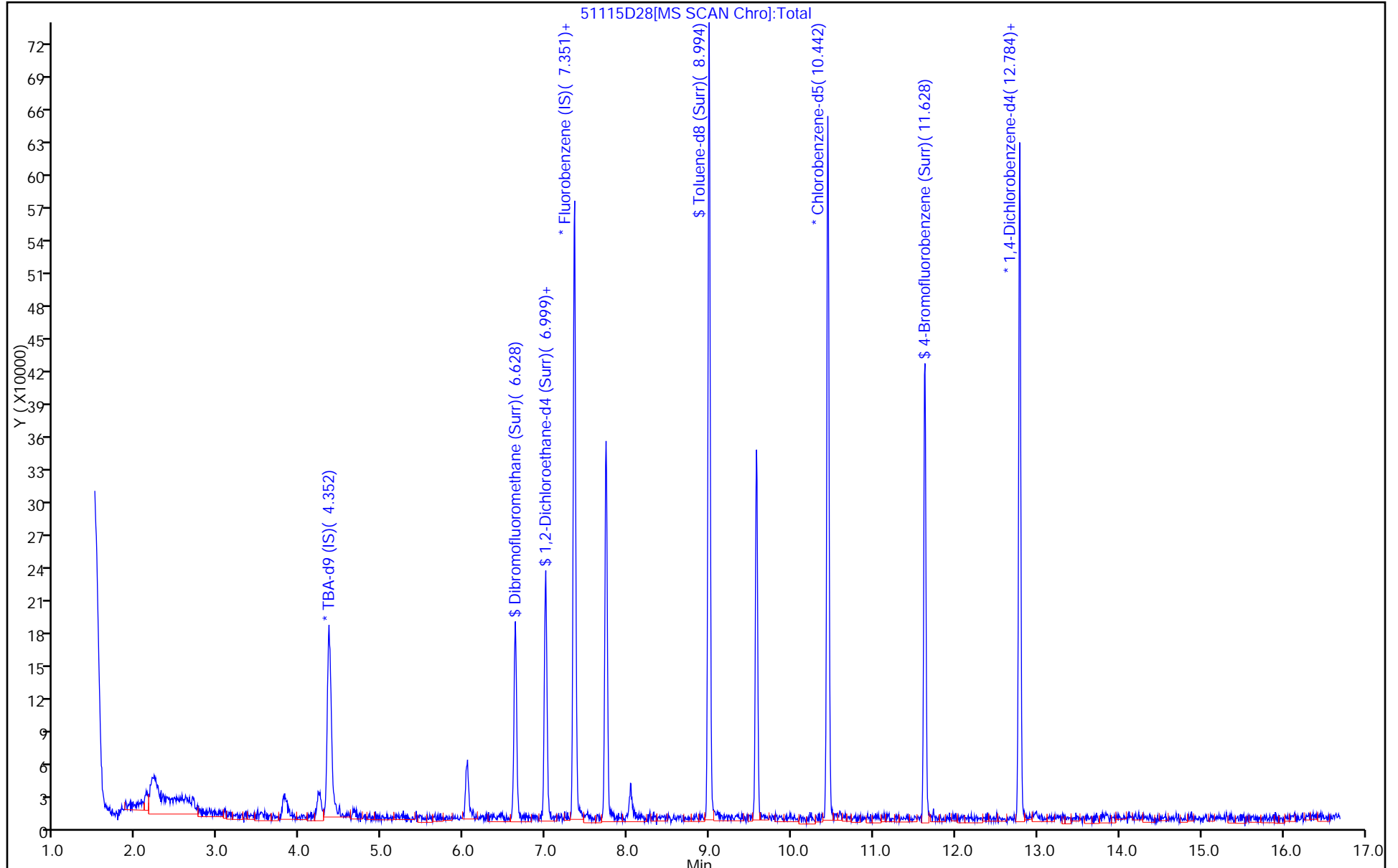
Dil. Factor: 1.0000

ALS Bottle#: 28

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D28.D
 Lims ID: 180-72047-C-3
 Client ID: HD-MW-181D-0/1-0
 Sample Type: Client
 Inject. Date: 16-Nov-2017 11:58:30 ALS Bottle#: 28 Worklist Smp#: 28
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-028
 Misc. Info.: 180-72047-C-3
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 13:23:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	50.2	100.49
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	58.6	117.23
\$ 7 Toluene-d8 (Surr)	50.0	48.4	96.73
\$ 8 4-Bromofluorobenzene (Surr)	50.0	42.9	85.74

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D28.D

Injection Date: 16-Nov-2017 11:58:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-3

Lab Sample ID: 180-72047-3

Client ID: HD-MW-181D-0/1-0

Operator ID: 034635

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

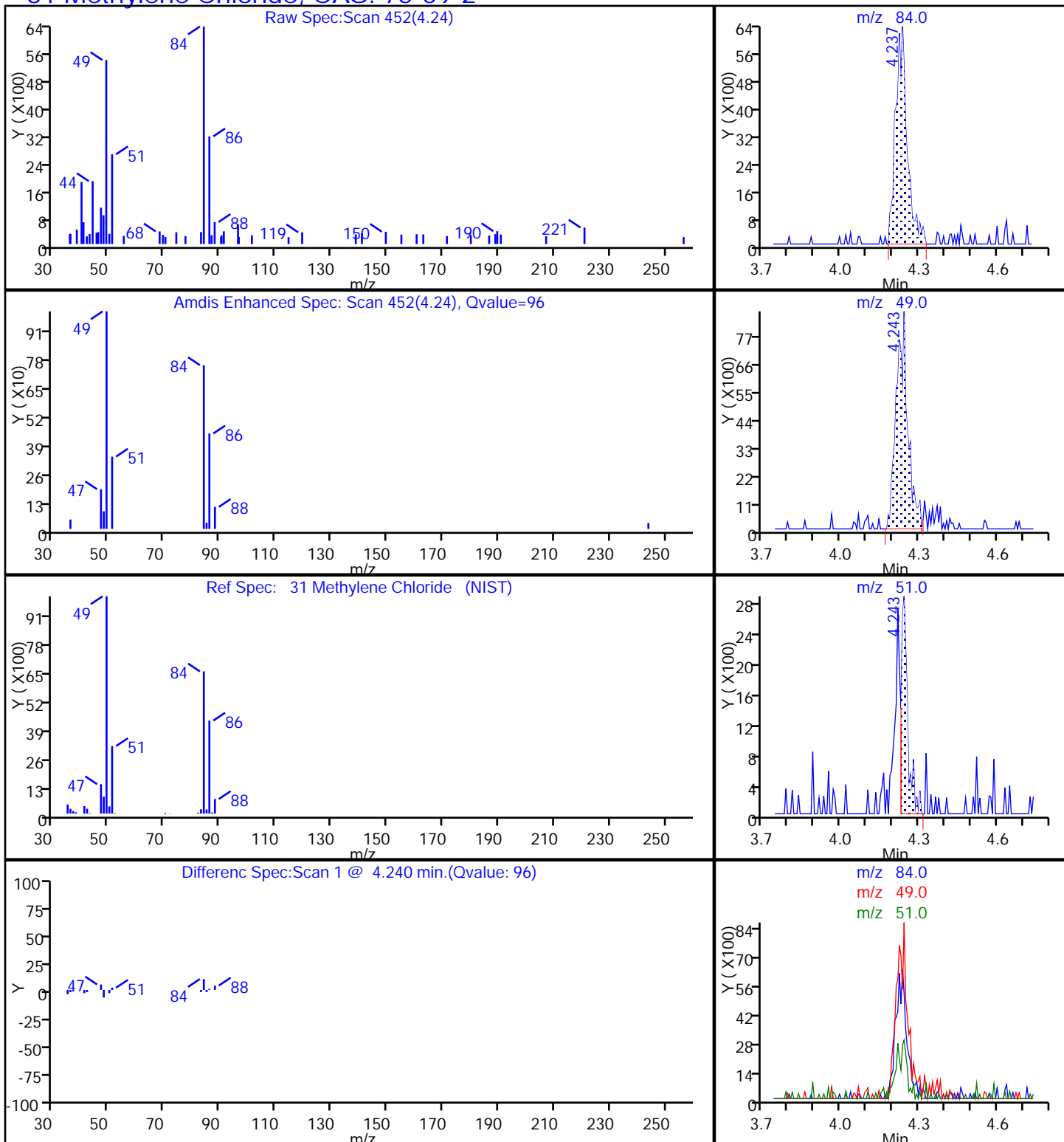
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D28.D

Injection Date: 16-Nov-2017 11:58:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-3

Lab Sample ID: 180-72047-3

Client ID: HD-MW-181D-0/1-0

Operator ID: 034635

ALS Bottle#: 28

Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

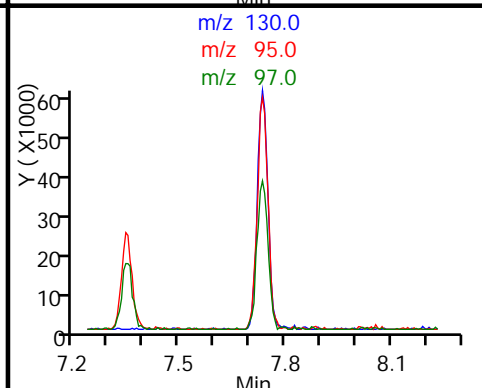
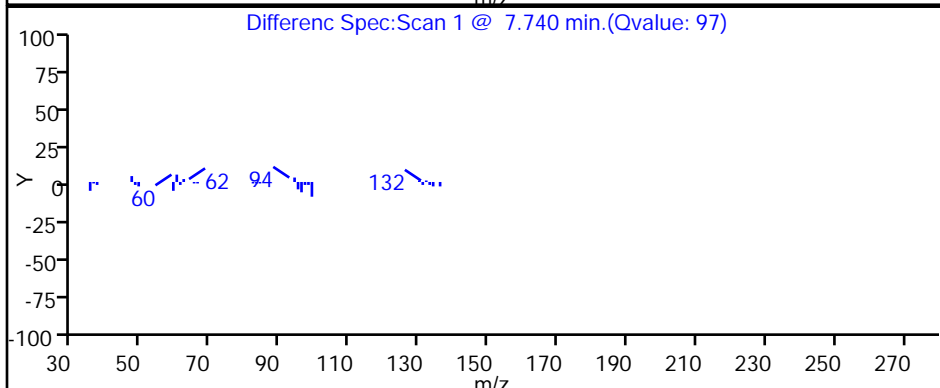
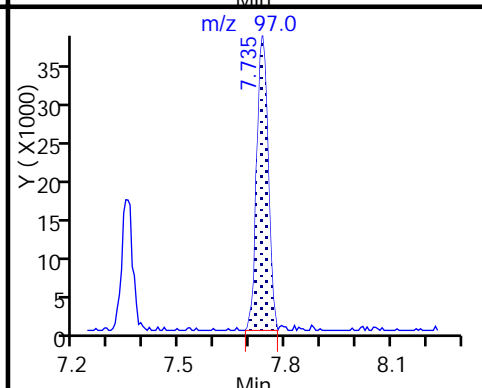
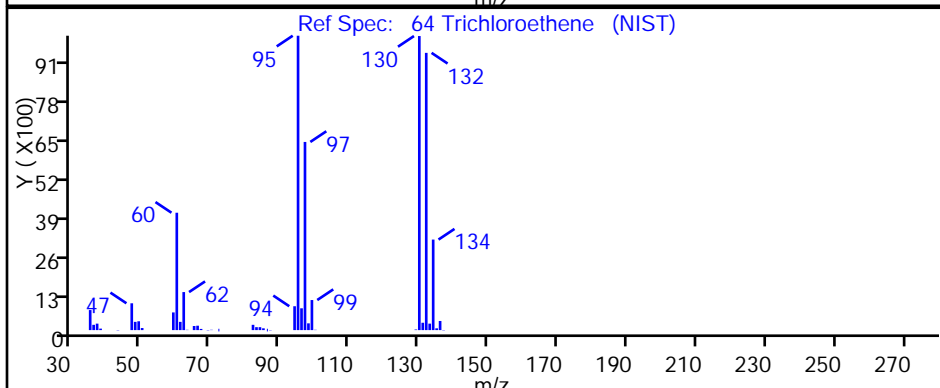
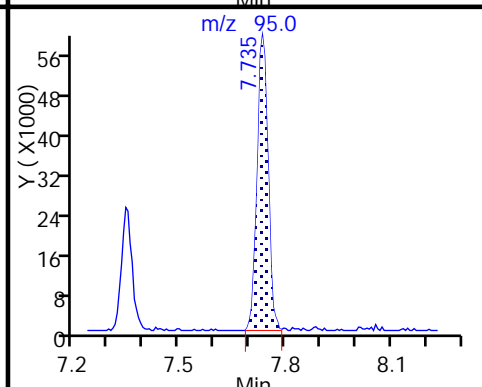
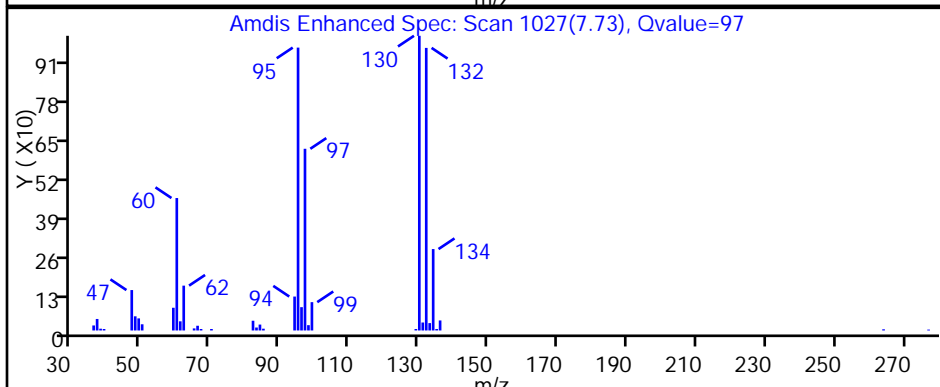
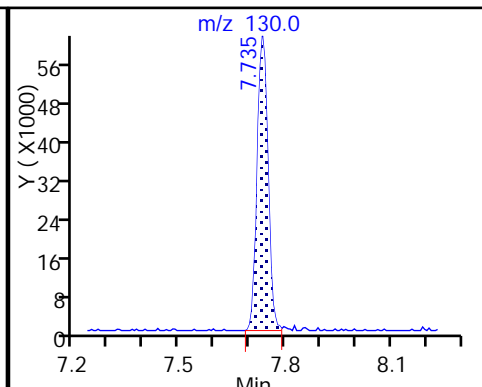
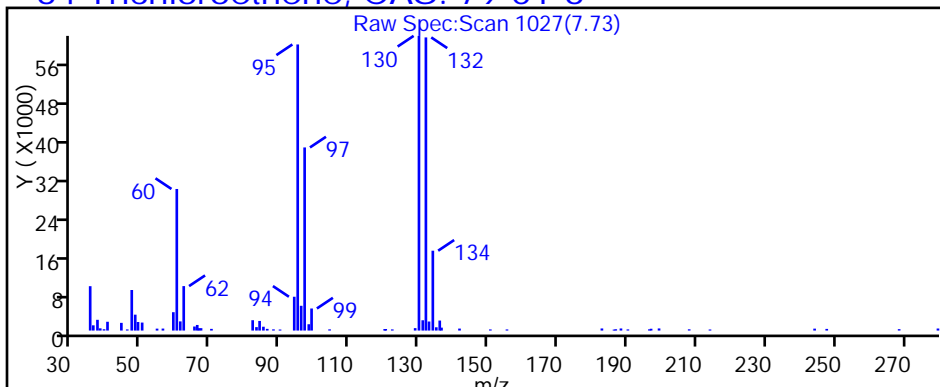
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D28.D

Injection Date: 16-Nov-2017 11:58:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-3

Lab Sample ID: 180-72047-3

Client ID: HD-MW-181D-0/1-0

Operator ID: 034635

ALS Bottle#: 28 Worklist Smp#: 28

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

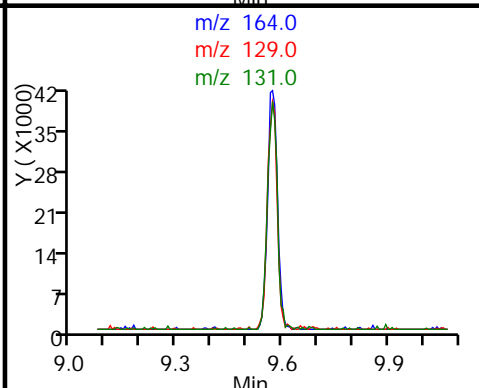
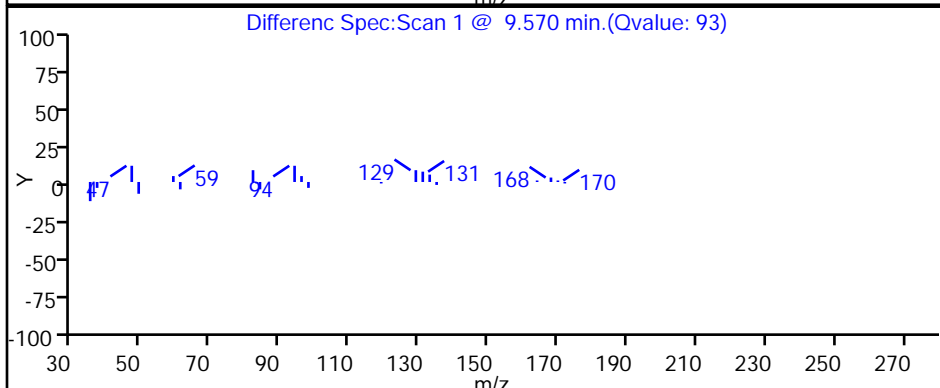
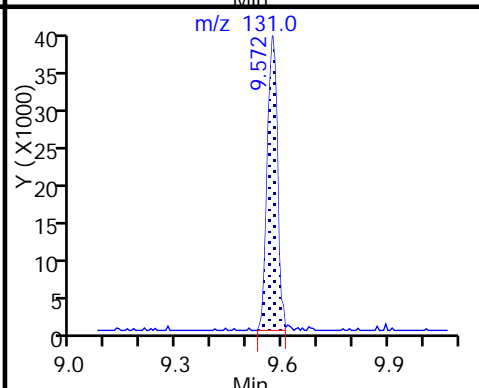
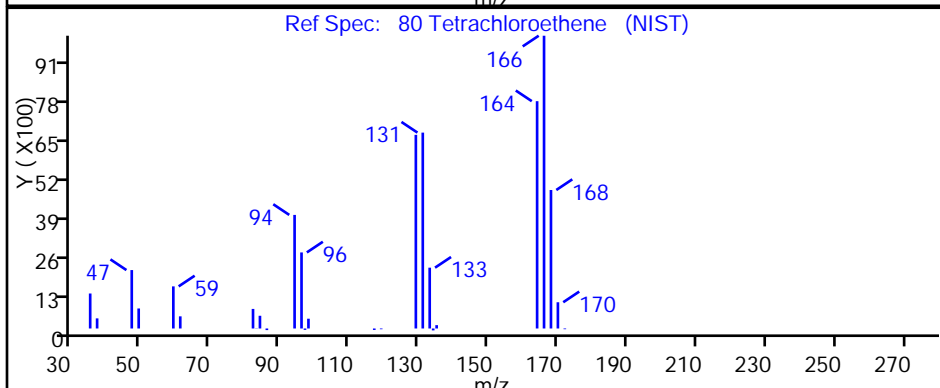
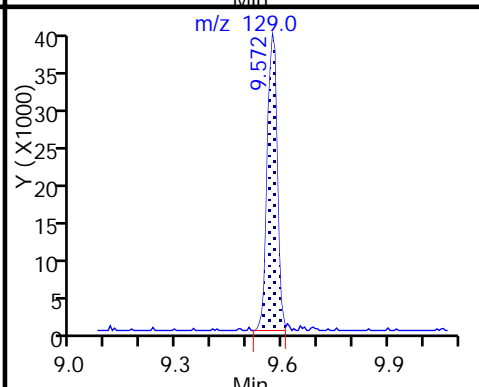
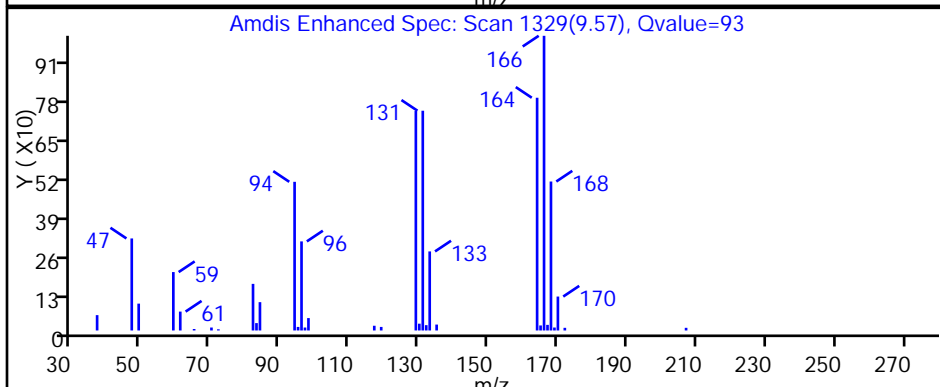
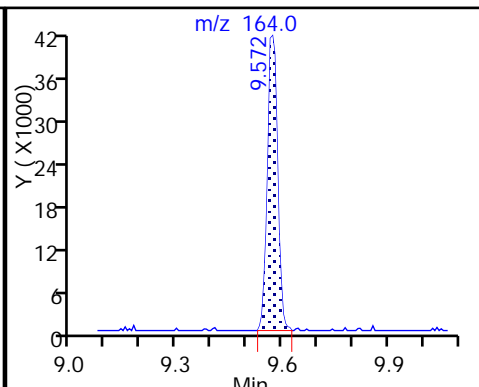
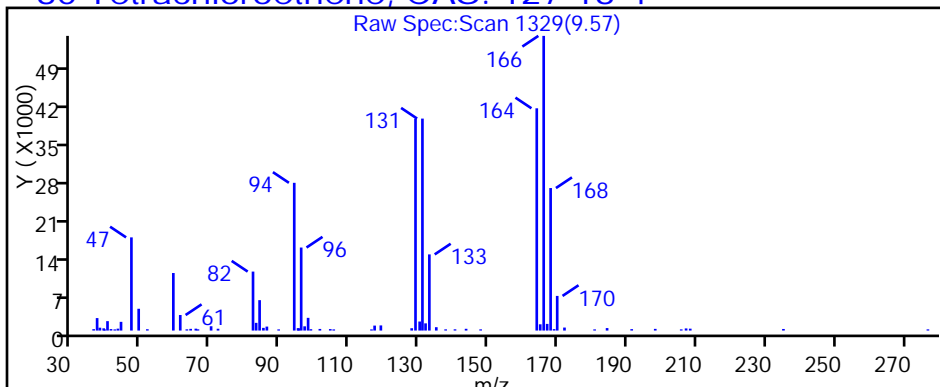
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-181D-0/1-0 Lab Sample ID: 180-72047-3
 Matrix: Water Lab File ID: 51113D23.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 09:01
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U ^c	10	9.0
75-01-4	Vinyl chloride	10	U	10	8.8
74-83-9	Bromomethane	10	U ^c	10	8.9
75-00-3	Chloroethane	10	U ^c	10	9.0
75-35-4	1,1-Dichloroethene	10	U	10	5.5
67-64-1	Acetone	50	U	50	34
75-15-0	Carbon disulfide	10	U	10	8.8
75-09-2	Methylene Chloride	10	U	10	3.6
156-60-5	trans-1,2-Dichloroethene	10	U	10	6.7
1634-04-4	Methyl tert-butyl ether	10	U	10	5.9
75-34-3	1,1-Dichloroethane	10	U	10	6.3
156-59-2	cis-1,2-Dichloroethene	10	U	10	7.1
74-97-5	Bromochloromethane	10	U	10	6.3
78-93-3	2-Butanone (MEK)	50	U	50	26
67-66-3	Chloroform	10	U	10	6.0
71-55-6	1,1,1-Trichloroethane	10	U	10	6.0
56-23-5	Carbon tetrachloride	10	U	10	8.8
71-43-2	Benzene	10	U	10	6.0
107-06-2	1,2-Dichloroethane	10	U	10	5.7
79-01-6	Trichloroethene	45		10	6.9
78-87-5	1,2-Dichloropropane	10	U	10	6.6
75-27-4	Bromodichloromethane	10	U	10	6.4
10061-01-5	cis-1,3-Dichloropropene	10	U	10	5.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	31
108-88-3	Toluene	10	U	10	4.6
10061-02-6	trans-1,3-Dichloropropene	10	U	10	5.8
79-00-5	1,1,2-Trichloroethane	10	U	10	4.5
127-18-4	Tetrachloroethene	91		10	4.7
591-78-6	2-Hexanone	50	U	50	33
124-48-1	Dibromochloromethane	10	U	10	8.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	5.0
108-90-7	Chlorobenzene	10	U	10	5.0
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	5.7
100-41-4	Ethylbenzene	10	U	10	5.1
1330-20-7	Xylenes, Total	20	U	20	8.9
100-42-5	Styrene	10	U	10	4.7

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-181D-0/1-0 Lab Sample ID: 180-72047-3
 Matrix: Water Lab File ID: 51113D23.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 09:01
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	9.8
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	6.0
107-13-1	Acrylonitrile	200	U	200	78
123-91-1	1,4-Dioxane	2000	U	2000	140

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		65-121
2037-26-5	Toluene-d8 (Surr)	92		73-120
460-00-4	4-Bromofluorobenzene (Surr)	76	X	80-120
1868-53-7	Dibromofluoromethane (Surr)	114		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D23.D
 Lims ID: 180-72047-A-3
 Client ID: HD-MW-181D-0/1-0
 Sample Type: Client
 Inject. Date: 14-Nov-2017 09:01:30 ALS Bottle#: 23 Worklist Smp#: 23
 Purge Vol: 5.000 mL Dil. Factor: 10.0000
 Sample Info: 180-0019287-023
 Misc. Info.: 180-72047-A-3
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:21:32 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 13:21:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.364	4.366	-0.002	0	225005	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.340	0.004	98	496768	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.429	0.004	87	123169	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.771	0.004	97	146147	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.614	0.006	93	136307	57.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.984	0.007	0	173851	59.6	
\$ 7 Toluene-d8 (Surr)	98	8.986	8.985	0.001	94	448738	45.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.612	0.001	82	134578	38.0	
12 Chloromethane	50		1.894				ND	
13 Vinyl chloride	62		2.010				ND	
15 Bromomethane	94		2.338				ND	
16 Chloroethane	64		2.448				ND	
22 1,1-Dichloroethene	96		3.415				ND	
24 Acetone	43		3.530				ND	
26 Carbon disulfide	76		3.701				ND	
31 Methylene Chloride	84		4.224				ND	
33 Acrylonitrile	53		4.613				ND	
34 trans-1,2-Dichloroethene	96		4.643				ND	
35 Methyl tert-butyl ether	73		4.661				ND	
37 1,1-Dichloroethane	63		5.270				ND	
45 cis-1,2-Dichloroethene	96		6.011				ND	
46 2-Butanone (MEK)	43		6.030				ND	
49 Chlorobromomethane	128		6.297				ND	
52 Chloroform	83		6.443				ND	
53 1,1,1-Trichloroethane	97		6.595				ND	
56 Carbon tetrachloride	117		6.766				ND	
58 Benzene	78		6.997				ND	
59 1,2-Dichloroethane	62		7.076				ND	
64 Trichloroethene	130	7.727	7.726	0.001	98	68144	22.4	
67 1,2-Dichloropropane	63		8.000				ND	
70 1,4-Dioxane	88		8.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.280				ND	
74 cis-1,3-Dichloropropene	75		8.718				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.876				ND	
76 Toluene	91		9.052				ND	
77 trans-1,3-Dichloropropene	75		9.301				ND	
79 1,1,2-Trichloroethane	97		9.490				ND	
80 Tetrachloroethene	164	9.558	9.563	-0.005	92	106835	45.6	
82 2-Hexanone	43		9.709				ND	
84 Chlorodibromomethane	129		9.861				ND	
85 Ethylene Dibromide	107		9.977				ND	
87 Chlorobenzene	112		10.457				ND	
89 1,1,1,2-Tetrachloroethane	131		10.548				ND	
90 Ethylbenzene	106		10.560				ND	
91 m-Xylene & p-Xylene	106		10.688				ND	
92 o-Xylene	106		11.071				ND	
93 Styrene	104		11.095				ND	
94 Bromoform	173		11.272				ND	
99 1,1,2,2-Tetrachloroethane	83		11.752				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D23.D

Injection Date: 14-Nov-2017 09:01:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-A-3

Lab Sample ID: 180-72047-3

Worklist Smp#: 23

Client ID: HD-MW-181D-0/1-0

Purge Vol: 5.000 mL

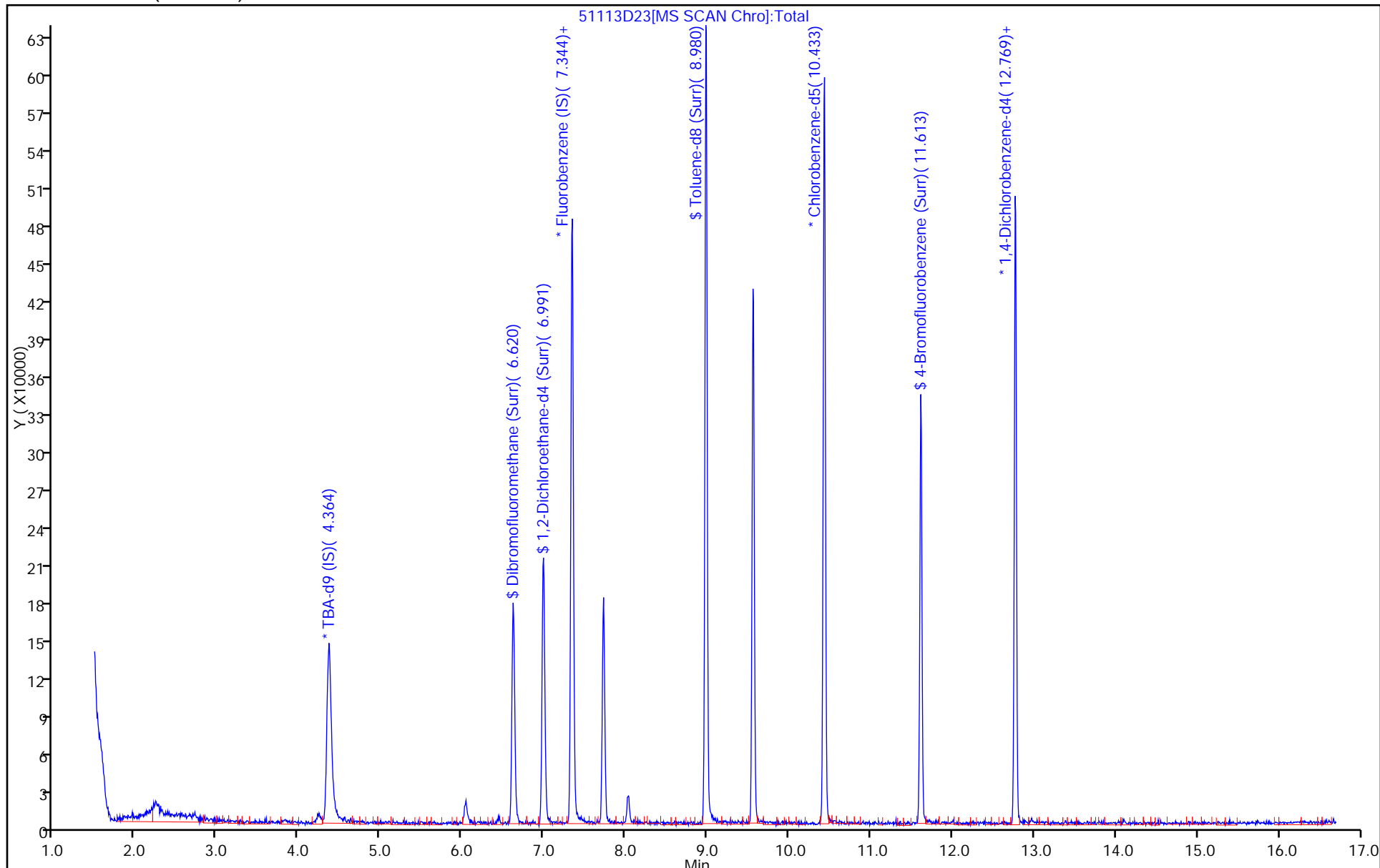
Dil. Factor: 10.0000

ALS Bottle#: 23

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D23.D
 Lims ID: 180-72047-A-3
 Client ID: HD-MW-181D-0/1-0
 Sample Type: Client
 Inject. Date: 14-Nov-2017 09:01:30 ALS Bottle#: 23 Worklist Smp#: 23
 Purge Vol: 5.000 mL Dil. Factor: 10.0000
 Sample Info: 180-0019287-023
 Misc. Info.: 180-72047-A-3
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:21:32 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 13:21:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	57.0	114.05
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	59.6	119.27
\$ 7 Toluene-d8 (Surr)	50.0	45.8	91.55
\$ 8 4-Bromofluorobenzene (Surr)	50.0	38.0	76.02

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D23.D

Injection Date: 14-Nov-2017 09:01:30

Instrument ID: CHHP5

Lims ID: 180-72047-A-3

Lab Sample ID: 180-72047-3

Client ID: HD-MW-181D-0/1-0

Operator ID: 034635

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

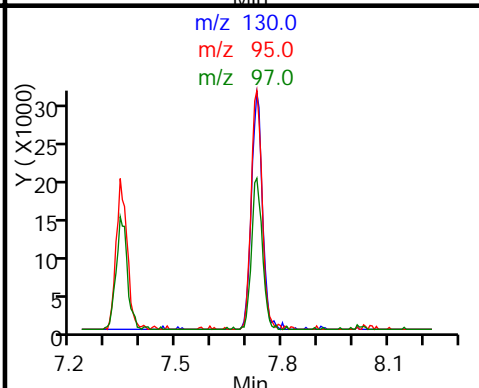
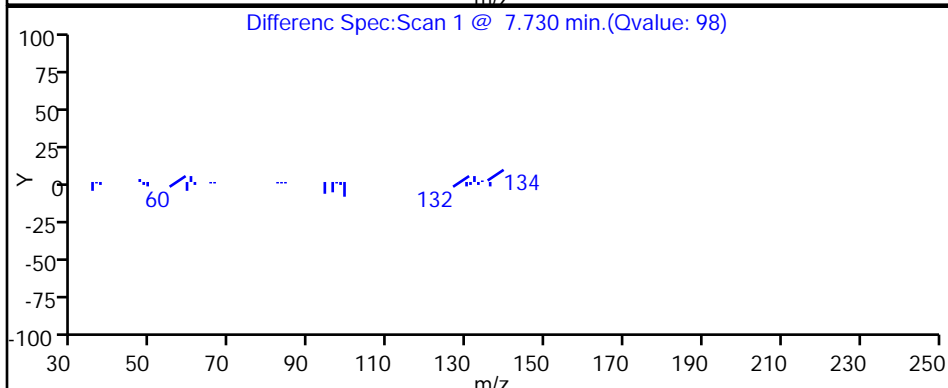
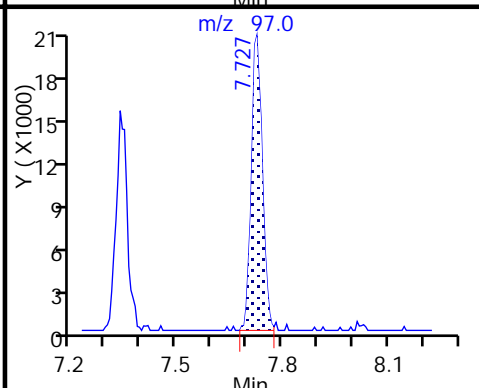
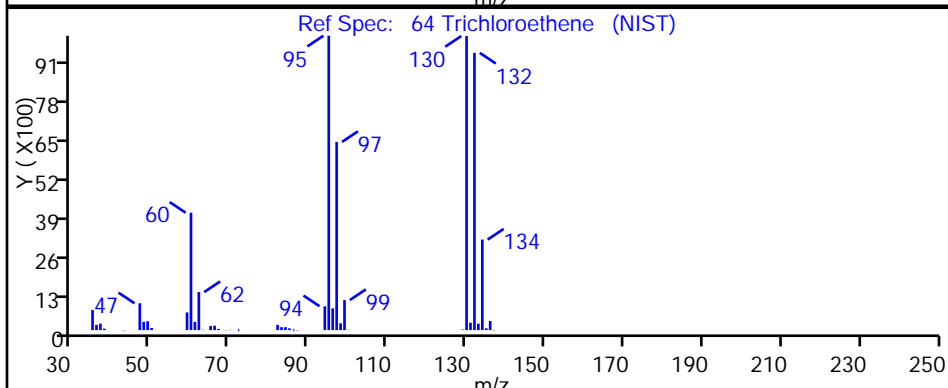
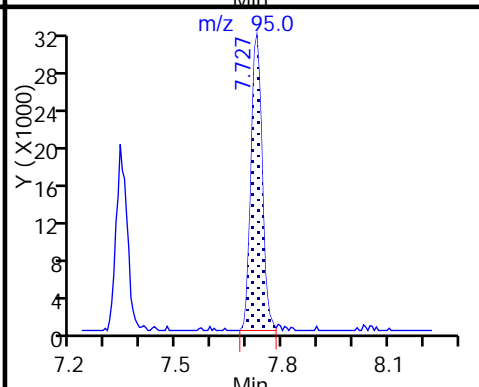
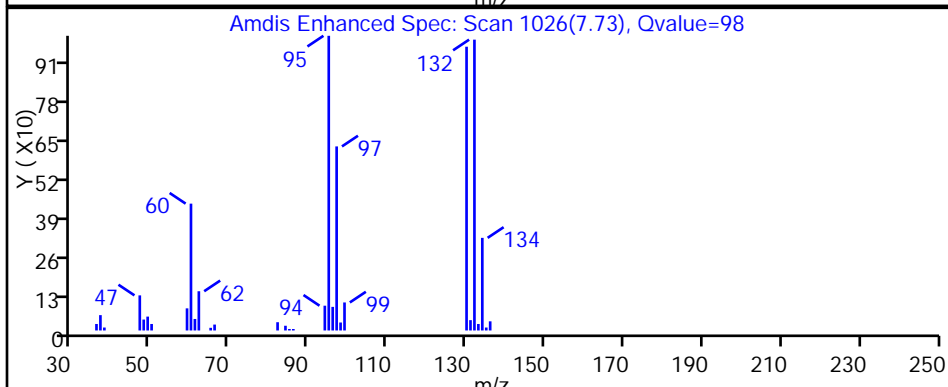
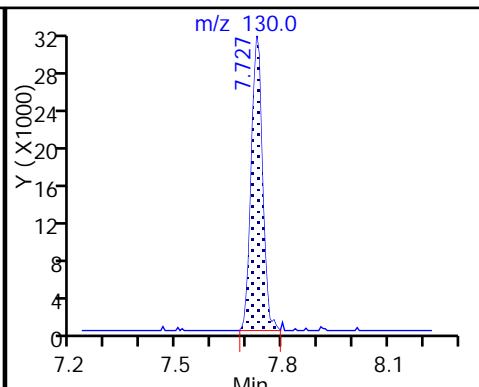
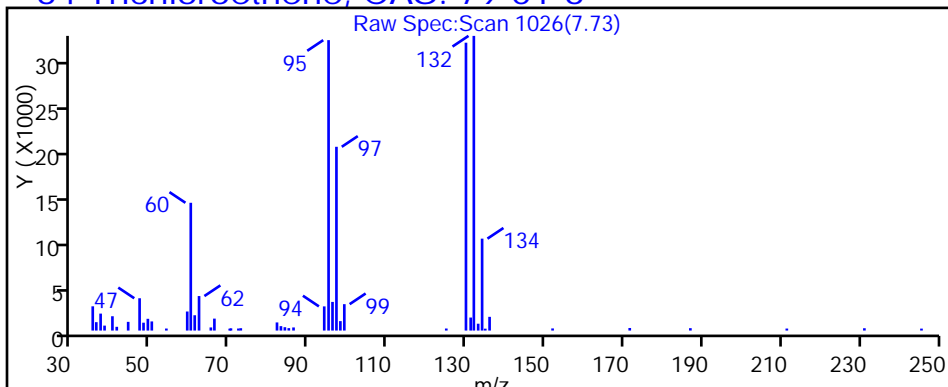
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D23.D

Injection Date: 14-Nov-2017 09:01:30

Instrument ID: CHHP5

Lims ID: 180-72047-A-3

Lab Sample ID: 180-72047-3

Client ID: HD-MW-181D-0/1-0

Operator ID: 034635

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 5.000 mL

Dil. Factor: 10.0000

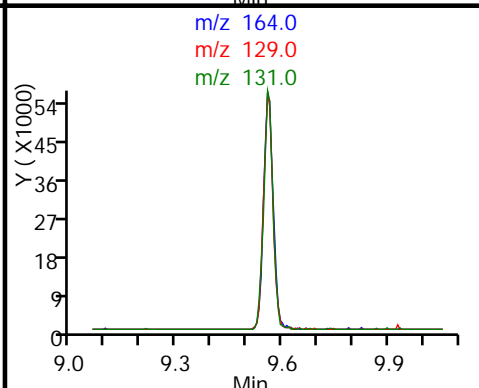
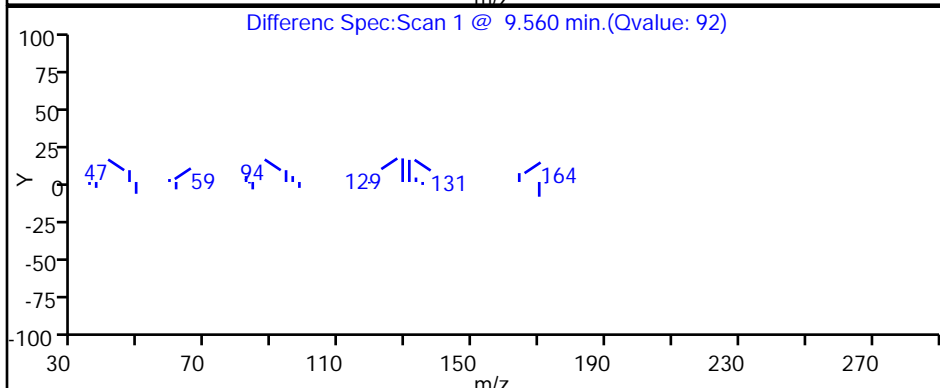
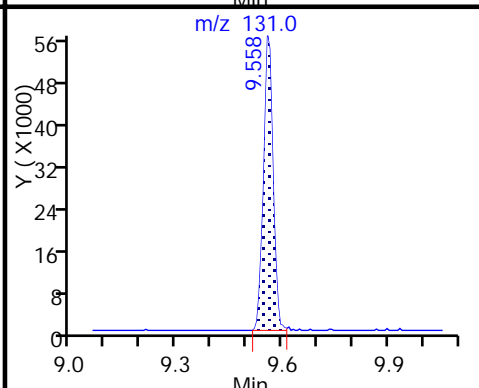
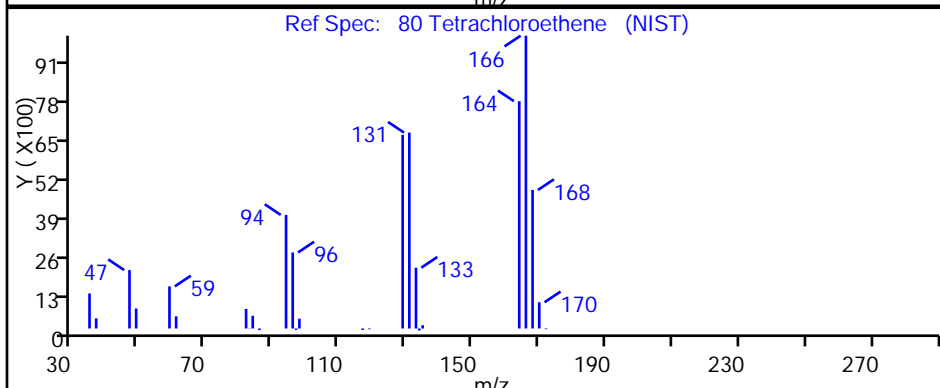
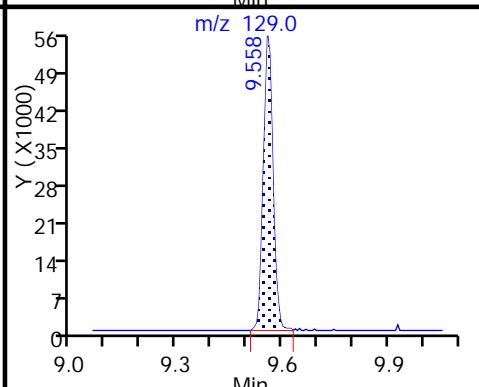
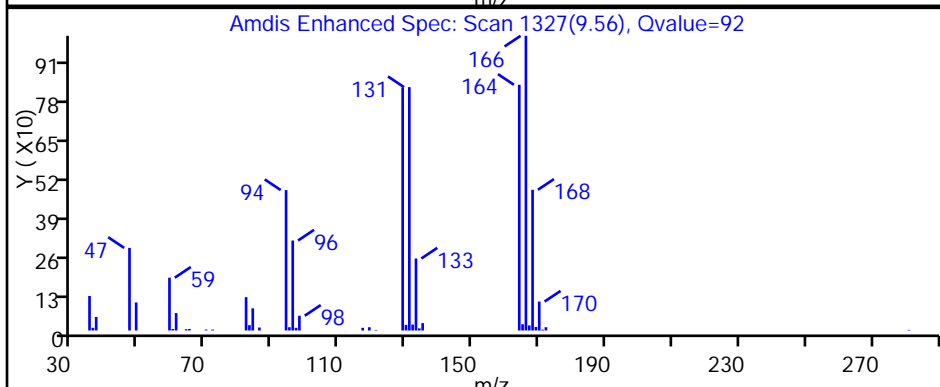
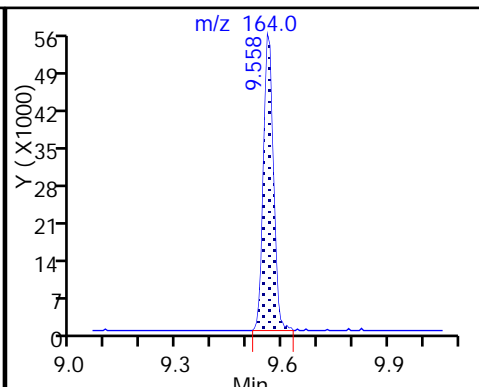
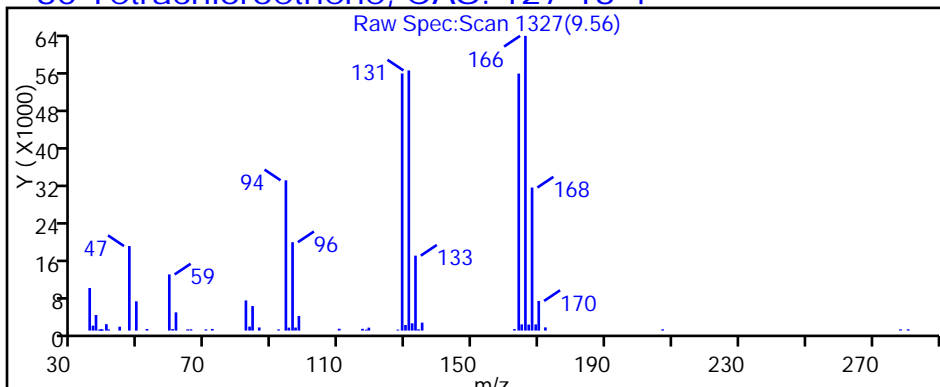
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-136A-459.5/460.0 Lab Sample ID: 180-72047-4
 Matrix: Water Lab File ID: 51112D18.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:10
 Sample wt/vol: 5 (mL) Date Analyzed: 11/13/2017 00:07
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U *	1.0	0.90
75-01-4	Vinyl chloride	18		1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.1		1.0	0.90
75-35-4	1,1-Dichloroethene	4.8		1.0	0.55
67-64-1	Acetone	14	^c	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	6.8		1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	5.8		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	930	E	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U ^c	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.2		1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	620	E ^c	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	0.49	J	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	28		1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-136A-459.5/460.0 Lab Sample ID: 180-72047-4
 Matrix: Water Lab File ID: 51112D18.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:10
 Sample wt/vol: 5 (mL) Date Analyzed: 11/13/2017 00:07
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	77	*	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		65-121
2037-26-5	Toluene-d8 (Surr)	97		73-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D
 Lims ID: 180-72047-C-4
 Client ID: HD-MW-136A-459.5/460.0
 Sample Type: Client
 Inject. Date: 13-Nov-2017 00:07:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-018
 Misc. Info.: 180-72047-C-4
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 10:44:51 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICAL File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf Date: 13-Nov-2017 20:49:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.358	4.369	-0.011	0	228851	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.343	0.001	98	577462	50.0	
* 3 Chlorobenzene-d5	119	10.427	10.432	-0.005	87	123603	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.774	0.001	97	187306	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.623	-0.003	92	145964	52.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.988	0.003	0	180730	53.3	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.983	-0.003	94	478338	48.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.616	-0.003	83	176620	49.7	
12 Chloromethane	50	1.962	1.886	0.076	30	10241	3.03	
13 Vinyl chloride	62	2.029	2.014	0.015	99	316136	92.3	
15 Bromomethane	94		2.366				ND	
16 Chloroethane	64	2.473	2.458	0.015	78	10322	5.48	
22 1,1-Dichloroethene	96	3.440	3.425	0.015	97	67631	23.9	
24 Acetone	43	3.537	3.540	-0.003	98	106292	70.4	
26 Carbon disulfide	76	3.720	3.704	0.016	91	24791	4.00	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53	4.620	4.617	0.003	100	562155	386.6	
34 trans-1,2-Dichloroethene	96	4.656	4.647	0.009	98	109965	34.1	
35 Methyl tert-butyl ether	73	4.668	4.659	0.009	36	185	0.0214	
37 1,1-Dichloroethane	63	5.282	5.267	0.015	97	162397	29.0	
45 cis-1,2-Dichloroethene	96	6.018	6.009	0.009	72	17153955	4655.9	E
46 2-Butanone (MEK)	43		6.027				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.444	6.441	0.003	92	13573	2.43	
53 1,1,1-Trichloroethane	97	6.608	6.593	0.015	80	25491	6.02	
56 Carbon tetrachloride	117	6.590	6.769	-0.179	39	2890	0.8203	
58 Benzene	78	7.004	7.000	0.004	51	28971	2.06	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130	7.733	7.724	0.009	82	10948704	3098.6	E
67 1,2-Dichloropropane	63	7.995	7.998	-0.003	1	575	0.1759	
70 1,4-Dioxane	88		8.077				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.278				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43	8.883	8.880	0.003	90	7466	2.35	
76 Toluene	91	9.053	9.050	0.003	98	29914	2.43	
77 trans-1,3-Dichloropropene	75		9.299				ND	
79 1,1,2-Trichloroethane	97	9.485	9.488	-0.003	1	958	0.3731	
80 Tetrachloroethene	164	9.564	9.561	0.003	95	324729	138.2	
82 2-Hexanone	43	9.704	9.707	-0.003	97	13636	5.61	
84 Chlorodibromomethane	129		9.859				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112	10.464	10.461	0.003	1	1708	0.2129	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106	10.561	10.558	0.003	1	326	0.0728	
91 m-Xylene & p-Xylene	106		10.692				ND	
92 o-Xylene	106	11.072	11.075	-0.003	20	1155	0.2215	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.276				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106				0		0.2215	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Worklist Smp#: 18

Client ID: HD-MW-136A-459.5/460.0

Purge Vol: 5.000 mL

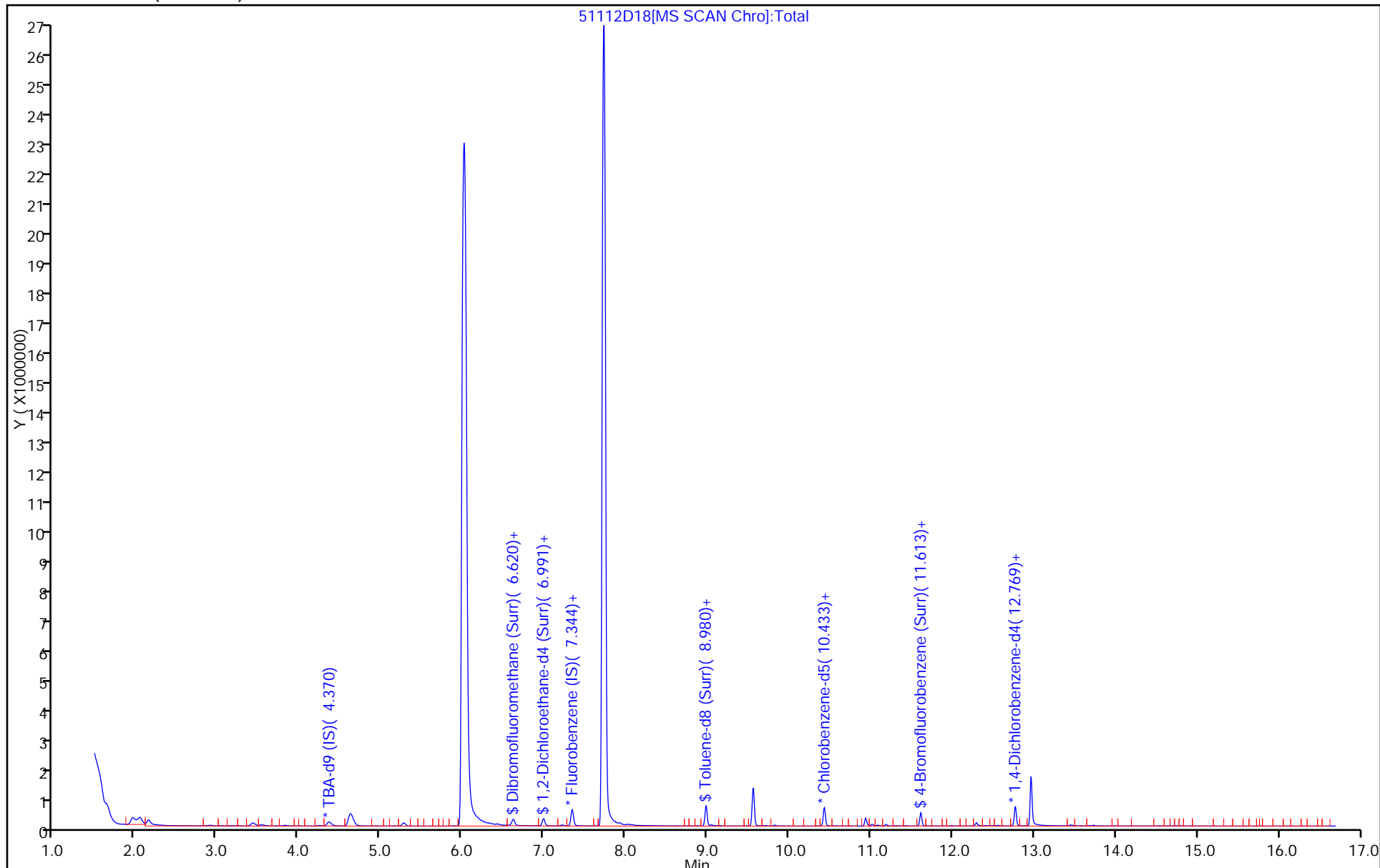
Dil. Factor: 1.0000

ALS Bottle#: 18

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D
 Lims ID: 180-72047-C-4
 Client ID: HD-MW-136A-459.5/460.0
 Sample Type: Client
 Inject. Date: 13-Nov-2017 00:07:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-018
 Misc. Info.: 180-72047-C-4
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 10:44:51 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf Date: 13-Nov-2017 20:49:28

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	52.5	105.07
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.3	106.66
\$ 7 Toluene-d8 (Surr)	50.0	48.6	97.25
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.7	99.42

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

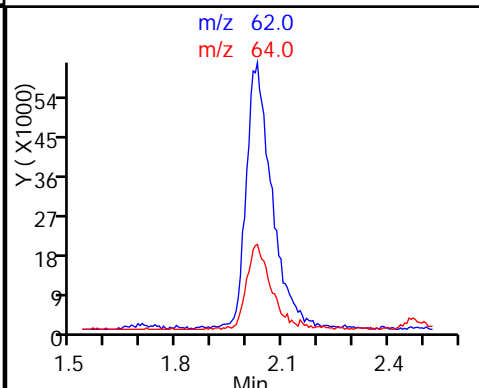
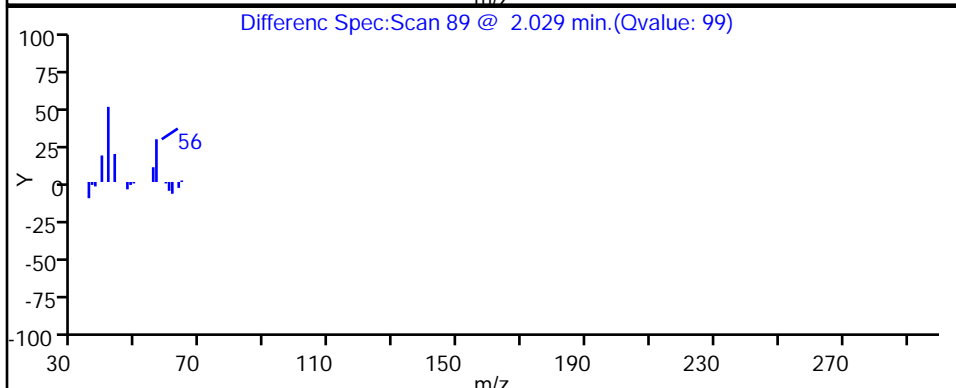
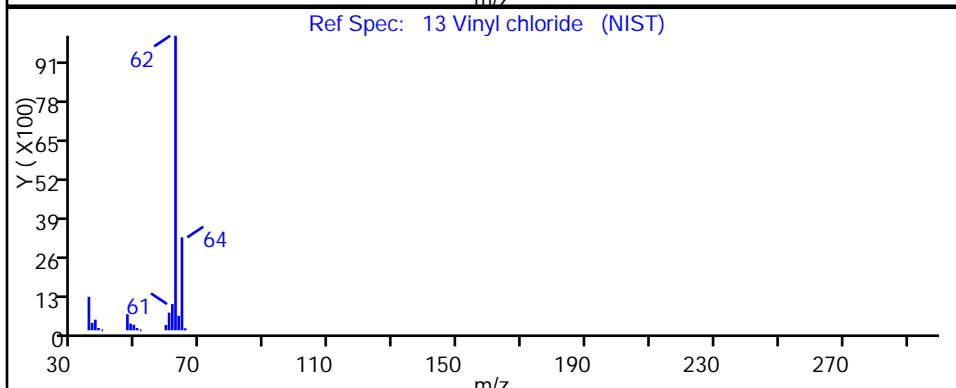
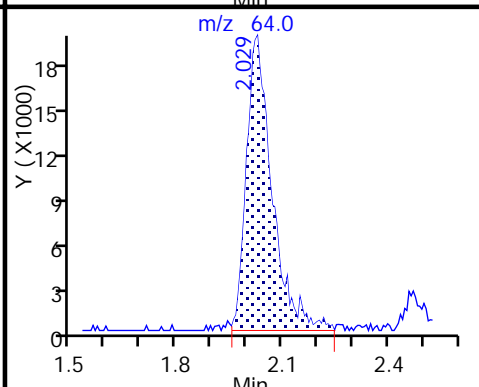
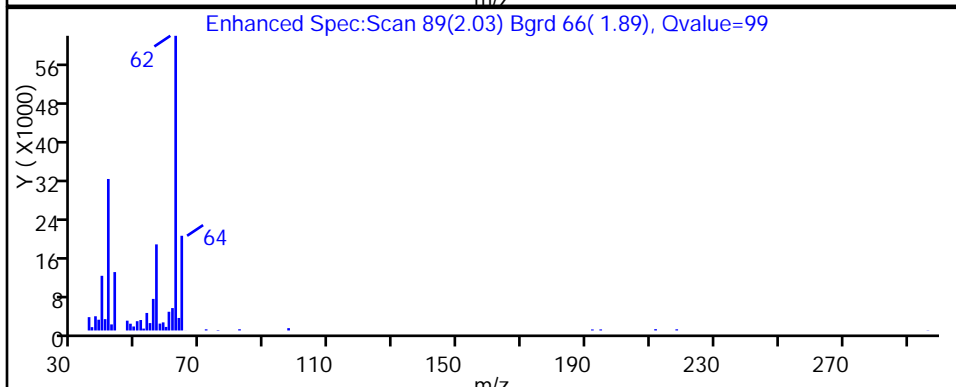
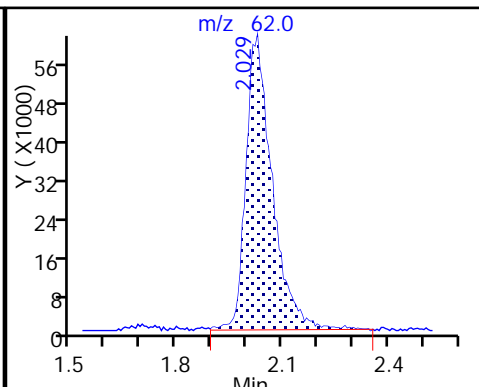
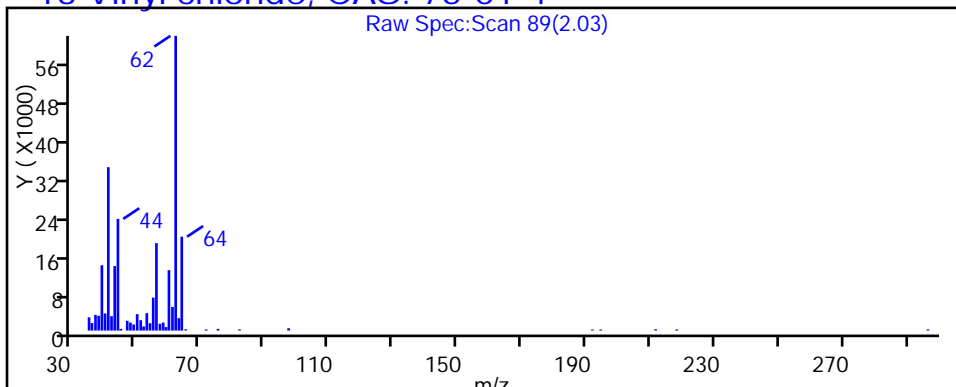
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

13 Vinyl chloride, CAS: 75-01-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

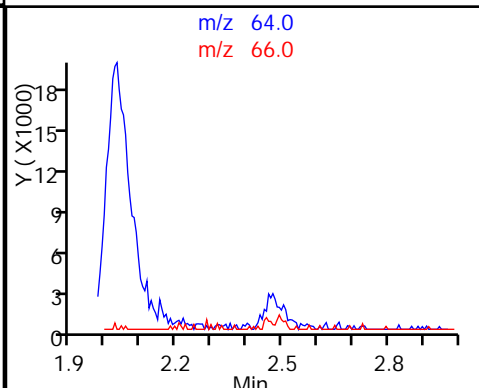
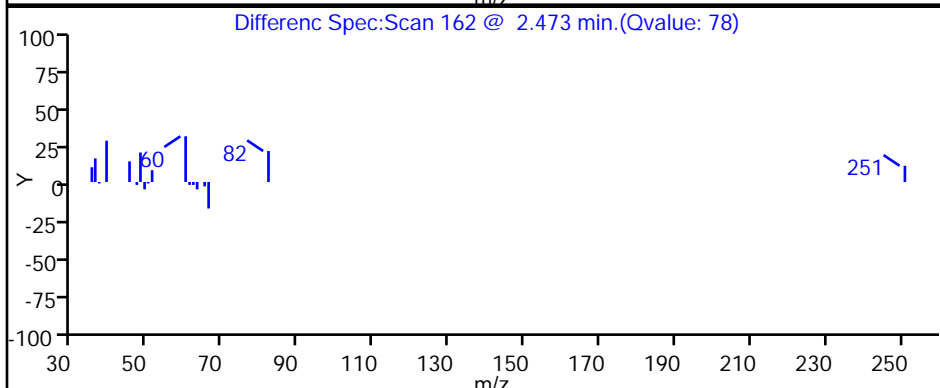
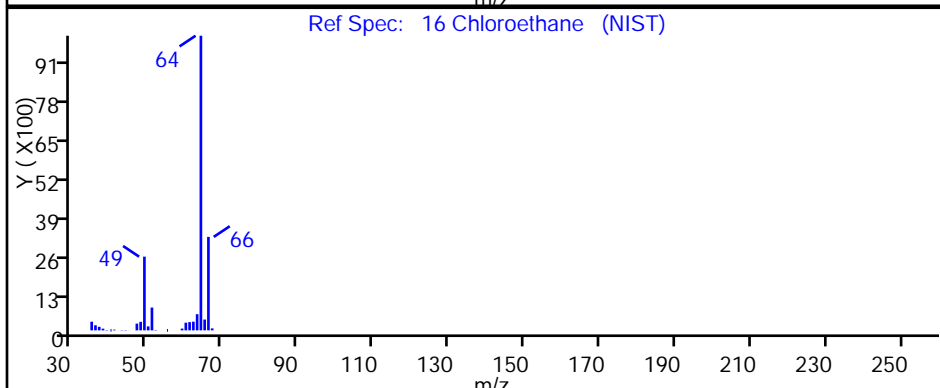
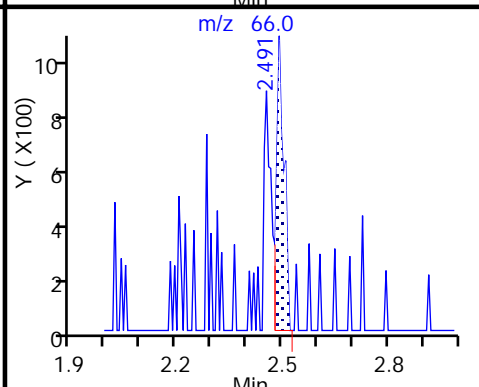
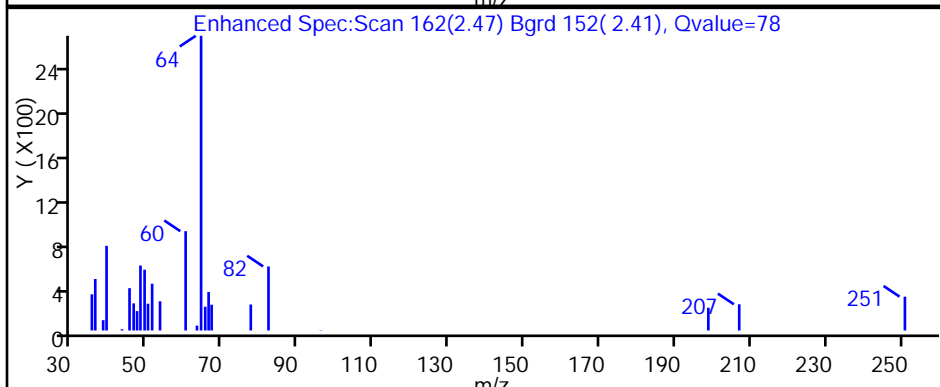
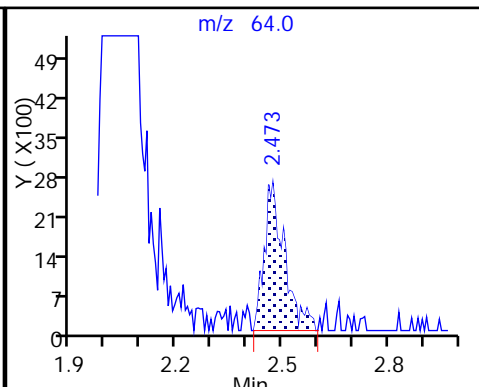
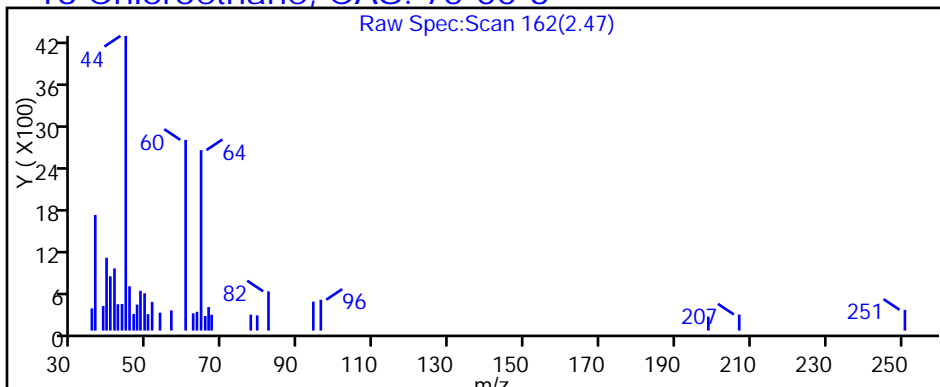
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

16 Chloroethane, CAS: 75-00-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

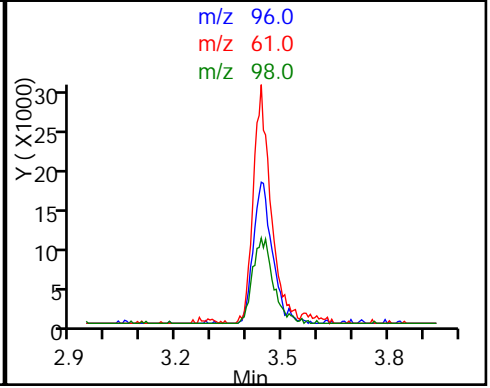
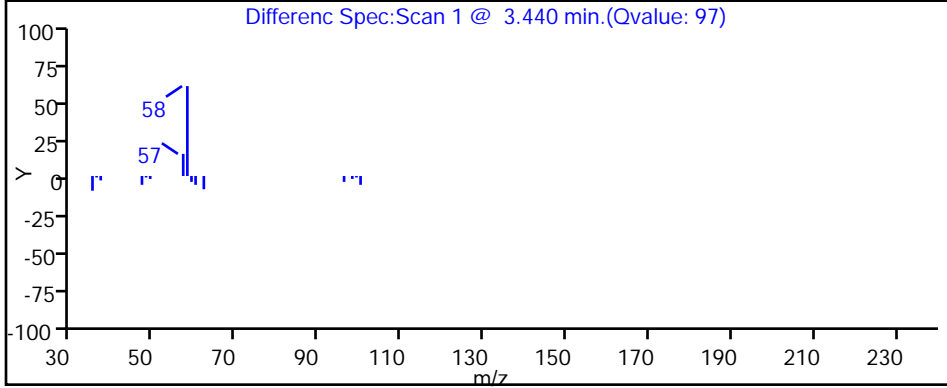
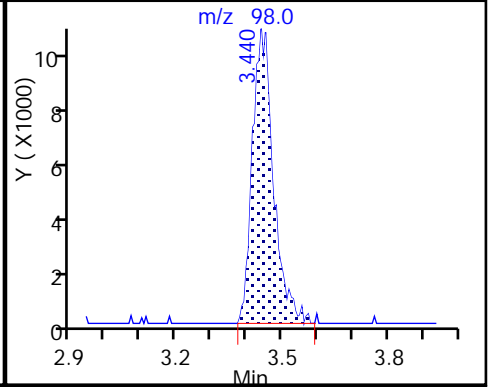
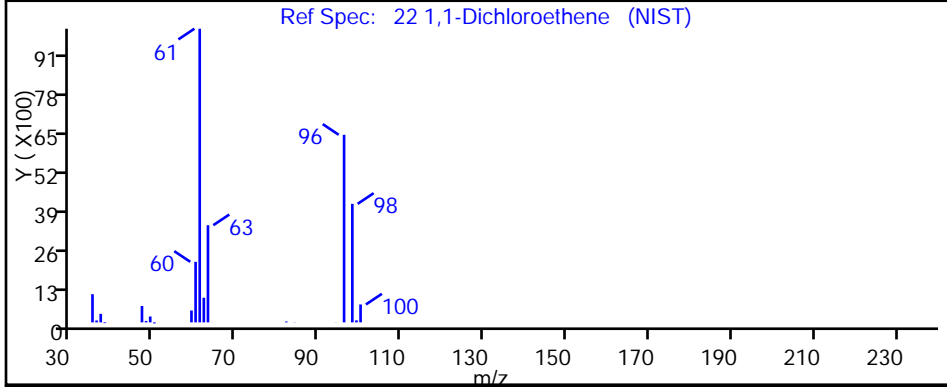
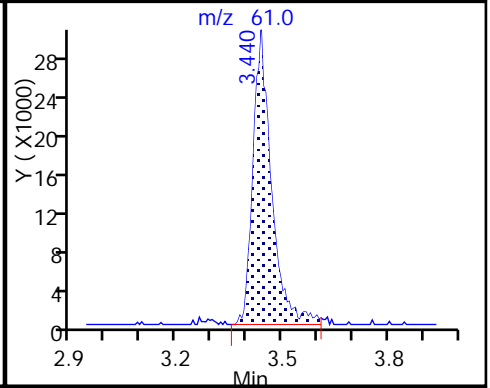
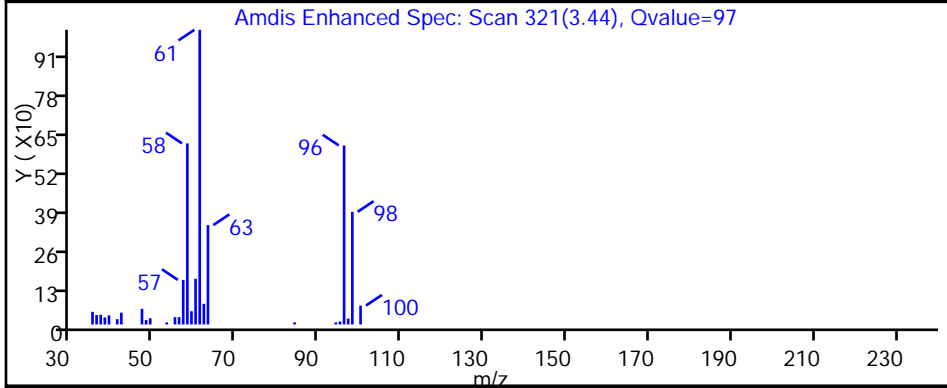
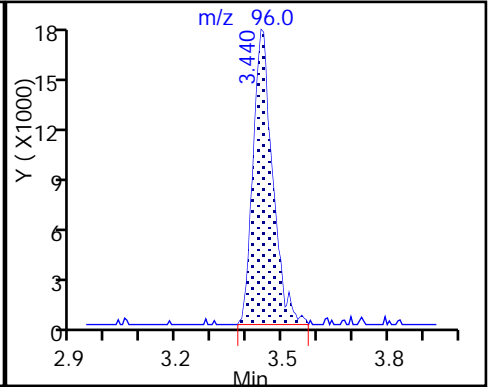
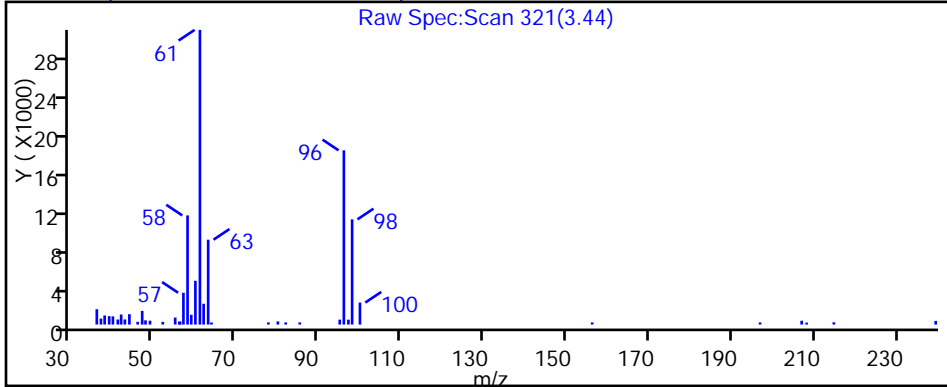
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

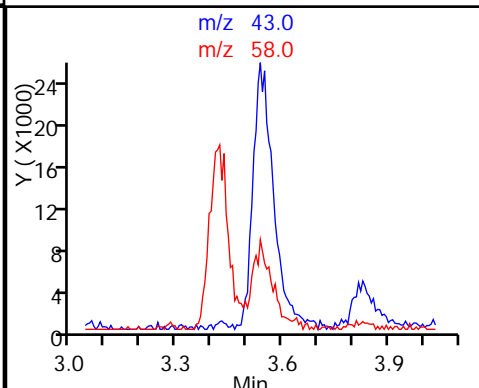
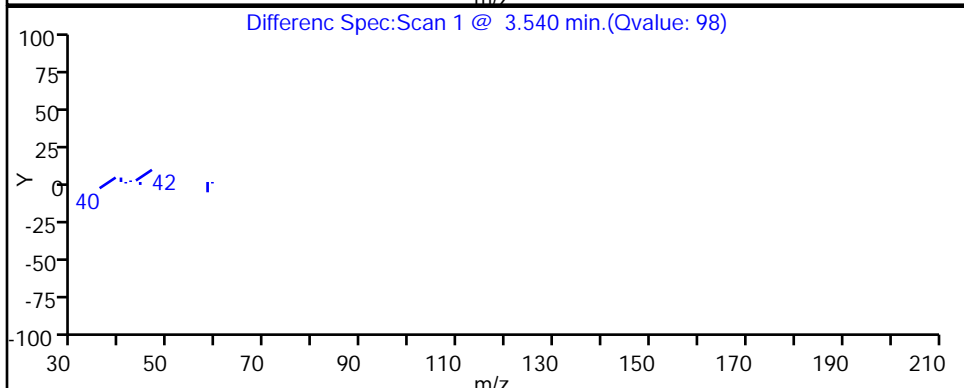
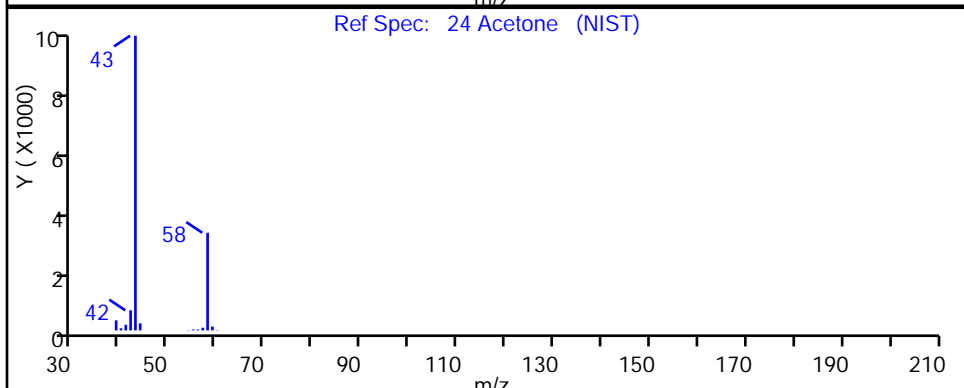
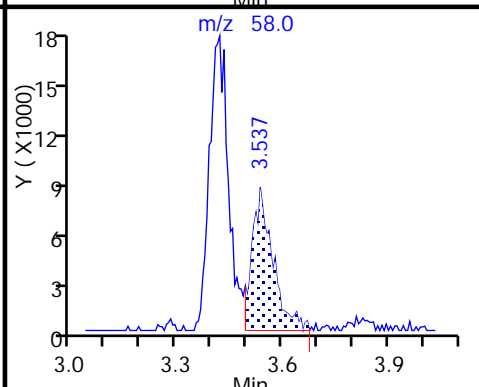
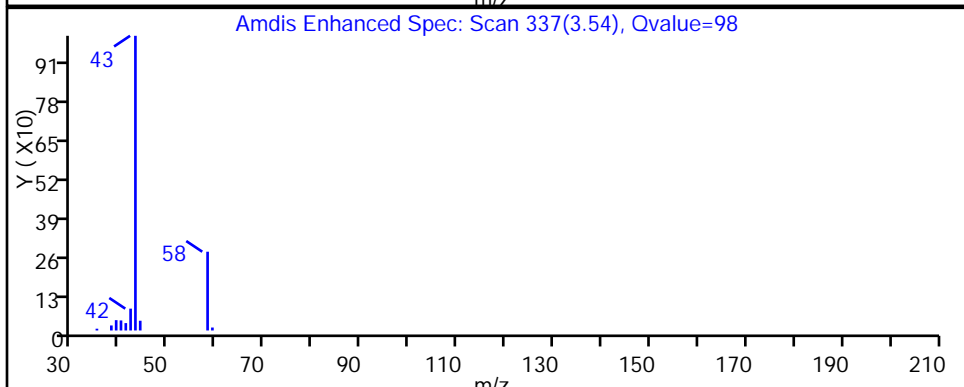
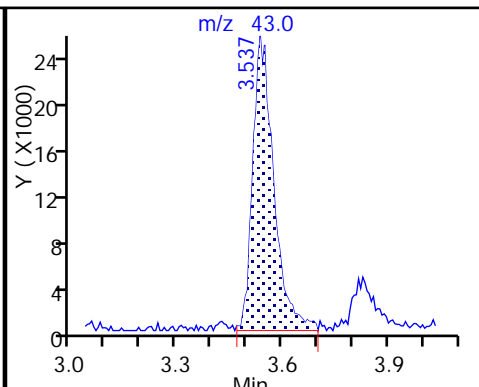
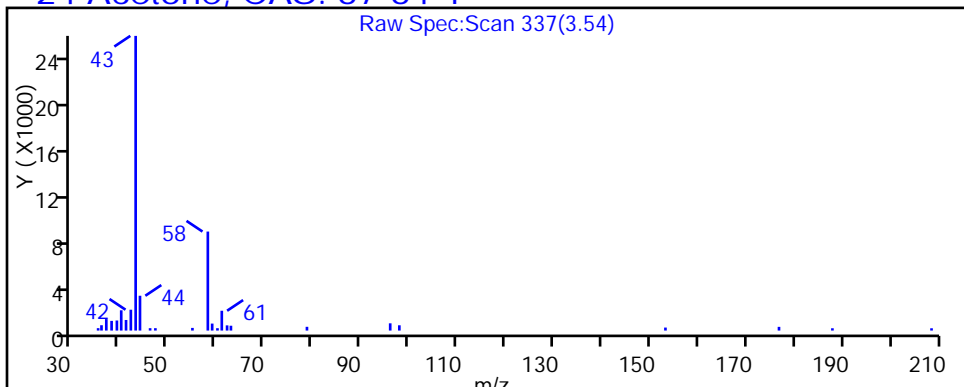
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

24 Acetone, CAS: 67-64-1



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

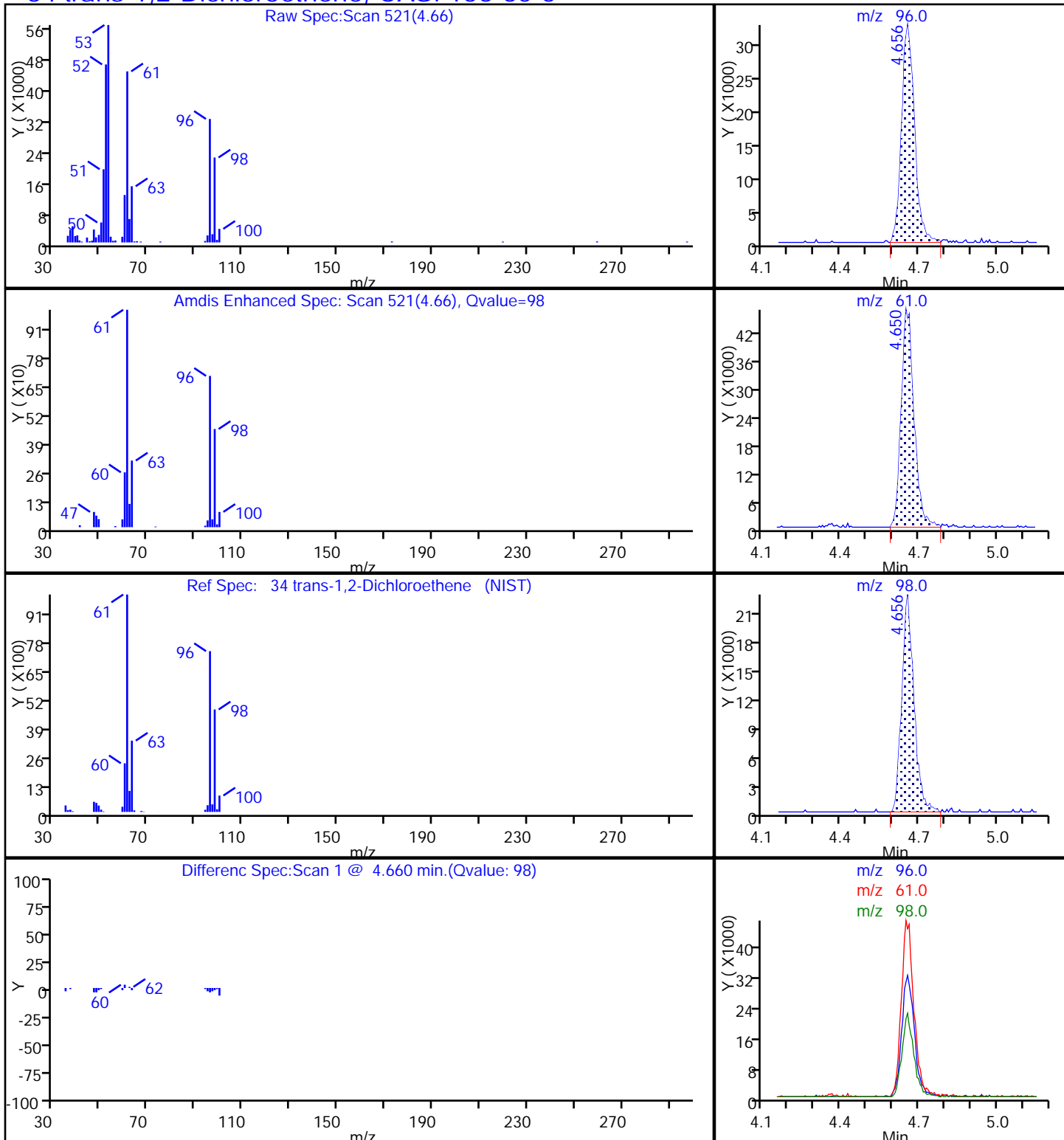
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

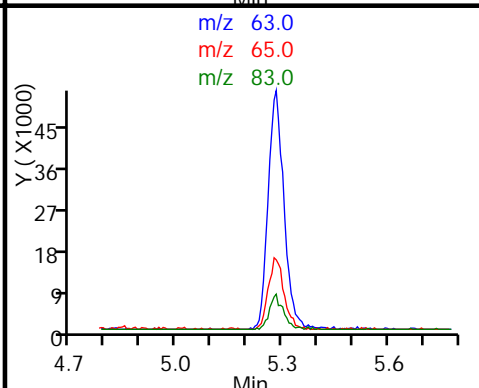
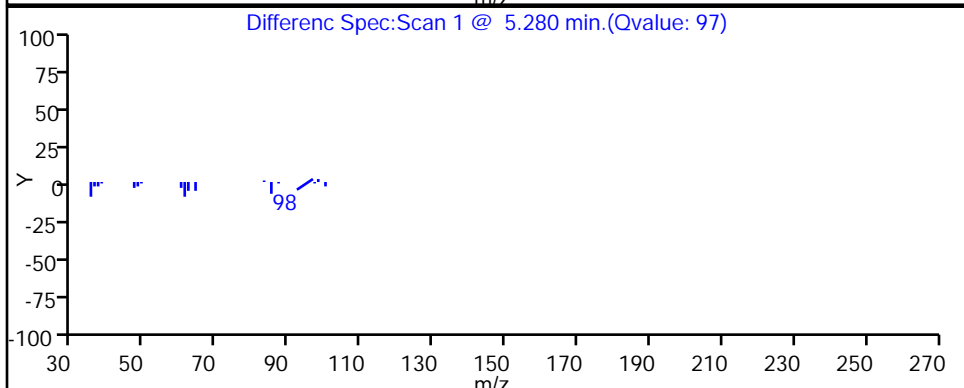
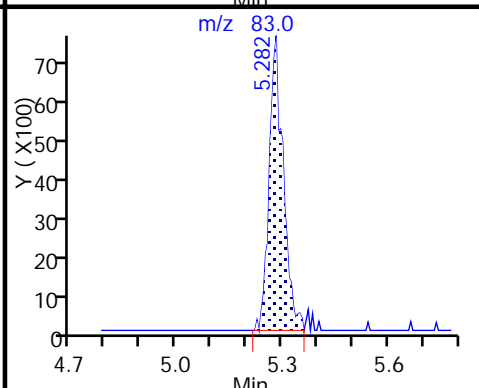
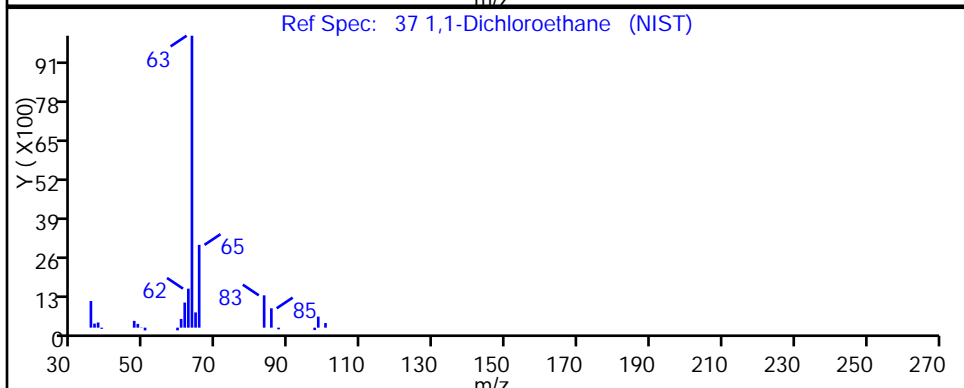
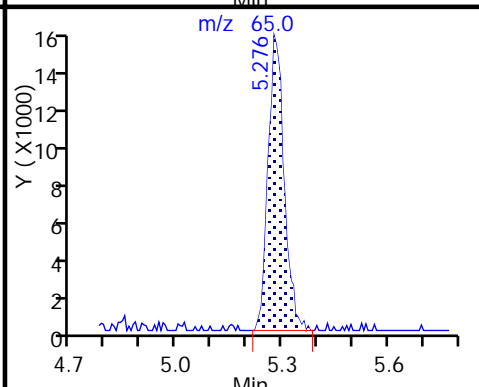
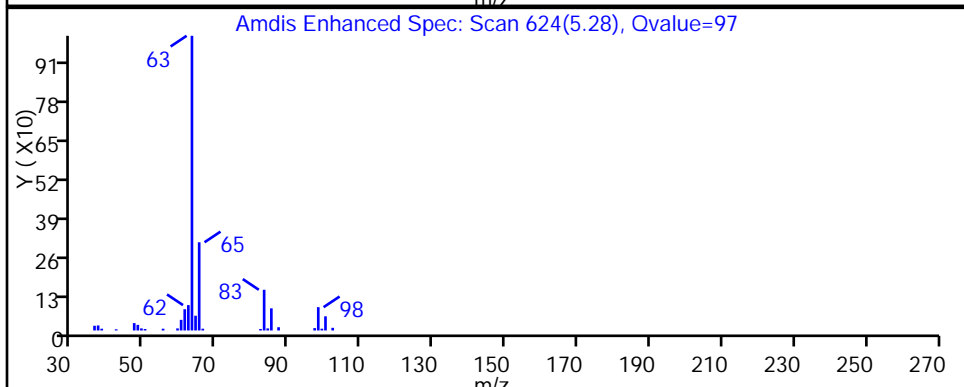
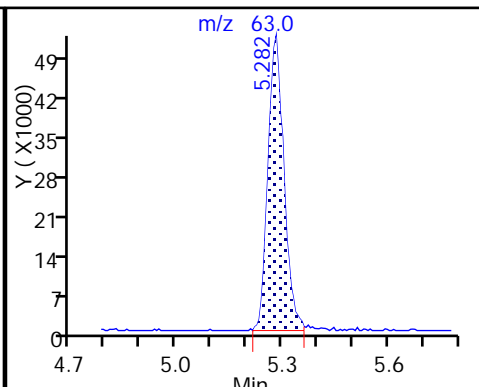
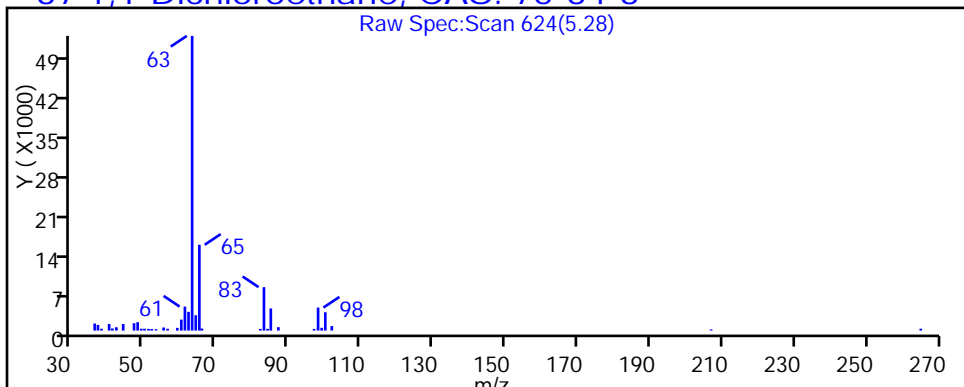
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

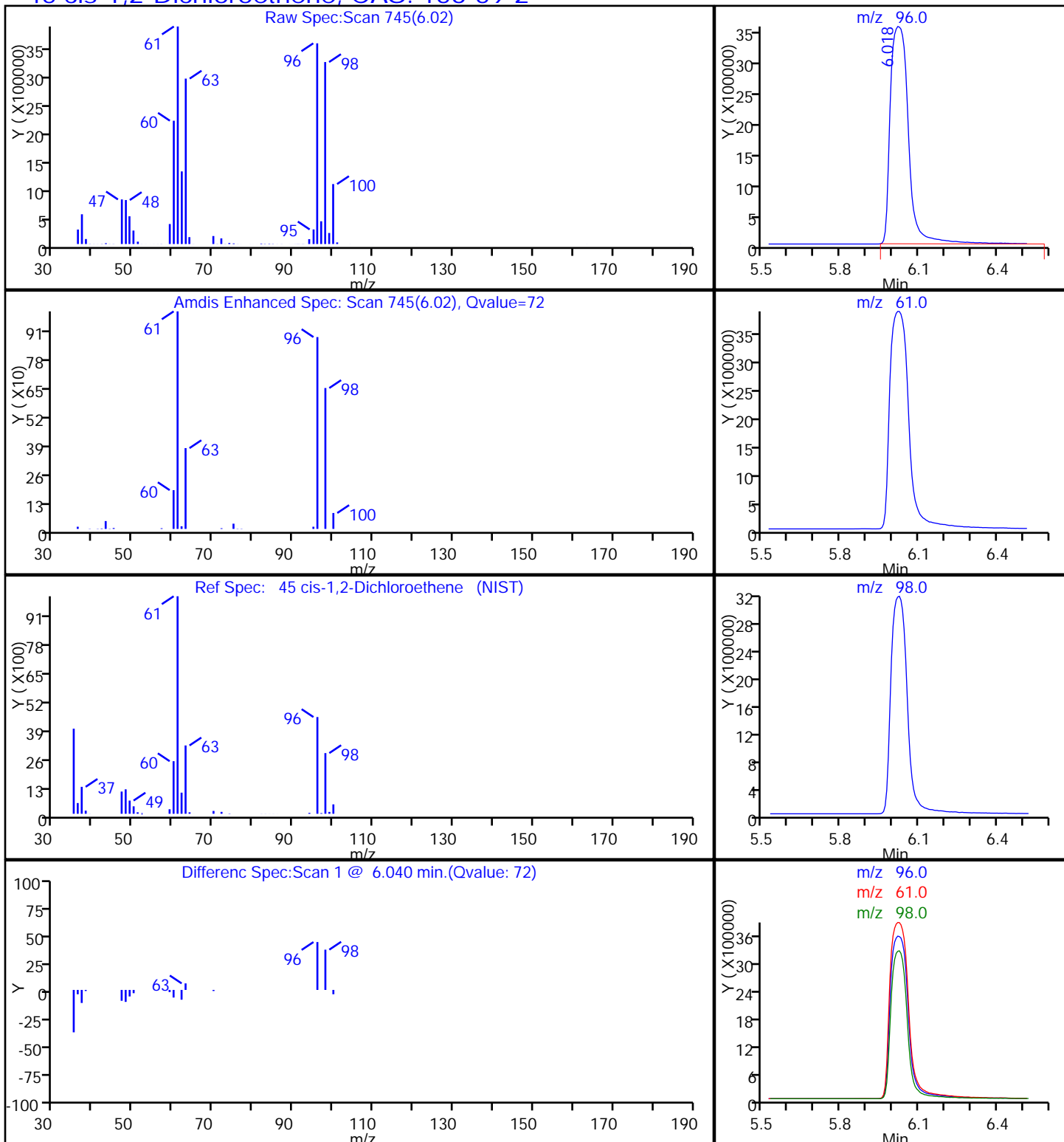
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

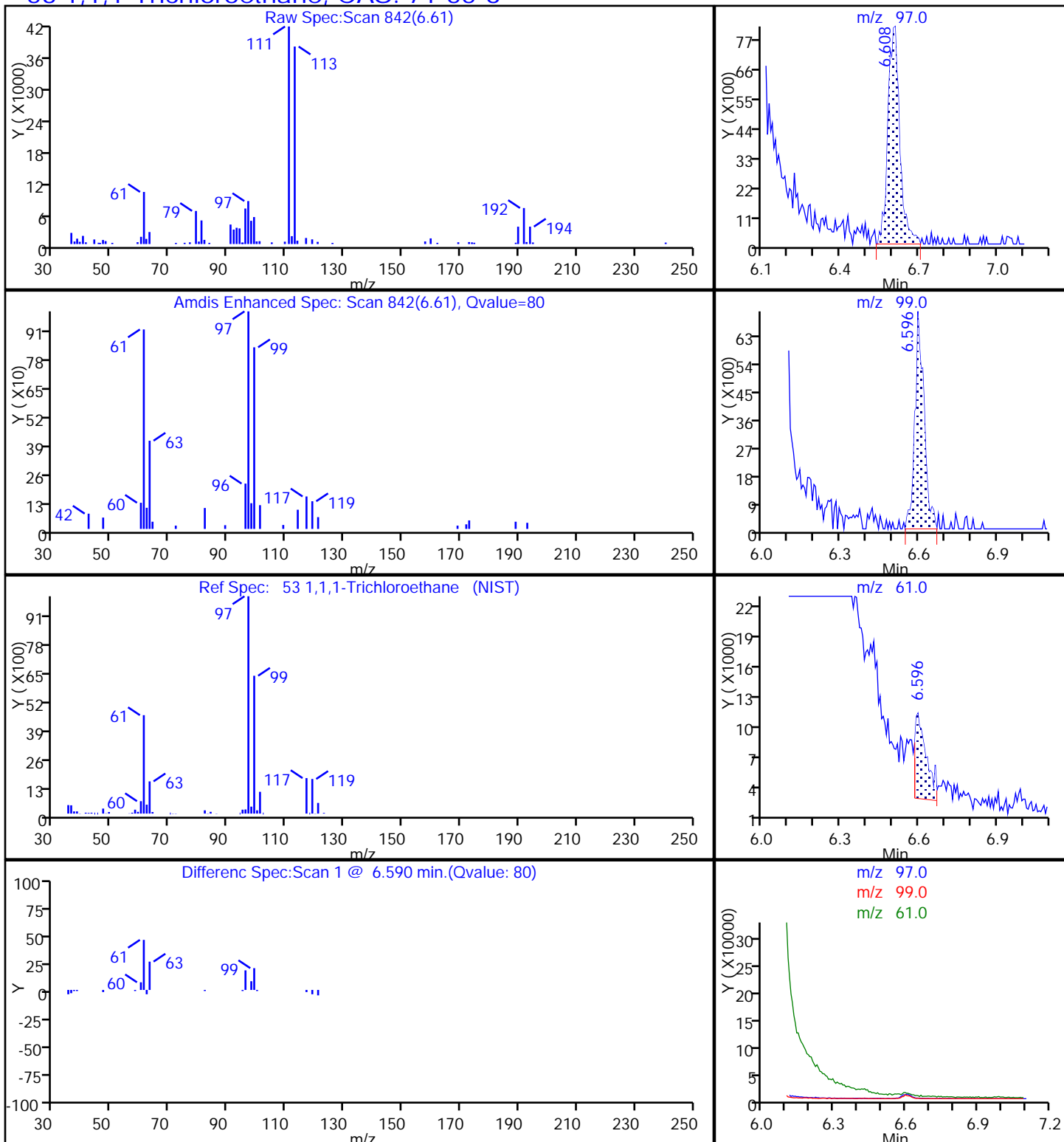
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

53 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

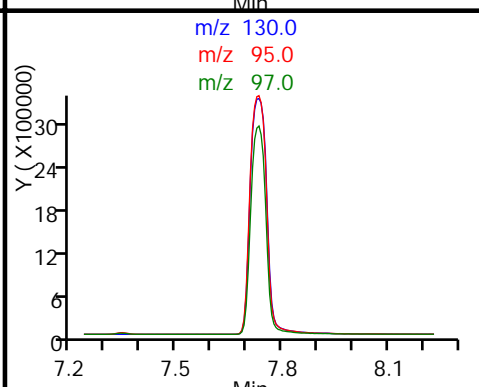
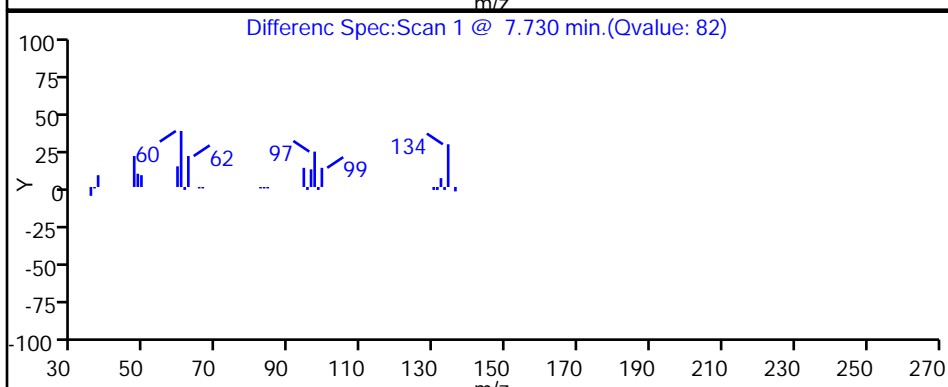
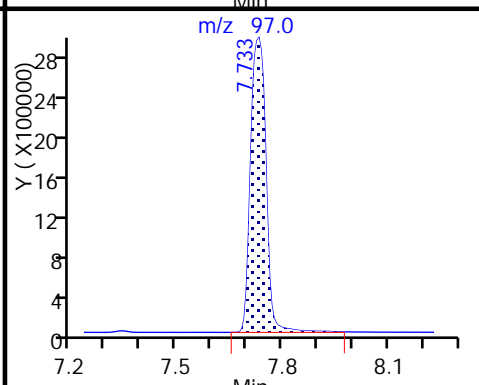
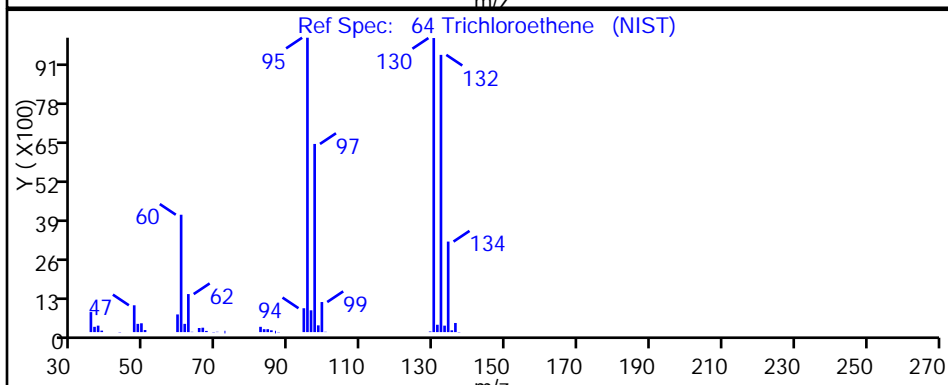
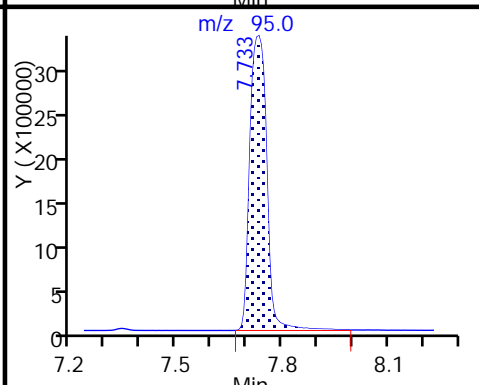
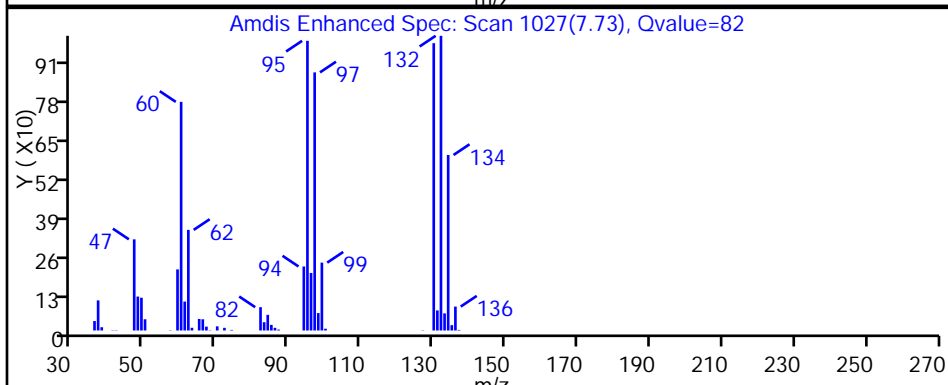
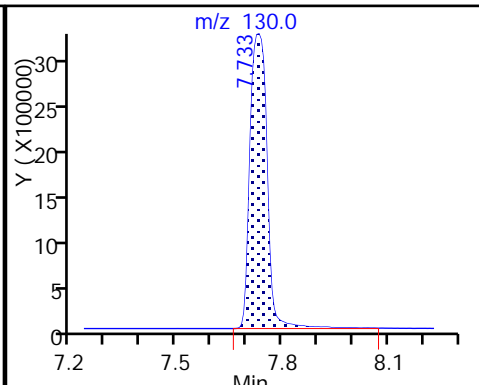
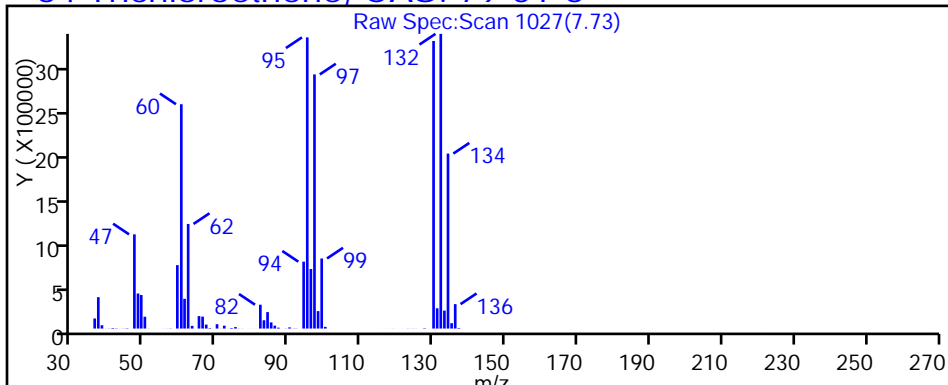
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

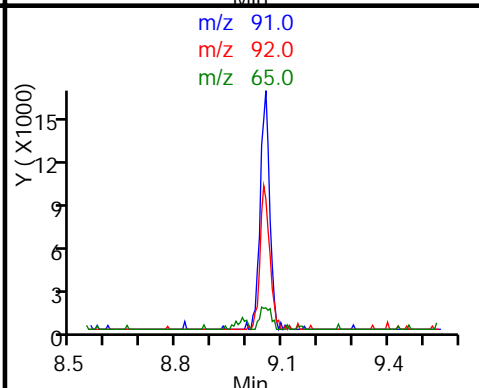
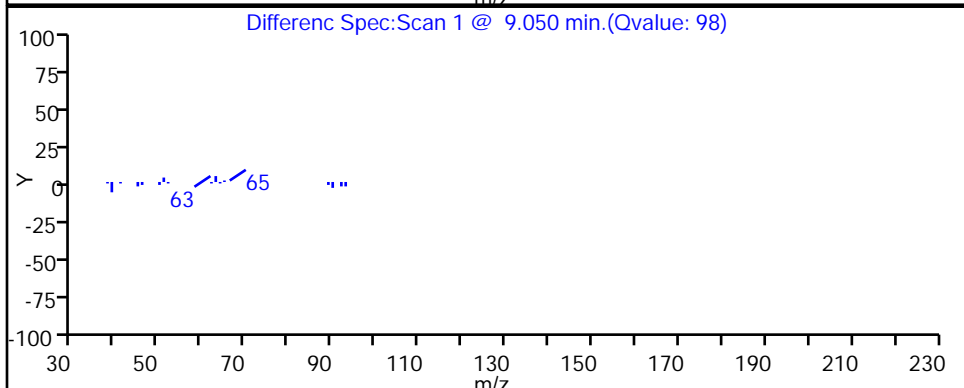
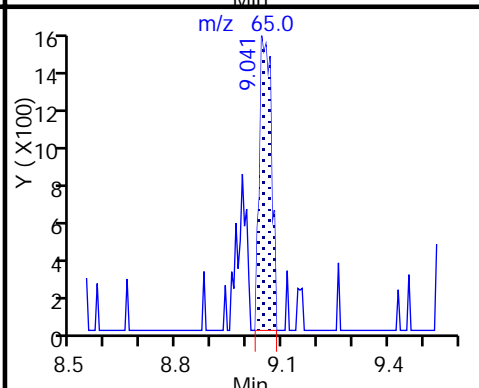
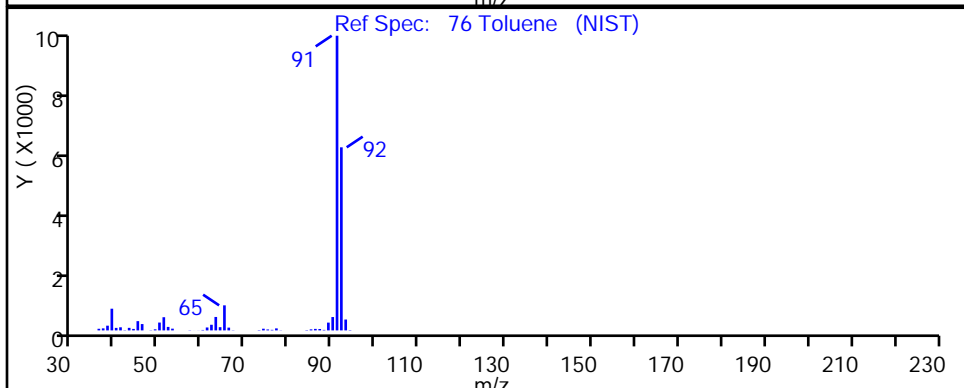
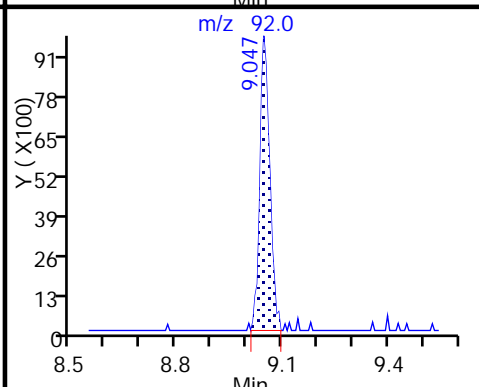
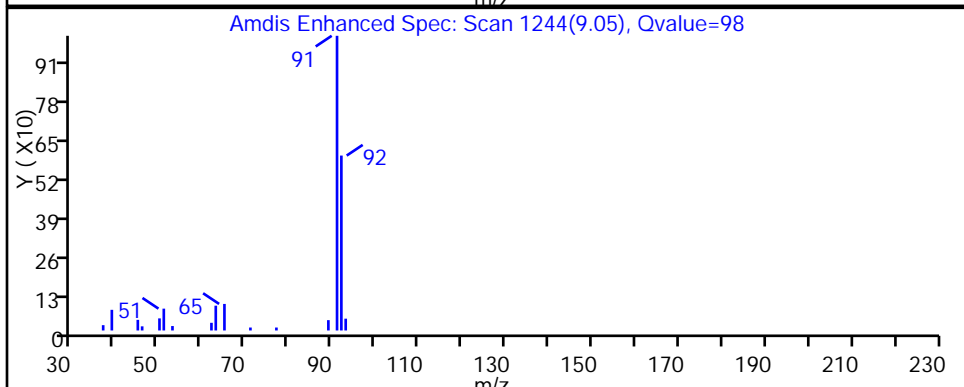
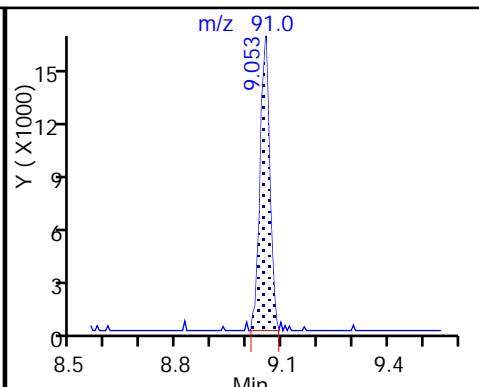
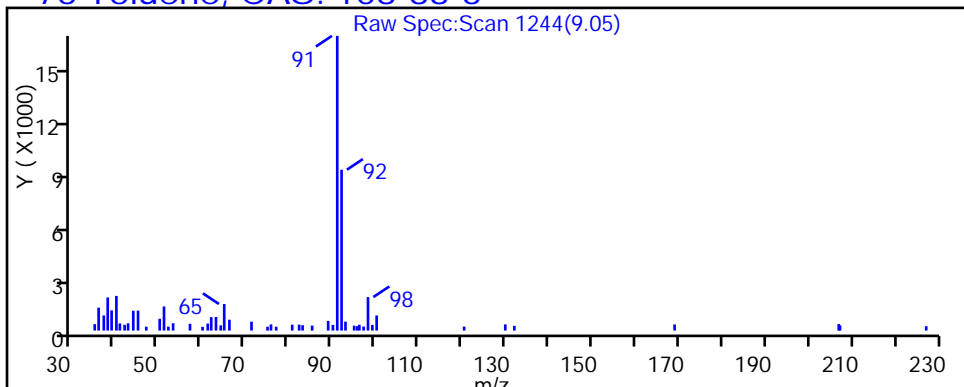
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

76 Toluene, CAS: 108-88-3



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

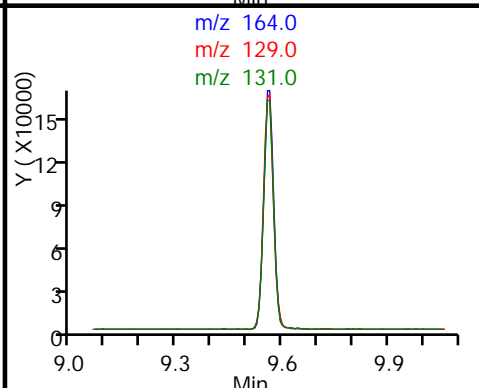
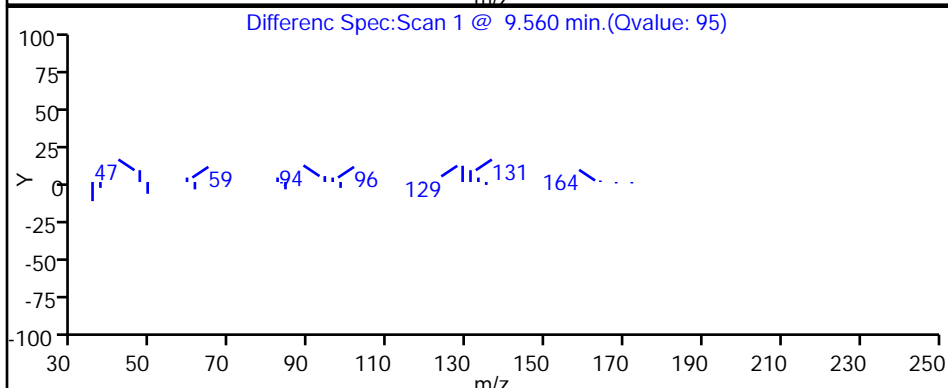
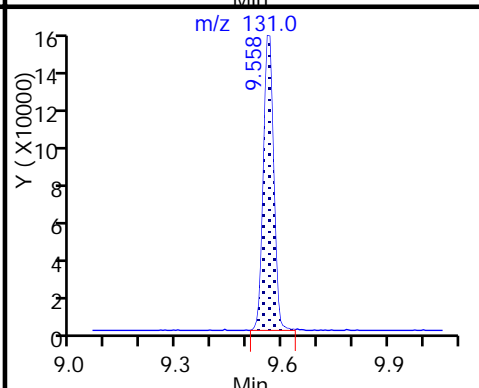
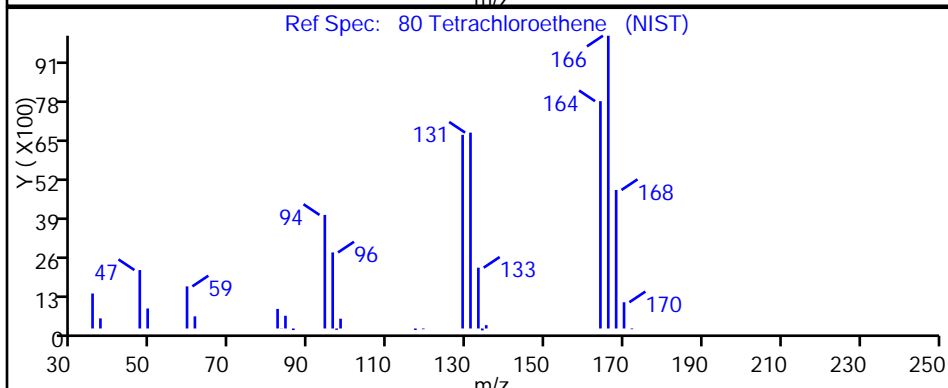
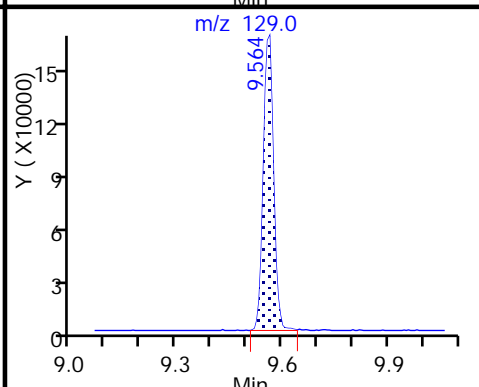
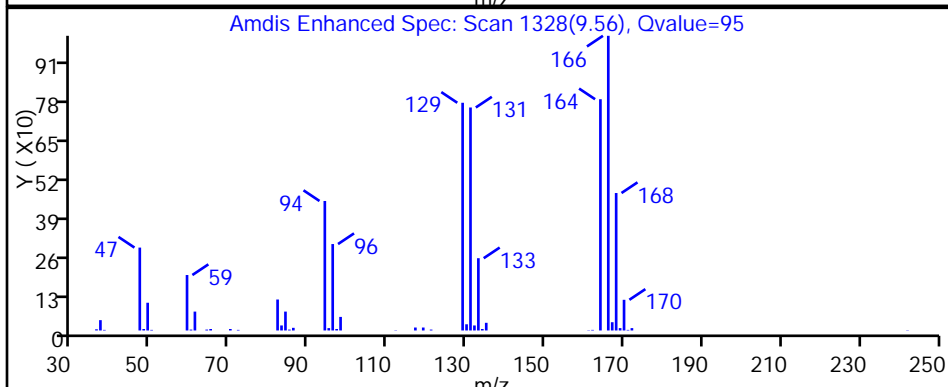
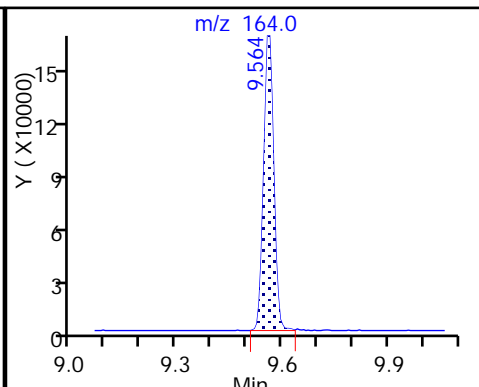
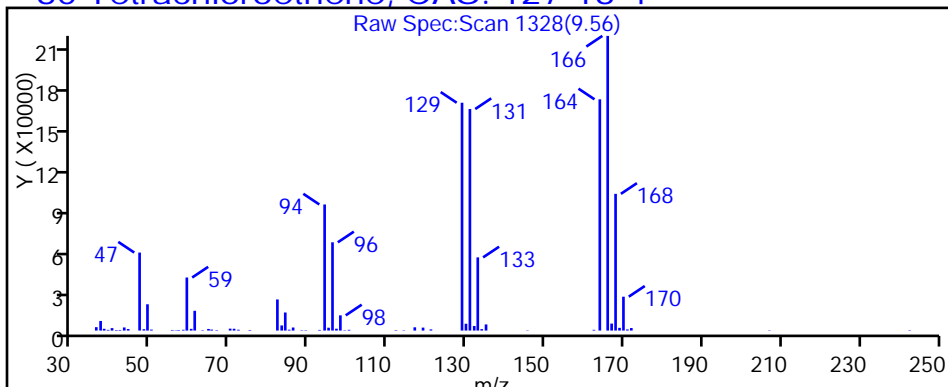
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D18.D

Injection Date: 13-Nov-2017 00:07:30

Instrument ID: CHHP5

Lims ID: 180-72047-C-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 18

Worklist Smp#: 18

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

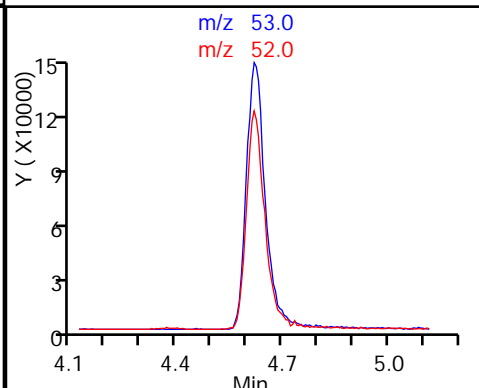
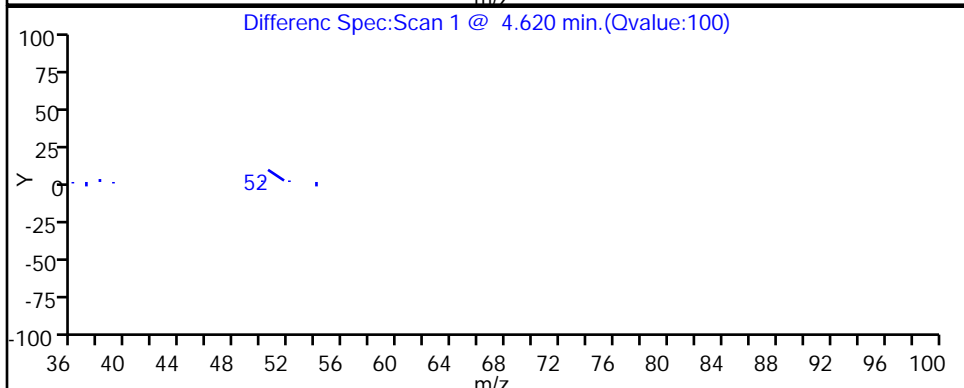
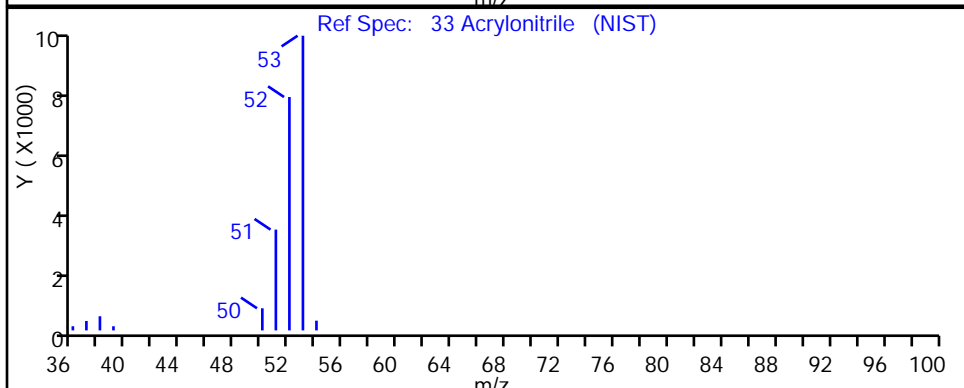
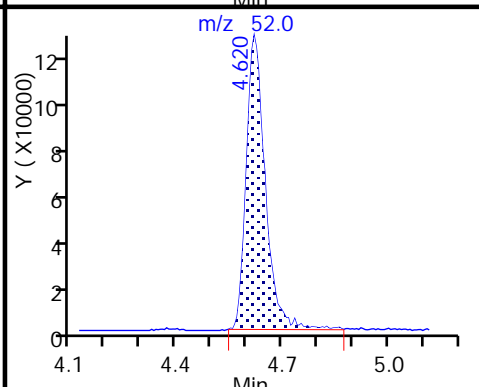
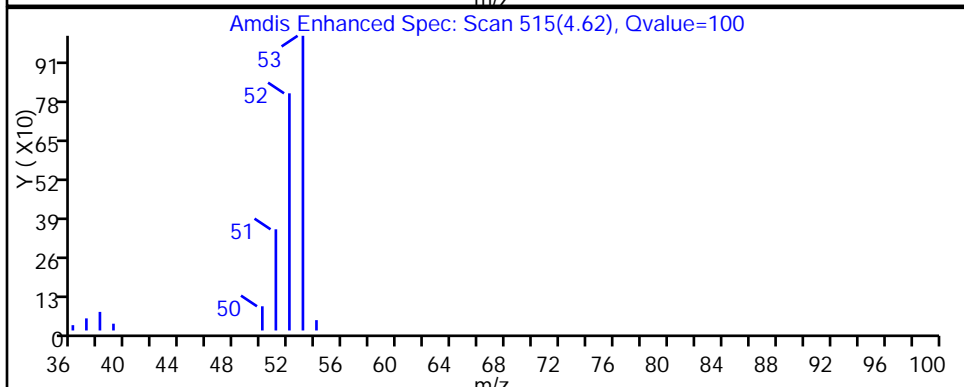
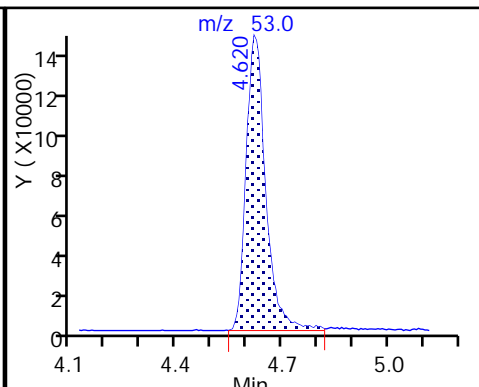
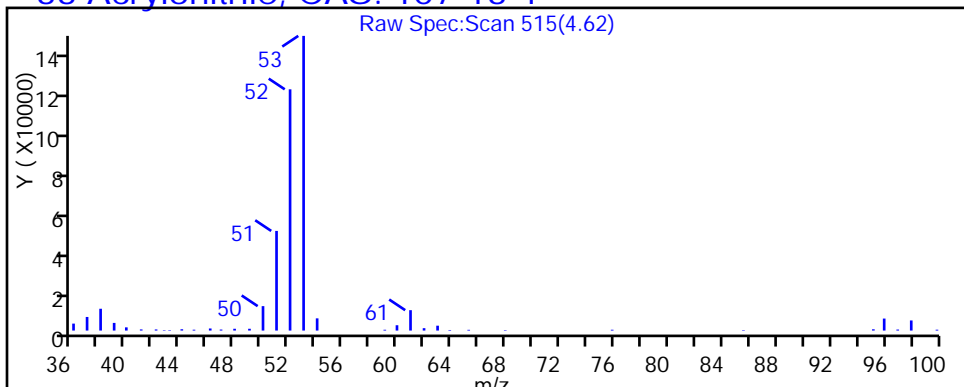
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

33 Acrylonitrile, CAS: 107-13-1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-136A-459.5/460.0 DL Lab Sample ID: 180-72047-4 DL
 Matrix: Water Lab File ID: 51115D24.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:10
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 10:21
 Soil Aliquot Vol: _____ Dilution Factor: 100
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	100	U H	100	90
75-01-4	Vinyl chloride	100	U H	100	88
74-83-9	Bromomethane	100	U H	100	89
75-00-3	Chloroethane	100	U H	100	90
75-35-4	1,1-Dichloroethene	100	U H	100	55
67-64-1	Acetone	500	U H	500	340
75-15-0	Carbon disulfide	100	U H	100	88
75-09-2	Methylene Chloride	100	U H	100	36
156-60-5	trans-1,2-Dichloroethene	100	U H	100	67
1634-04-4	Methyl tert-butyl ether	100	U H	100	59
75-34-3	1,1-Dichloroethane	100	U H	100	63
156-59-2	cis-1,2-Dichloroethene	2300	H	100	71
74-97-5	Bromochloromethane	100	U H	100	63
78-93-3	2-Butanone (MEK)	500	U H	500	260
67-66-3	Chloroform	100	U H	100	60
71-55-6	1,1,1-Trichloroethane	100	U H	100	60
56-23-5	Carbon tetrachloride	100	U H	100	88
71-43-2	Benzene	100	U H	100	60
107-06-2	1,2-Dichloroethane	100	U H	100	57
79-01-6	Trichloroethene	600	H ^c *	100	69
78-87-5	1,2-Dichloropropane	100	U H	100	66
75-27-4	Bromodichloromethane	100	U H	100	64
10061-01-5	cis-1,3-Dichloropropene	100	U H	100	59
108-10-1	4-Methyl-2-pentanone (MIBK)	500	U H	500	310
108-88-3	Toluene	100	U H	100	46
10061-02-6	trans-1,3-Dichloropropene	100	U H	100	58
79-00-5	1,1,2-Trichloroethane	100	U H	100	45
127-18-4	Tetrachloroethene	100	U H *	100	47
591-78-6	2-Hexanone	500	U H	500	330
124-48-1	Dibromochloromethane	100	U H	100	84
106-93-4	1,2-Dibromoethane (EDB)	100	U H	100	50
108-90-7	Chlorobenzene	100	U H	100	50
630-20-6	1,1,1,2-Tetrachloroethane	100	U H	100	57
100-41-4	Ethylbenzene	100	U H	100	51

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-MW-136A-459.5/460.0 DL Lab Sample ID: 180-72047-4 DL
 Matrix: Water Lab File ID: 51115D24.D
 Analysis Method: 8260C Date Collected: 11/01/2017 09:10
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 10:21
 Soil Aliquot Vol: _____ Dilution Factor: 100
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	200	U H	200	89
100-42-5	Styrene	100	U H	100	47
75-25-2	Bromoform	100	U H	100	98
79-34-5	1,1,2,2-Tetrachloroethane	100	U H	100	60
107-13-1	Acrylonitrile	2000	U H	2000	780
123-91-1	1,4-Dioxane	20000	U H	20000	1400

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		65-121
2037-26-5	Toluene-d8 (Surr)	95		73-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D24.D
 Lims ID: 180-72047-A-4
 Client ID: HD-MW-136A-459.5/460.0
 Sample Type: Client
 Inject. Date: 16-Nov-2017 10:21:30 ALS Bottle#: 24 Worklist Smp#: 24
 Purge Vol: 5.000 mL Dil. Factor: 100.0000
 Sample Info: 180-0019317-024
 Misc. Info.: 180-72047-A-4
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: journey

Date: 16-Nov-2017 10:42:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.377	-0.023	0	224205	1000.0	
* 2 Fluorobenzene (IS)	96	7.347	7.352	-0.005	98	571694	50.0	
* 3 Chlorobenzene-d5	119	10.443	10.443	0.000	88	135119	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	97	179469	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.629	6.622	0.007	92	136842	49.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.993	0.001	0	185514	55.3	
\$ 7 Toluene-d8 (Surr)	98	8.989	8.995	-0.006	95	508382	47.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.629	0.001	83	175127	45.1	
12 Chloromethane	50		1.859				ND	
13 Vinyl chloride	62		1.974				ND	
15 Bromomethane	94		2.309				ND	
16 Chloroethane	64		2.418				ND	
22 1,1-Dichloroethene	96		3.416				ND	
24 Acetone	43		3.526				ND	
26 Carbon disulfide	76		3.714				ND	
31 Methylene Chloride	84		4.225				ND	
33 Acrylonitrile	53		4.615				ND	
34 trans-1,2-Dichloroethene	96		4.645				ND	
35 Methyl tert-butyl ether	73		4.663				ND	
37 1,1-Dichloroethane	63		5.272				ND	
45 cis-1,2-Dichloroethene	96	6.021	6.020	0.001	83	420685	115.3	
46 2-Butanone (MEK)	43		6.038				ND	
49 Chlorobromomethane	128		6.300				ND	
52 Chloroform	83	6.440	6.446	-0.006	17	4541	0.8201	
53 1,1,1-Trichloroethane	97		6.598				ND	
56 Carbon tetrachloride	117		6.774				ND	
58 Benzene	78		7.005				ND	
59 1,2-Dichloroethane	62		7.078				ND	
64 Trichloroethene	130	7.736	7.735	0.001	95	104194	29.8	
67 1,2-Dichloropropane	63		8.009				ND	
70 1,4-Dioxane	88		8.094				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.289				ND	
74 cis-1,3-Dichloropropene	75		8.733				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.891				ND	
76 Toluene	91		9.062				ND	
77 trans-1,3-Dichloropropene	75		9.311				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.579				ND	
82 2-Hexanone	43		9.719				ND	
84 Chlorodibromomethane	129		9.871				ND	
85 Ethylene Dibromide	107		9.986				ND	
87 Chlorobenzene	112		10.473				ND	
89 1,1,1,2-Tetrachloroethane	131		10.570				ND	
90 Ethylbenzene	106		10.576				ND	
91 m-Xylene & p-Xylene	106		10.704				ND	
92 o-Xylene	106		11.087				ND	
93 Styrene	104		11.106				ND	
94 Bromoform	173		11.288				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D24.D

Injection Date: 16-Nov-2017 10:21:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-A-4

Lab Sample ID: 180-72047-4

Worklist Smp#: 24

Client ID: HD-MW-136A-459.5/460.0

Purge Vol: 5.000 mL

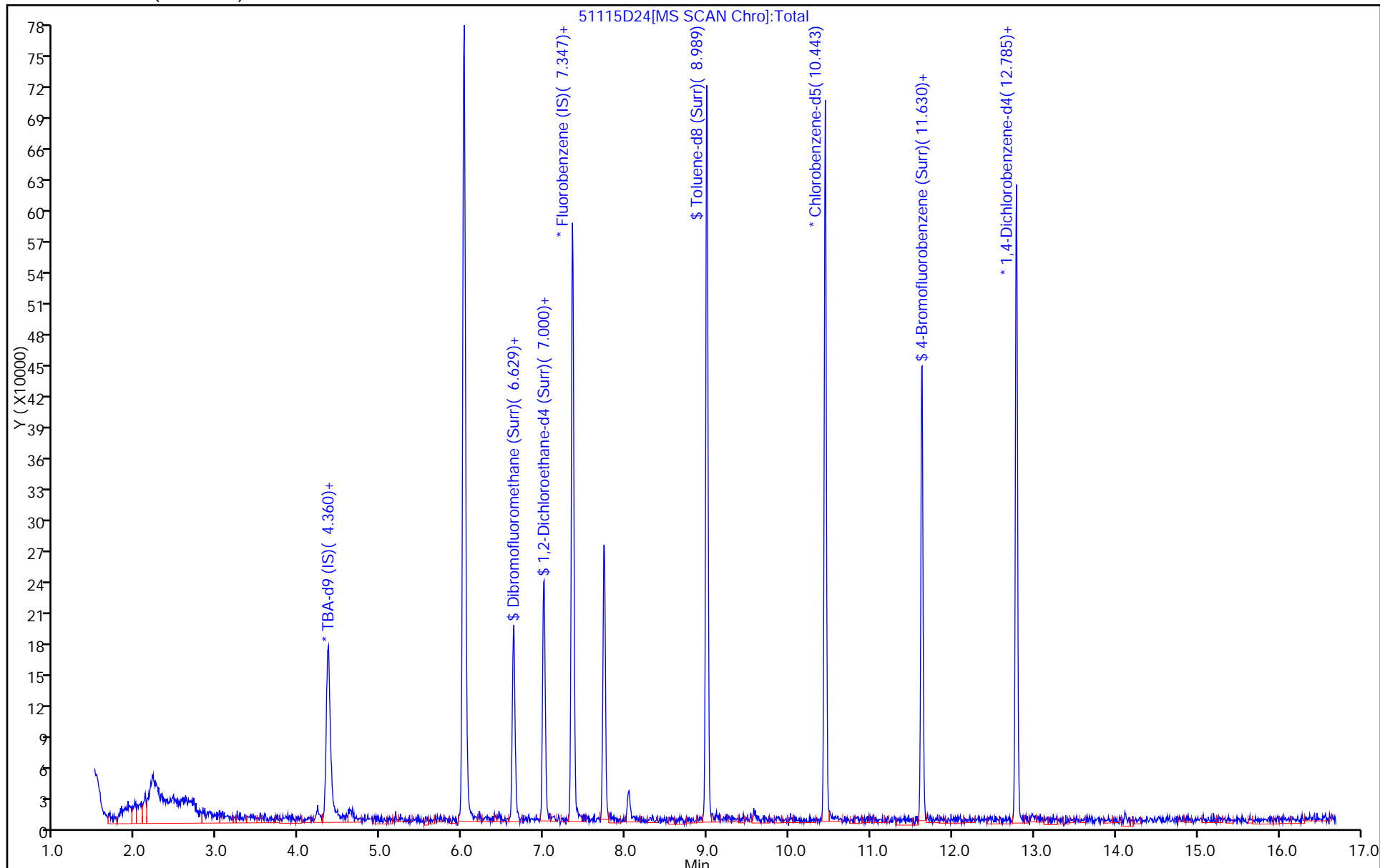
Dil. Factor: 100.0000

ALS Bottle#: 24

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D24.D
 Lims ID: 180-72047-A-4
 Client ID: HD-MW-136A-459.5/460.0
 Sample Type: Client
 Inject. Date: 16-Nov-2017 10:21:30 ALS Bottle#: 24 Worklist Smp#: 24
 Purge Vol: 5.000 mL Dil. Factor: 100.0000
 Sample Info: 180-0019317-024
 Misc. Info.: 180-72047-A-4
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: journeyt

Date: 16-Nov-2017 10:42:53

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.7	99.50
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.3	110.59
\$ 7 Toluene-d8 (Surr)	50.0	47.3	94.55
\$ 8 4-Bromofluorobenzene (Surr)	50.0	45.1	90.18

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D24.D

Injection Date: 16-Nov-2017 10:21:30

Instrument ID: CHHP5

Lims ID: 180-72047-A-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 100.0000

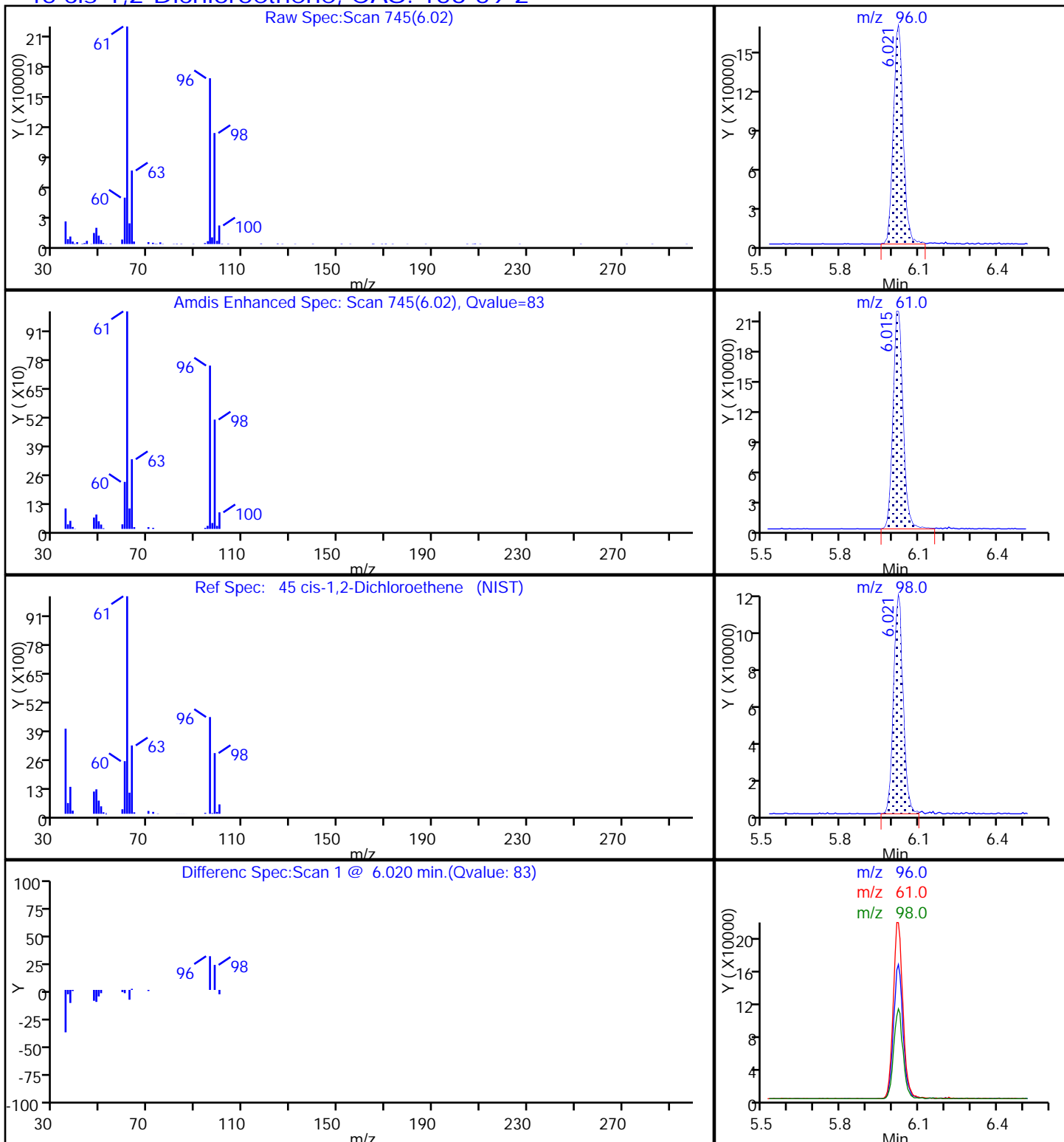
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

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



TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D24.D

Injection Date: 16-Nov-2017 10:21:30

Instrument ID: CHHP5

Lims ID: 180-72047-A-4

Lab Sample ID: 180-72047-4

Client ID: HD-MW-136A-459.5/460.0

Operator ID: 034635

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 5.000 mL

Dil. Factor: 100.0000

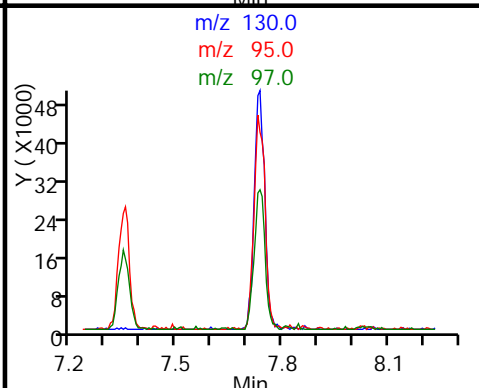
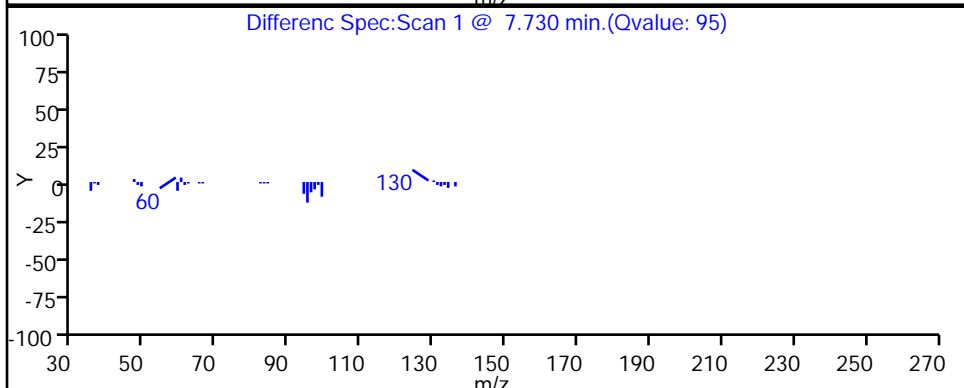
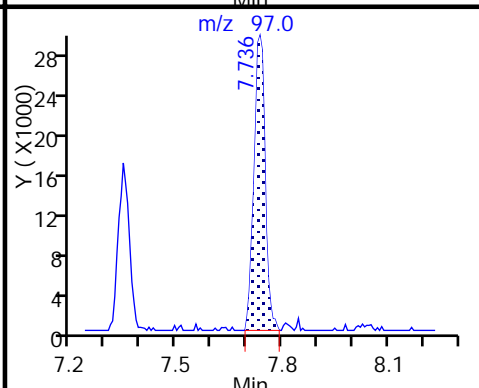
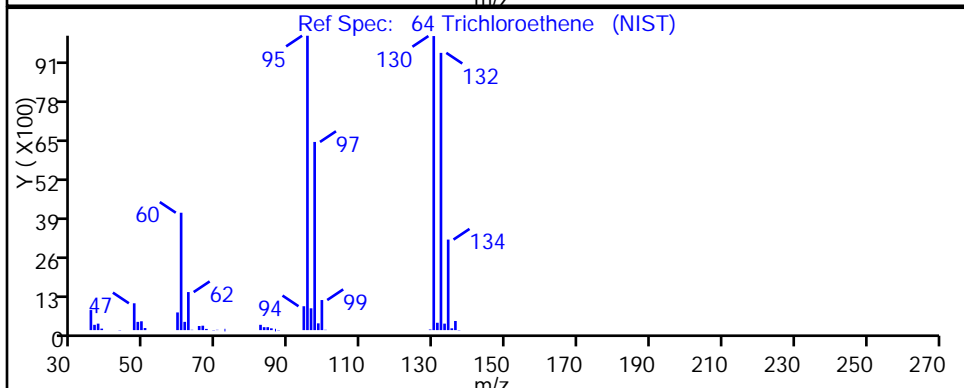
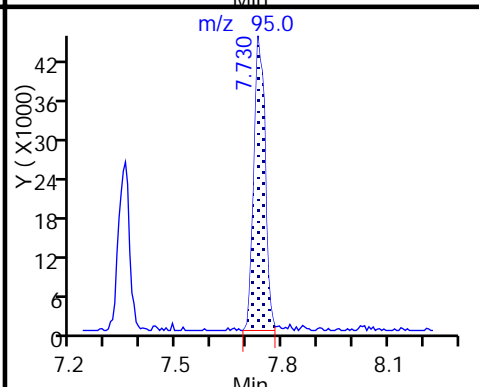
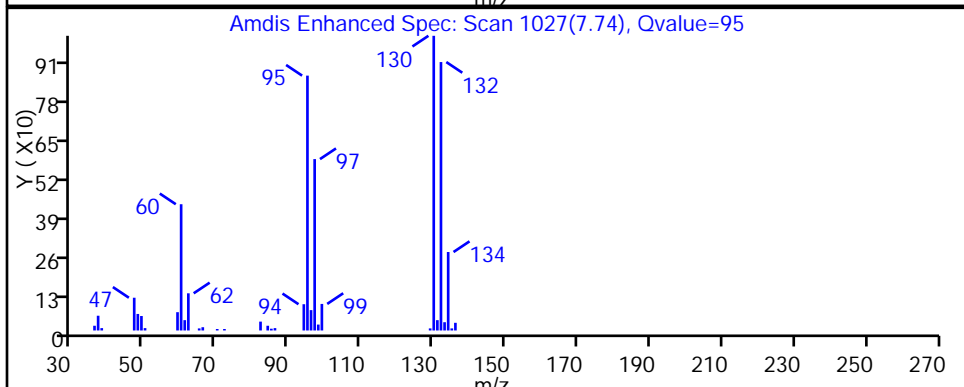
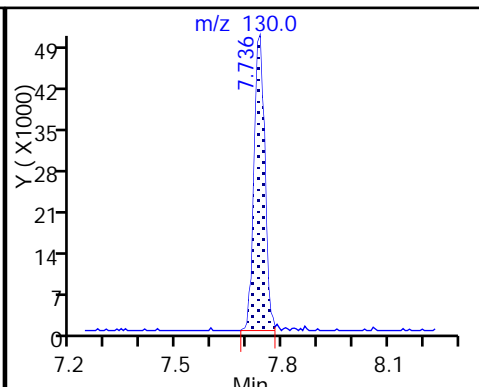
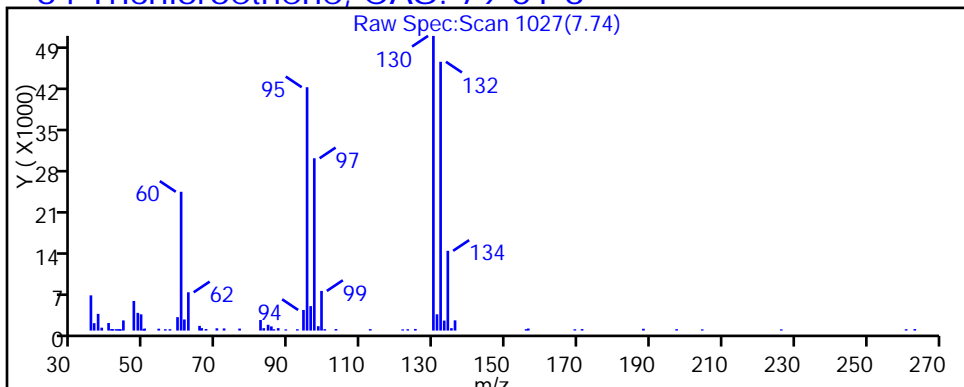
Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

Detector: MS SCAN

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-QC8-0/1-2 Lab Sample ID: 180-72047-5
 Matrix: Water Lab File ID: 51112D12.D
 Analysis Method: 8260C Date Collected: 11/01/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 21:42
 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.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U *	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U ^c	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U ^c	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U ^c	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: HD-QC8-0/1-2 Lab Sample ID: 180-72047-5
 Matrix: Water Lab File ID: 51112D12.D
 Analysis Method: 8260C Date Collected: 11/01/2017 12:00
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 21:42
 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.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U *	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		65-121
2037-26-5	Toluene-d8 (Surr)	90		73-120
460-00-4	4-Bromofluorobenzene (Surr)	83		80-120
1868-53-7	Dibromofluoromethane (Surr)	109		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D12.D
 Lims ID: 180-72047-B-5
 Client ID: HD-QC8-0/1-2
 Sample Type: Client
 Inject. Date: 12-Nov-2017 21:42:30 ALS Bottle#: 12 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-012
 Misc. Info.: 180-72047-B-5
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf

Date: 13-Nov-2017 20:44:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.369	-0.006	0	214792	1000.0	
* 2 Fluorobenzene (IS)	96	7.343	7.343	0.000	99	484863	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.432	0.001	87	114879	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.774	0.000	96	153106	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.626	6.623	0.003	93	127219	54.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.997	6.988	0.009	0	158295	55.6	
\$ 7 Toluene-d8 (Surr)	98	8.985	8.983	0.002	94	410186	44.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.616	-0.004	83	137299	41.6	
12 Chloromethane	50		1.886				ND	
13 Vinyl chloride	62		2.014				ND	
15 Bromomethane	94		2.366				ND	
16 Chloroethane	64		2.458				ND	
22 1,1-Dichloroethene	96		3.425				ND	
24 Acetone	43	3.530	3.540	-0.010	59	10343	8.16	
26 Carbon disulfide	76		3.704				ND	
31 Methylene Chloride	84		4.227				ND	
33 Acrylonitrile	53		4.617				ND	
34 trans-1,2-Dichloroethene	96		4.647				ND	
35 Methyl tert-butyl ether	73		4.659				ND	
37 1,1-Dichloroethane	63		5.267				ND	
45 cis-1,2-Dichloroethene	96		6.009				ND	
46 2-Butanone (MEK)	43		6.027				ND	
49 Chlorobromomethane	128		6.295				ND	
52 Chloroform	83	6.431	6.441	-0.010	25	2805	0.5973	
53 1,1,1-Trichloroethane	97		6.593				ND	
56 Carbon tetrachloride	117		6.769				ND	
58 Benzene	78		7.000				ND	
59 1,2-Dichloroethane	62		7.073				ND	
64 Trichloroethene	130		7.724				ND	
67 1,2-Dichloropropane	63		7.998				ND	
70 1,4-Dioxane	88		8.077				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.278				ND	
74 cis-1,3-Dichloropropene	75		8.721				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.880				ND	
76 Toluene	91	9.052	9.050	0.002	64	6184	0.5399	
77 trans-1,3-Dichloropropene	75		9.299				ND	
79 1,1,2-Trichloroethane	97		9.488				ND	
80 Tetrachloroethene	164		9.561				ND	
82 2-Hexanone	43		9.707				ND	
84 Chlorodibromomethane	129		9.859				ND	
85 Ethylene Dibromide	107		9.974				ND	
87 Chlorobenzene	112		10.461				ND	
89 1,1,1,2-Tetrachloroethane	131		10.552				ND	
90 Ethylbenzene	106		10.558				ND	
91 m-Xylene & p-Xylene	106		10.692				ND	
92 o-Xylene	106		11.075				ND	
93 Styrene	104		11.093				ND	
94 Bromoform	173		11.276				ND	
99 1,1,2,2-Tetrachloroethane	83		11.750				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D12.D

Injection Date: 12-Nov-2017 21:42:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: 180-72047-B-5

Lab Sample ID: 180-72047-5

Worklist Smp#: 12

Client ID: HD-QC8-0/1-2

Purge Vol: 5.000 mL

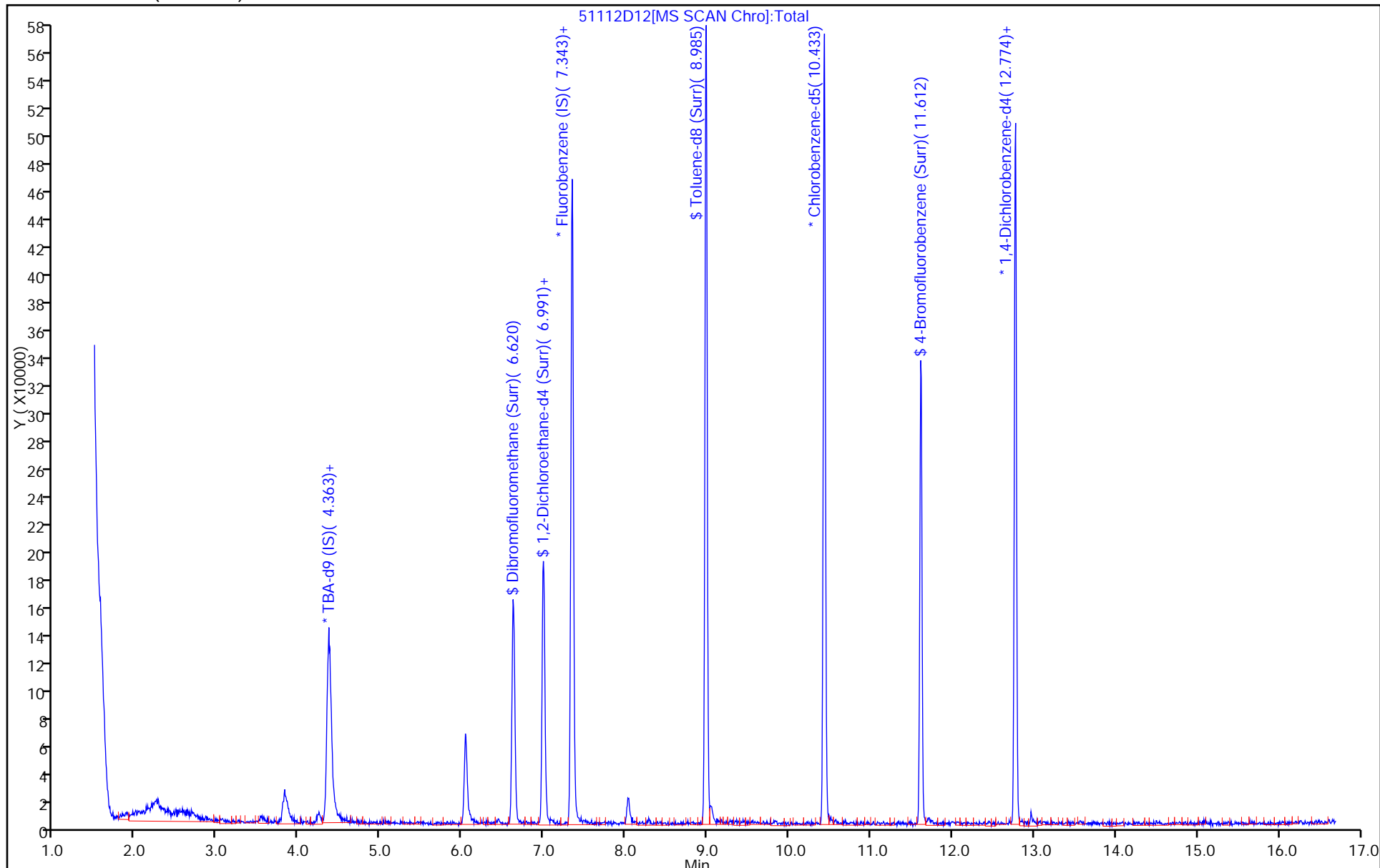
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D12.D
 Lims ID: 180-72047-B-5
 Client ID: HD-QC8-0/1-2
 Sample Type: Client
 Inject. Date: 12-Nov-2017 21:42:30 ALS Bottle#: 12 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-012
 Misc. Info.: 180-72047-B-5
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf

Date: 13-Nov-2017 20:44:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	54.5	109.06
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.6	111.27
\$ 7 Toluene-d8 (Surr)	50.0	44.9	89.73
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.6	83.16

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	0.3199 0.2630	0.2998 0.2481	0.2623 0.2360	0.2668	0.2713	Ave		0.2709		0.1000	10.0		20.0				
Chloromethane	0.5339 0.4231	0.4749 0.3901	0.4294 0.4063	0.4064	0.3994	Ave		0.4329		0.1000	11.2		20.0				
Vinyl chloride	0.3765 0.3484	0.3684 0.3223	0.3458 0.3349	0.3335	0.3366	Ave		0.3458		0.1000	5.3		20.0				
1,3-Butadiene	1.1481 0.2943	0.4022 0.2571	0.3212 0.2848	0.3203	0.3123	Lin2	4.4543	0.2516		0.0100				0.9940		0.9900	
Bromomethane	0.3406 0.1762	0.2260 0.1546	0.2007 ++++	0.1888	0.1946	Lin2	0.8402	0.1764		0.0500				0.9930		0.9900	
Chloroethane	0.3550 0.1960	0.2458 0.1882	0.2070 0.1750	0.2006	0.1880	Lin2	0.8604	0.1874		0.0500				0.9950		0.9900	
Trichlorofluoromethane	0.3439 0.3722	0.3730 0.3434	0.3694 0.3079	0.2877	0.3301	Ave		0.3410		0.1000	9.2		20.0				
Ethyl ether	0.3423 0.3452	0.3621 0.3312	0.3148 ++++	0.3184	0.2816	Ave		0.3279		0.0100	8.0		20.0				
Acrolein	0.0829 0.1252	0.1083 0.1156	0.0948 ++++	0.1045	0.1002	Ave		0.1045		0.0100	13.2		20.0				
1,1-Dichloroethene	0.3303 0.3241	0.3161 0.3180	0.2633 0.2587	0.2644	0.2656	Ave		0.2926		0.1000	10.9		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2013 0.2811	0.2506 0.2531	0.1991 0.2259	0.2482	0.2756	Ave		0.2418		0.1000	12.7		20.0				
Acetone	0.1502 0.2014	0.2734 0.1791	0.2794 0.1664	0.2182	0.2327	Qua	-0.832	0.2768	-0.000222	0.0500				0.9940		0.9900	
Iodomethane	0.4235 0.4696	0.4264 0.4504	0.4431 0.4074	0.4064	0.4394	Ave		0.4333		0.0100	5.0		20.0				
Carbon disulfide	0.8149 0.8297	0.9161 0.8014	0.8217 0.7057	0.7875	0.7932	Ave		0.8088		0.1000	7.2		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Allyl chloride	0.2674 0.2459	0.2482 0.2521	0.2335 0.2294	0.2363	0.2311	Ave		0.2430			0.0100	5.3	20.0				
Methyl acetate	0.3574 0.3967	0.3868 0.4084	0.3831 0.3758	0.3517	0.3810	Ave		0.3801			0.1000	4.9	20.0				
Methylene Chloride	0.4086 0.3645	0.3541 0.3302	0.3495 0.3370	0.3082	0.3412	Ave		0.3492			0.1000	8.4	20.0				
tert-Butyl alcohol	1.2627 1.1711	1.2607 1.0667	1.2602 1.4216	1.1226	1.4152	Ave		1.2476			0.0100	10.2	20.0				
Acrylonitrile	0.1650 0.1859	0.1818 0.1700	0.1809 0.1747	0.1672	0.1781	Ave		0.1755			0.0100	4.3	20.0				
trans-1,2-Dichloroethene	0.4184 0.3463	0.3732 0.3084	0.3407 0.3166	0.3201	0.3338	Ave		0.3447			0.1000	10.5	20.0				
Methyl tert-butyl ether	1.0210 1.0868	1.1000 0.9915	1.0279 1.0229	0.9741	1.0517	Ave		1.0345			0.1000	4.2	20.0				
Hexane	0.7850 0.6099	0.6373 0.5236	0.5869 0.5421	0.5725	0.5884	Ave		0.6057			0.0100	13.3	20.0				
1,1-Dichloroethane	0.7190 0.6721	0.6657 0.6612	0.6329 0.6194	0.6025	0.6387	Ave		0.6514			0.2000	5.6	20.0				
Vinyl acetate	1.1098 0.9976	0.9568 0.9558	0.9133 0.9096	0.8775	0.8833	Ave		0.9505			0.0100	8.0	20.0				
2,2-Dichloropropane	0.0831 0.0896	0.1033 0.0829	0.0939 0.0757	0.0843	0.0850	Ave		0.0872			0.0100	9.6	20.0				
cis-1,2-Dichloroethene	0.4111 0.4015	0.3956 0.3809	0.3781 0.3751	0.3527	0.3749	Ave		0.3837			0.1000	4.8	20.0				
2-Butanone (MEK)	0.3335 0.3082	0.3892 0.2838	0.3832 0.2898	0.3056	0.3128	Ave		0.3258			0.0500	12.3	20.0				
Chlorobromomethane	0.1984 0.1762	0.1752 0.1694	0.1575 0.1641	0.1560	0.1579	Ave		0.1693			0.0100	8.3	20.0				
Tetrahydrofuran	0.2575 0.1715	0.1851 0.1646	0.1720 0.1593	0.1491	0.1639	Lin2	0.9851	0.1595			0.0100			0.9970		0.9900	
Chloroform	0.7032 0.5810	0.5892 0.5622	0.5593 0.5467	0.5219	0.5584	Ave		0.5777			0.2000	9.5	20.0				
1,1,1-Trichloroethane	0.5697 0.4711	0.5215 0.4342	0.4617 0.4180	0.4264	0.4434	Ave		0.4683			0.1000	11.2	20.0				
Cyclohexane	0.7676 0.7103	0.6962 0.6793	0.7164 0.6507	0.6544	0.7027	Ave		0.6972			0.1000	5.4	20.0				
Carbon tetrachloride	0.5294 0.4090	0.4138 0.3904	0.4041 0.3690	0.3791	0.3979	Ave		0.4116			0.1000	12.1	20.0				
1,1-Dichloropropene	0.5825 0.4986	0.5252 0.4741	0.4777 0.4463	0.4533	0.4801	Ave		0.4922			0.0100	9.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Isobutyl alcohol	0.0171 0.0183	0.0174 0.0171	0.0189 0.0165	0.0158	0.0175	Ave		0.0173		0.0100	5.6		20.0				
Benzene	1.6631 1.4390	1.5231 1.3858	1.4309 1.3143	1.3399	1.4060	Ave		1.4378		0.5000	7.7		20.0				
1,2-Dichloroethane	0.5247 0.4906	0.4855 0.4806	0.4505 0.4623	0.4307	0.4602	Ave		0.4731		0.1000	6.1		20.0				
n-Heptane	0.7069 0.5509	0.6041 0.5078	0.5263 0.4811	0.5165	0.5237	Ave		0.5522		0.0100	13.1		20.0				
Trichloroethene	0.3778 0.3653	0.3716 0.3449	0.3469 0.3351	0.3246	0.3495	Ave		0.3520		0.2000	5.2		20.0				
Methylcyclohexane	0.7275 0.6000	0.6392 0.5613	0.5846 0.5347	0.5626	0.5798	Ave		0.5987		0.1000	10.1		20.0				
1,2-Dichloropropane	0.4765 0.4004	0.4023 0.3975	0.3837 0.3837	0.3651	0.3888	Ave		0.3997		0.1000	8.3		20.0				
Dibromomethane	0.2531 0.2068	0.2082 0.2043	0.1974 0.1991	0.1836	0.1978	Ave		0.2063		0.0100	9.9		20.0				
1,4-Dioxane	0.0031 0.0040	0.0035 0.0040	0.0042 0.0038	0.0033	0.0039	Ave		0.0037	*	0.0100	10.4		20.0				
Dichlorobromomethane	0.4955 0.4516	0.4551 0.4423	0.4196 0.4177	0.4023	0.4154	Ave		0.4374		0.2000	6.9		20.0				
2-Chloroethyl vinyl ether	0.2660 0.2815	0.2789 0.2738	0.2757 0.2564	0.2501	0.2686	Ave		0.2689		0.0100	4.1		20.0				
cis-1,3-Dichloropropene	0.6488 0.6086	0.5805 0.5908	0.5708 0.5642	0.5405	0.5731	Ave		0.5847		0.2000	5.6		20.0				
4-Methyl-2-pentanone (MIBK)	2.4558 2.1071	2.4778 1.9046	2.4271 1.8398	2.1286	2.0777	Ave		2.1773		0.1000	11.5		20.0				
Toluene	7.3026 5.5445	6.5909 4.9431	6.1686 4.7522	5.6784	5.6514	Ave		5.8290		0.4000	14.4		20.0				
trans-1,3-Dichloropropene	2.3305 1.9502	2.0996 1.7965	2.0604 1.7476	1.8833	1.9320	Ave		1.9750		0.1000	9.4		20.0				
Ethyl methacrylate	2.4071 2.0664	2.2720 1.8833	2.2251 1.8377	2.0383	2.0575	Ave		2.0984		0.0100	9.2		20.0				
1,1,2-Trichloroethane	1.4077 1.1566	1.2736 1.0555	1.2268 1.0313	1.1158	1.1529	Ave		1.1775		0.1000	10.4		20.0				
Tetrachloroethene	1.2740 1.0928	1.2174 0.9795	1.1964 0.9543	1.1115	1.0919	Ave		1.1147		0.2000	10.0		20.0				
1,3-Dichloropropane	2.3403 2.0434	2.1972 1.8935	2.1730 1.8781	1.9972	2.0815	Ave		2.0755		0.0100	7.6		20.0				
2-Hexanone	1.7578 1.6139	2.0527 1.4084	2.1198 1.4320	1.7503	1.6920	Ave		1.7284		0.1000	14.9		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Chlorodibromomethane	1.3730	1.1788	1.1624	1.0909	1.1040	Ave		1.1414			0.1000	9.4	20.0				
	1.1411	1.0456	1.0356														
1,2-Dibromoethane	1.4318	1.2552	1.2115	1.0825	1.1373	Ave		1.1666			0.1000	11.2	20.0				
	1.1267	1.0486	1.0395														
3-Chlorobenzotrifluoride	2.2850	1.9284	2.0680	1.9964	2.0315	Ave		1.9942			0.0100	7.9	20.0				
	2.0264	1.8654	1.7526														
Chlorobenzene	4.5344	4.0390	3.9030	3.5698	3.5746	Ave		3.7064			0.5000	11.9	20.0				
	3.5864	3.2619	3.1817														
4-Chlorobenzotrifluoride	2.1870	1.8567	2.0112	1.8983	1.9288	Ave		1.9058			0.0100	8.1	20.0				
	1.9268	1.7683	1.6689														
1,1,1,2-Tetrachloroethane	1.4530	1.3644	1.2928	1.2293	1.2374	Ave		1.2600			0.0100	8.7	20.0				
	1.2426	1.1374	1.1227														
Ethylbenzene	2.4460	2.2844	2.1402	1.9780	1.9756	Ave		2.0449			0.1000	11.6	20.0				
	1.9988	1.7778	1.7581														
m-Xylene & p-Xylene	2.8416	2.7882	2.6228	2.4302	2.4516	Ave		2.5067			0.1000	9.2	20.0				
	2.4689	2.2350	2.2152														
o-Xylene	2.9758	2.7268	2.6092	2.3740	2.3806	Ave		2.4659			0.3000	11.8	20.0				
	2.3892	2.1471	2.1248														
Styrene	5.1502	4.5968	4.4042	4.0041	4.0665	Ave		4.1957			0.3000	12.1	20.0				
	4.0537	3.6854	3.6046														
Bromoform	0.9137	0.8794	0.8496	0.7575	0.7859	Ave		0.8110			0.1000	7.9	20.0				
	0.8120	0.7544	0.7358														
2-Chlorobenzotrifluoride	2.2731	2.0142	2.1312	1.9507	2.0083	Ave		1.9964			0.0100	8.1	20.0				
	2.0122	1.8184	1.7634														
Isopropylbenzene	7.5309	6.7921	6.4126	5.9295	5.9119	Ave		6.0491			0.1000	14.1	20.0				
	5.7370	5.1136	4.9650														
1,1,2,2-Tetrachloroethane	1.7904	1.7612	1.7754	1.4840	1.6093	Ave		1.6039			0.3000	9.6	20.0				
	1.5508	1.4525	1.4079														
Bromobenzene	1.1871	1.0774	1.0602	0.9857	1.0297	Ave		1.0470			0.0100	6.3	20.0				
	1.0370	1.0268	0.9720														
trans-1,4-Dichloro-2-butene	0.4791	0.4184	0.3948	0.3919	0.4105	Ave		0.4146			0.0100	7.0	20.0				
	0.4218	0.4140	0.3865														
1,2,3-Trichloropropane	0.4961	0.3625	0.3613	0.3503	0.3634	Lin2	0.7406	0.3459			0.0100			0.9990		0.9900	
	0.3592	0.3546	0.3402														
N-Propylbenzene	1.4987	1.2959	1.2109	1.1592	1.1887	Ave		1.2251			0.0100	10.1	20.0				
	1.1938	1.1525	1.1012														
2-Chlorotoluene	1.2394	1.1046	1.0145	0.9686	0.9937	Ave		1.0339			0.0100	9.3	20.0				
	1.0187	0.9971	0.9347														
3-Chlorotoluene	1.3182	1.0961	1.1052	1.0455	1.1344	Ave		1.1134			0.0100	8.2	20.0				
	1.1030	1.0915	1.0134														

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	4.3224 3.3609	3.8549 3.2632	3.5089 3.0428	3.3101	3.4291	Ave		3.5116			0.0100	11.4	20.0				
4-Chlorotoluene	1.2392 1.0946	1.1154 1.0496	1.0789 0.9974	1.0063	1.0297	Ave		1.0764			0.0100	7.2	20.0				
tert-Butylbenzene	3.9099 2.9167	3.2971 2.7996	3.0049 2.6126	2.8637	2.9496	Ave		3.0443			0.0100	13.1	20.0				
1,2,4-Trimethylbenzene	4.1588 3.4251	3.8782 3.3156	3.5916 3.1572	3.4230	3.5131	Ave		3.5578			0.0100	9.0	20.0				
3,4-Dichlorobenzotrifluoride	1.2210 1.0725	1.0292 1.0646	1.0277 0.9722	1.0422	1.0931	Ave		1.0653			0.0100	6.8	20.0				
sec-Butylbenzene	5.1843 3.9631	4.5180 3.7590	4.1605 3.5239	3.9708	4.0398	Ave		4.1399			0.0100	12.3	20.0				
1,3-Dichlorobenzene	2.2219 1.9195	2.0321 1.8789	1.9198 1.7872	1.8388	1.9058	Ave		1.9380			0.6000	7.0	20.0				
4-Isopropyltoluene	4.3477 3.4245	3.9082 3.2755	3.5910 3.0606	3.3943	3.5123	Ave		3.5643			0.0100	11.2	20.0				
1,4-Dichlorobenzene	2.4647 1.9410	2.0770 1.9276	1.9341 1.8210	1.8496	1.9407	Ave		1.9945			0.5000	10.3	20.0				
2,4-Dichlorobenzotrifluoride	1.1709 1.0021	0.9745 1.0124	0.9646 0.9384	0.9242	0.9808	Ave		0.9960			0.0100	7.7	20.0				
2,5-Dichlorobenzotrifluoride	1.1908 1.1134	1.0529 1.1140	1.1150 1.0288	1.1002	1.1669	Ave		1.1103			0.0100	4.8	20.0				
n-Butylbenzene	3.7433 2.9558	3.3120 2.8136	3.0832 2.6450	2.8947	2.9889	Ave		3.0546			0.0100	11.1	20.0				
1,2-Dichlorobenzene	2.1091 1.7777	1.8880 1.7602	1.8346 1.6965	1.6810	1.8187	Ave		1.8207			0.4000	7.4	20.0				
1,2-Dibromo-3-Chloropropane	0.4443 0.2406	0.2896 0.2431	0.2508 0.2272	0.2204	0.2445	Lin2	1.0832	0.2297			0.0500			0.9970		0.9900	
2,4- & 2,5- & 2,6- Dichlorotoluene	1.5315 1.2852	1.3266 1.2695	1.3666 1.2213	1.2547	1.3495	Ave		1.3256			0.0100	7.3	20.0				
2,3- & 3,4- Dichlorotoluene	1.6014 1.3728	1.4000 1.3470	1.4444 1.3238	1.2829	1.4149	Ave		1.3984			0.0100	6.9	20.0				
1,2,4-Trichlorobenzene	1.1876 1.0187	1.0450 1.0129	1.0547 1.0276	0.9306	1.0052	Ave		1.0353			0.2000	7.0	20.0				
Hexachlorobutadiene	0.5652 0.4450	0.4858 0.4183	0.4605 0.4239	0.4191	0.4429	Ave		0.4576			0.0100	10.7	20.0				
Naphthalene	3.5330 3.1945	3.3450 3.1455	3.5436 3.1415	2.9913	3.2803	Ave		3.2718			0.0100	5.9	20.0				
1,2,3-Trichlorobenzene	1.0464 0.9499	0.9770 0.9420	1.0045 0.9807	0.8498	0.9396	Ave		0.9612			0.0100	6.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.6574 0.5725	0.5797 0.5705	0.6475 0.5934	0.5310	0.6050	Ave		0.5946			0.0100	7.0	20.0				
2,3,6-Trichlorotoluene	0.6386 0.5150	0.5565 0.5187	0.5746 0.5306	0.4758	0.5243	Ave		0.5418			0.0100	9.0	20.0				
Dibromofluoromethane (Surr)	0.2634 0.2710	0.2611 0.2606	0.2576 0.2538	0.2314	0.2465	Ave		0.2557				4.7	20.0				
1,2-Dichloroethane-d4 (Surr)	0.4074 0.3671	0.3594 0.3508	0.3527 0.3374	0.3161	0.3288	Ave		0.3525				7.9	20.0				
Toluene-d8 (Surr)	4.6005 3.9268	4.3324 3.5047	4.4344 3.4690	3.9285	3.8139	Ave		4.0013				10.5	20.0				
4-Bromofluorobenzene (Surr)	1.6759 1.6165	1.7074 1.4632	1.7129 1.4631	1.5340	1.5309	Ave		1.5880				6.5	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	11360 288265	48819 320286	90064 383674	146171	190995	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	18956 463847	77319 503528	147443 660580	222659	281148	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	13367 381880	59985 416057	118745 544552	182711	236967	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Lin2	40764 322594	65480 331808	110274 463060	175484	219867	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Lin2	12095 193127	36804 199546	68918 +++++	103436	137007	5.00 175	25.0 200	50.0 +++++	75.0	100
Chloroethane	FB	Lin2	12605 214850	40020 242959	71071 284483	109878	132369	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	12211 407996	60735 443285	126846 500610	157636	232367	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	12154 378438	58960 427535	108085 +++++	174419	198208	5.00 175	25.0 200	50.0 +++++	75.0	100
Acrolein	FB	Ave	58864 176433	88139 186572	97603 +++++	133597	141135	100 225	125 250	150 +++++	175	200
1,1-Dichloroethene	FB	Ave	11729 355274	51467 410531	90421 420571	144859	186952	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	7147 308123	40795 326722	68361 367239	135965	194019	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Qua	26673 441614	89042 462297	191862 540944	239078	327588	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	15037 514836	69421 581438	152131 662319	222629	309287	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	28932 909550	149164 1034498	282135 1147403	431464	558362	5.00 175	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	9494 269538	40410 325365	80183 373044	129444	162702	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	25380 869695	125959 1054265	263099 1222074	385350	536456	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Ave	14508 399535	57651 426256	120006 547979	168850	240190	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd 9	Ave	10951 504751	59104 469244	167444 800812	223746	279075	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	58589 2037753	296073 2193876	621223 2839818	916220	1254097	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	14857 379604	60758 398038	116991 514686	175351	235005	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	36251 1191395	179109 1279855	352917 1662995	533673	740346	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	27872 668602	103760 675938	201514 881434	313674	414201	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	25529 736757	108391 853476	217303 1006985	330111	449645	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	39405 1093622	155793 1233778	313586 1478910	480729	621774	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	2952 98205	16827 106967	32248 123055	46205	59858	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	14596 440120	64409 491702	129830 609918	193227	263920	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	59203 675747	126726 732742	263149 942332	334832	440384	25.0 350	50.0 400	100 500	150	200
Chlorobromomethane	FB	Ave	7043 193171	28527 218627	54076 266776	85492	111165	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Lin2	18282 375950	60280 424882	118128 517849	163375	230737	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	24968 636895	95932 725704	192042 888887	285922	393090	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20227 516491	84914 560443	158536 679603	233627	312138	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	27256 778625	113357 876870	245975 1057958	358503	494683	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	18796 448401	67382 503927	138765 600003	207671	280114	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	20683 546560	85510 612031	164019 725621	248344	338006	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	15152 500943	71001 553306	162229 670610	215962	308653	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	59050 1577529	247989 1788795	491290 2136842	734073	989799	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	18629 537767	79055 620368	154690 751563	235973	323970	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	25099 603889	98365 655443	180722 782163	282966	368639	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	13413 400484	60499 445239	119100 544845	177850	246005	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25831 657704	104066 724486	200723 869390	308209	408182	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16918 438885	65502 513159	131736 623779	200014	273710	5.00 175	25.0 200	50.0 250	75.0	100
Dibromomethane	FB	Ave	8987 226707	33894 263730	67786 323707	100567	139250	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2229 88641	11481 104236	28838 125075	35832	54731	100 3500	500 4000	1000 5000	1500	2000
Dichlorobromomethane	FB	Ave	17592 495018	74099 570917	144075 679054	220386	292391	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18887 617167	90813 706913	189337 833749	274054	378146	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	23035 667160	94517 762600	195974 917359	296141	403451	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	108520 1277910	201052 1449023	408149 1715061	585317	771359	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	64538 1681283	267398 1880344	518665 2215068	780737	1049056	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	20596 591362	85181 683392	173242 814568	258935	358629	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	21273 626604	92176 716406	187087 856567	280255	381934	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	12441 350713	51670 401520	103149 480707	153411	214004	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	11259 331372	49391 372604	100597 444805	152819	202692	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	20683 619625	89143 720290	182710 875399	274592	386392	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	77674 978798	166556 1071544	356470 1334896	481301	628179	25.0 350	50.0 400	100 500	150	200
Chlorodibromomethane	CBNZ d5	Ave	12134 346026	47826 397752	97738 482702	149990	204939	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane	CBNZ d5	Ave	12654 341661	50923 398884	101860 484529	148835	211108	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	20194 614470	78236 709603	173880 816927	274484	377102	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	40074 1087528	163865 1240825	328169 1483014	490822	663544	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	19328 584269	75328 672658	169101 777912	260997	358041	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12841 376787	55355 432680	108701 523309	169025	229696	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	21617 606102	92680 676281	179947 819458	271964	366730	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25113 748663	113117 850193	220525 1032506	334134	455089	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	26299 724488	110628 816773	219383 990376	326410	441909	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	45516 1229204	186493 1401938	370310 1680161	550534	754852	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	8075 246235	35678 286980	71432 342951	104149	145882	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	20089 610154	81717 691733	179192 821958	268204	372804	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	66556 1739655	275560 1945195	539180 2314258	815253	1097412	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	15823 470241	71451 552518	149279 656224	204042	298732	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	14390 437254	62935 504414	132180 616854	192570	266448	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	5807 177867	24438 203354	49225 245313	76568	106219	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Lin2	6014 151444	21177 174213	45049 215879	68430	94031	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	18166 503370	75699 566124	150964 698892	226484	307590	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	15023 429562	64522 489826	126477 593228	189243	257123	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	15979 465106	64028 536156	137789 643177	204267	293533	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	52394 1417182	225181 1602983	437477 1931146	646696	887312	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	15021 461546	65156 515598	134516 633000	196596	266448	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	47394 1229844	192596 1375238	374641 1658088	559488	763225	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50411 1444257	226542 1628727	447784 2003753	668751	909030	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	14800 452248	60123 522959	128125 617023	203613	282839	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	62841 1671080	263915 1846550	518713 2236454	775789	1045329	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	26933 809393	118704 922963	239355 1134229	359242	493151	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	52701 1443989	228298 1609019	447713 1942455	663144	908837	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	29876 818434	121326 946901	241133 1155724	361359	502172	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	14193 422533	56924 497310	120263 595571	180562	253790	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	14434 469476	61504 547248	139012 652964	214948	301944	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	45375 1246354	193470 1382118	384393 1678668	565547	773393	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	25566 749586	110285 864638	228728 1076711	328411	470610	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Lin2	5385 101450	16918 119400	31264 144187	43060	63264	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	55694 1625773	232473 1870903	511161 2325266	735393	1047544	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	38823 1157680	163558 1323377	360161 1680279	501273	732216	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	14395 429547	61041 497586	131499 652178	181806	260096	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	6851 187630	28379 205503	57408 269040	81879	114595	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	42825 1347013	195394 1545157	441802 1993798	584418	848811	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	12684 400531	57072 462732	125237 622398	166025	243122	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	7969 241394	33861 280260	80722 376576	103751	156547	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	7741 217169	32510 254778	71633 336770	92963	135667	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9352 297108	42506 336435	88453 412655	126785	173538	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	14465 402465	58513 452860	121114 548631	173185	231495	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	40658 1190748	175766 1333199	372845 1616941	540141	707972	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	14811 490170	69269 556606	144024 681987	210916	284175	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-213537/2	50608D02.D
Level 2	IC 180-213537/3	50608D03.D
Level 3	ICIS 180-213537/4	50608D04.D
Level 4	IC 180-213537/5	50608D05.D
Level 5	IC 180-213537/6	50608D06.D
Level 6	IC 180-213537/7	50608D07.D
Level 7	IC 180-213537/8	50608D08.D
Level 8	IC 180-213537/9	50608D09.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Dichlorodifluoromethane	18.1 -8.4	10.7 -12.9	-3.2	-1.5	0.1	-2.9	50 30	30 30	30	30	30	30
Chloromethane	23.3 -9.9	9.7 -6.2	-0.8	-6.1	-7.8	-2.3	50 30	30 30	30	30	30	30
Vinyl chloride	8.9 -6.8	6.5 -3.1	0.0	-3.6	-2.7	0.7	50 30	30 30	30	30	30	30
1,3-Butadiene	2.2 -6.7	-11.0 6.1	-7.7	3.7	6.4	6.9	50 30	30 30	30	30	30	30
Bromomethane	-2.1 -14.7	9.1 ++++	4.3	0.7	5.6	-2.8	50 30	30	30	30	30	30
Chloroethane	-2.4 -1.9	12.8 -8.5	1.3	0.9	-4.2	2.0	50 30	30 30	30	30	30	30
Trichlorofluoromethane	0.9 0.7	9.4 -9.7	8.4	-15.6	-3.2	9.2	50 30	30 30	30	30	30	30
Ethyl ether	4.4 1.0	10.4 ++++	-4.0	-2.9	-14.1	5.3	50 30	30	30	30	30	30
Acrolein	-20.7 10.7	3.6 ++++	-9.3	0.0	-4.1	19.8	50 30	30	30	30	30	30
1,1-Dichloroethene	12.9 8.7	8.0 -11.6	-10.0	-9.6	-9.2	10.8	50 30	30 30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	-16.8 4.7	3.6 -6.6	-17.7	2.6	14.0	16.2	50 30	30 30	30	30	30	30
Acetone	-32.8 -6.7	9.6 4.0	14.4	-9.3	2.3	3.8	50 30	30 30	30	30	30	30
Iodomethane	-2.3 4.0	-1.6 -6.0	2.3	-6.2	1.4	8.4	50 30	30 30	30	30	30	30
Carbon disulfide	0.8 -0.9	13.3 -12.7	1.6	-2.6	-1.9	2.6	50 30	30 30	30	30	30	30
Allyl chloride	10.0 3.7	2.1 -5.6	-3.9	-2.8	-4.9	1.2	50 30	30 30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methyl acetate	-6.0	1.8	0.8	-7.5	0.2	4.4	50	30	30	30	30	30
	7.4	-1.1					30	30				
Methylene Chloride	17.0	1.4	0.1	-11.7	-2.3	4.4	50	30	30	30	30	30
	-5.4	-3.5					30	30				
tert-Butyl alcohol	1.2	1.1	1.0	-10.0	13.4	-6.1	50	30	30	30	30	30
	-14.5	13.9					30	30				
Acrylonitrile	-6.0	3.6	3.1	-4.7	1.5	5.9	50	30	30	30	30	30
	-3.1	-0.5					30	30				
trans-1,2-Dichloroethene	21.4	8.3	-1.1	-7.1	-3.1	0.5	50	30	30	30	30	30
	-10.5	-8.2					30	30				
Methyl tert-butyl ether	-1.3	6.3	-0.6	-5.8	1.7	5.1	50	30	30	30	30	30
	-4.2	-1.1					30	30				
Hexane	29.6	5.2	-3.1	-5.5	-2.9	0.7	50	30	30	30	30	30
	-13.5	-10.5					30	30				
1,1-Dichloroethane	10.4	2.2	-2.8	-7.5	-1.9	3.2	50	30	30	30	30	30
	1.5	-4.9					30	30				
Vinyl acetate	16.8	0.7	-3.9	-7.7	-7.1	5.0	50	30	30	30	30	30
	0.6	-4.3					30	30				
2,2-Dichloropropane	-4.7	18.5	7.7	-3.3	-2.5	2.7	50	30	30	30	30	30
	-5.0	-13.2					30	30				
cis-1,2-Dichloroethene	7.1	3.1	-1.5	-8.1	-2.3	4.6	50	30	30	30	30	30
	-0.7	-2.2					30	30				
2-Butanone (MEK)	2.4	19.5	17.6	-6.2	-4.0	-5.4	50	30	30	30	30	30
	-12.9	-11.0					30	30				
Chlorobromomethane	17.1	3.5	-7.0	-7.8	-6.7	4.1	50	30	30	30	30	30
	0.0	-3.1					30	30				
Tetrahydrofuran	-0.4	3.7	1.7	-10.6	-0.3	5.7	50	30	30	30	30	30
	1.6	-1.4					30	30				
Chloroform	21.7	2.0	-3.2	-9.7	-3.3	0.6	50	30	30	30	30	30
	-2.7	-5.4					30	30				
1,1,1-Trichloroethane	21.7	11.4	-1.4	-8.9	-5.3	0.6	50	30	30	30	30	30
	-7.3	-10.7					30	30				
Cyclohexane	10.1	-0.1	2.8	-6.1	0.8	1.9	50	30	30	30	30	30
	-2.6	-6.7					30	30				
Carbon tetrachloride	28.6	0.5	-1.8	-7.9	-3.3	-0.6	50	30	30	30	30	30
	-5.2	-10.3					30	30				
1,1-Dichloropropene	18.3	6.7	-3.0	-7.9	-2.5	1.3	50	30	30	30	30	30
	-3.7	-9.3					30	30				
Isobutyl alcohol	-1.5	0.7	9.1	-9.0	1.2	5.5	50	30	30	30	30	30
	-1.1	-4.8					30	30				
Benzene	15.7	5.9	-0.5	-6.8	-2.2	0.1	50	30	30	30	30	30
	-3.6	-8.6					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
1,2-Dichloroethane	10.9	2.6	-4.8	-9.0	-2.7	3.7	50	30	30	30	30	30
	1.6	-2.3					30	30				
n-Heptane	28.0	9.4	-4.7	-6.5	-5.2	-0.2	50	30	30	30	30	30
	-8.0	-12.9					30	30				
Trichloroethene	7.3	5.6	-1.4	-7.8	-0.7	3.8	50	30	30	30	30	30
	-2.0	-4.8					30	30				
Methylcyclohexane	21.5	6.8	-2.4	-6.0	-3.2	0.2	50	30	30	30	30	30
	-6.3	-10.7					30	30				
1,2-Dichloropropane	19.2	0.6	-4.0	-8.7	-2.7	0.2	50	30	30	30	30	30
	-0.5	-4.0					30	30				
Dibromomethane	22.7	0.9	-4.3	-11.0	-4.1	0.3	50	30	30	30	30	30
	-1.0	-3.5					30	30				
1,4-Dioxane	-16.2	-5.8	12.2	-12.6	3.8	8.0	50	30	30	30	30	30
	7.9	2.7					30	30				
Dichlorobromomethane	13.3	4.0	-4.1	-8.0	-5.0	3.2	50	30	30	30	30	30
	1.1	-4.5					30	30				
2-Chloroethyl vinyl ether	-1.1	3.7	2.5	-7.0	-0.1	4.7	50	30	30	30	30	30
	1.8	-4.6					30	30				
cis-1,3-Dichloropropene	11.0	-0.7	-2.4	-7.5	-2.0	4.1	50	30	30	30	30	30
	1.0	-3.5					30	30				
4-Methyl-2-pentanone (MIBK)	12.8	13.8	11.5	-2.2	-4.6	-3.2	50	30	30	30	30	30
	-12.5	-15.5					30	30				
Toluene	25.3	13.1	5.8	-2.6	-3.0	-4.9	50	30	30	30	30	30
	-15.2	-18.5					30	30				
trans-1,3-Dichloropropene	18.0	6.3	4.3	-4.6	-2.2	-1.3	50	30	30	30	30	30
	-9.0	-11.5					30	30				
Ethyl methacrylate	14.7	8.3	6.0	-2.9	-1.9	-1.5	50	30	30	30	30	30
	-10.3	-12.4					30	30				
1,1,2-Trichloroethane	19.5	8.2	4.2	-5.2	-2.1	-1.8	50	30	30	30	30	30
	-10.4	-12.4					30	30				
Tetrachloroethene	14.3	9.2	7.3	-0.3	-2.0	-2.0	50	30	30	30	30	30
	-12.1	-14.4					30	30				
1,3-Dichloropropane	12.8	5.9	4.7	-3.8	0.3	-1.5	50	30	30	30	30	30
	-8.8	-9.5					30	30				
2-Hexanone	1.7	18.8	22.6	1.3	-2.1	-6.6	50	30	30	30	30	30
	-18.5	-17.1					30	30				
Chlorodibromomethane	20.3	3.3	1.8	-4.4	-3.3	0.0	50	30	30	30	30	30
	-8.4	-9.3					30	30				
1,2-Dibromoethane	22.7	7.6	3.8	-7.2	-2.5	-3.4	50	30	30	30	30	30
	-10.1	-10.9					30	30				
3-Chlorobenzotrifluoride	14.6	-3.3	3.7	0.1	1.9	1.6	50	30	30	30	30	30
	-6.5	-12.1					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Chlorobenzene	22.3 -12.0	9.0 -14.2	5.3	-3.7	-3.6	-3.2	50 30	30 30	30	30	30	30
4-Chlorobenzotrifluoride	14.8 -7.2	-2.6 -12.4	5.5	-0.4	1.2	1.1	50 30	30 30	30	30	30	30
1,1,1,2-Tetrachloroethane	15.3 -9.7	8.3 -10.9	2.6	-2.4	-1.8	-1.4	50 30	30 30	30	30	30	30
Ethylbenzene	19.6 -13.1	11.7 -14.0	4.7	-3.3	-3.4	-2.3	50 30	30 30	30	30	30	30
m-Xylene & p-Xylene	13.4 -10.8	11.2 -11.6	4.6	-3.1	-2.2	-1.5	50 30	30 30	30	30	30	30
o-Xylene	20.7 -12.9	10.6 -13.8	5.8	-3.7	-3.5	-3.1	50 30	30 30	30	30	30	30
Styrene	22.7 -12.2	9.6 -14.1	5.0	-4.6	-3.1	-3.4	50 30	30 30	30	30	30	30
Bromoform	12.7 -7.0	8.4 -9.3	4.8	-6.6	-3.1	0.1	50 30	30 30	30	30	30	30
2-Chlorobenzotrifluoride	13.9 -8.9	0.9 -11.7	6.7	-2.3	0.6	0.8	50 30	30 30	30	30	30	30
Isopropylbenzene	24.5 -15.5	12.3 -17.9	6.0	-2.0	-2.3	-5.2	50 30	30 30	30	30	30	30
1,1,2,2-Tetrachloroethane	11.6 -9.4	9.8 -12.2	10.7	-7.5	0.3	-3.3	50 30	30 30	30	30	30	30
Bromobenzene	13.4 -1.9	2.9 -7.2	1.3	-5.9	-1.6	-1.0	50 30	30 30	30	30	30	30
trans-1,4-Dichloro-2-butene	15.5 -0.2	0.9 -6.8	-4.8	-5.5	-1.0	1.7	50 30	30 30	30	30	30	30
1,2,3-Trichloropropane	0.6 1.5	-3.7 -2.5	0.2	-1.6	2.9	2.6	50 30	30 30	30	30	30	30
N-Propylbenzene	22.3 -5.9	5.8 -10.1	-1.2	-5.4	-3.0	-2.6	50 30	30 30	30	30	30	30
2-Chlorotoluene	19.9 -3.6	6.8 -9.6	-1.9	-6.3	-3.9	-1.5	50 30	30 30	30	30	30	30
3-Chlorotoluene	18.4 -2.0	-1.6 -9.0	-0.7	-6.1	1.9	-0.9	50 30	30 30	30	30	30	30
1,3,5-Trimethylbenzene	23.1 -7.1	9.8 -13.3	-0.1	-5.7	-2.3	-4.3	50 30	30 30	30	30	30	30
4-Chlorotoluene	15.1 -2.5	3.6 -7.3	0.2	-6.5	-4.3	1.7	50 30	30 30	30	30	30	30
tert-Butylbenzene	28.4 -8.0	8.3 -14.2	-1.3	-5.9	-3.1	-4.2	50 30	30 30	30	30	30	30
1,2,4-Trimethylbenzene	16.9 -6.8	9.0 -11.3	0.9	-3.8	-1.3	-3.7	50 30	30 30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03

Calibration End Date: 06/08/2017 08:59

Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
3,4-Dichlorobenzotrifluoride	14.6	-3.4	-3.5	-2.2	2.6	0.7	50	30	30	30	30	30
	-0.1	-8.7					30	30				
sec-Butylbenzene	25.2	9.1	0.5	-4.1	-2.4	-4.3	50	30	30	30	30	30
	-9.2	-14.9					30	30				
1,3-Dichlorobenzene	14.6	4.9	-0.9	-5.1	-1.7	-1.0	50	30	30	30	30	30
	-3.1	-7.8					30	30				
4-Isopropyltoluene	22.0	9.7	0.8	-4.8	-1.5	-3.9	50	30	30	30	30	30
	-8.1	-14.1					30	30				
1,4-Dichlorobenzene	23.6	4.1	-3.0	-7.3	-2.7	-2.7	50	30	30	30	30	30
	-3.4	-8.7					30	30				
2,4-Dichlorobenzotrifluoride	17.6	-2.2	-3.1	-7.2	-1.5	0.6	50	30	30	30	30	30
	1.6	-5.8					30	30				
2,5-Dichlorobenzotrifluoride	7.3	-5.2	0.4	-0.9	5.1	0.3	50	30	30	30	30	30
	0.3	-7.3					30	30				
n-Butylbenzene	22.5	8.4	0.9	-5.2	-2.2	-3.2	50	30	30	30	30	30
	-7.9	-13.4					30	30				
1,2-Dichlorobenzene	15.8	3.7	0.8	-7.7	-0.1	-2.4	50	30	30	30	30	30
	-3.3	-6.8					30	30				
1,2-Dibromo-3-Chloropropane	-0.9	7.2	-0.3	-10.3	1.7	2.1	50	30	30	30	30	30
	3.5	-3.0					30	30				
2,4- & 2,5- & 2,6- Dichlorotoluene	15.5	0.1	3.1	-5.4	1.8	-3.0	50	30	30	30	30	30
	-4.2	-7.9					30	30				
2,3- & 3,4- Dichlorotoluene	14.5	0.1	3.3	-8.3	1.2	-1.8	50	30	30	30	30	30
	-3.7	-5.3					30	30				
1,2,4-Trichlorobenzene	14.7	0.9	1.9	-10.1	-2.9	-1.6	50	30	30	30	30	30
	-2.2	-0.7					30	30				
Hexachlorobutadiene	23.5	6.2	0.6	-8.4	-3.2	-2.8	50	30	30	30	30	30
	-8.6	-7.4					30	30				
Naphthalene	8.0	2.2	8.3	-8.6	0.3	-2.4	50	30	30	30	30	30
	-3.9	-4.0					30	30				
1,2,3-Trichlorobenzene	8.9	1.6	4.5	-11.6	-2.3	-1.2	50	30	30	30	30	30
	-2.0	2.0					30	30				
2,4,5-Trichlorotoluene	10.6	-2.5	8.9	-10.7	1.7	-3.7	50	30	30	30	30	30
	-4.1	-0.2					30	30				
2,3,6-Trichlorotoluene	17.9	2.7	6.1	-12.2	-3.2	-4.9	50	30	30	30	30	30
	-4.3	-2.1					30	30				
Dibromofluoromethane (Surr)	3.0	2.1	0.8	-9.5	-3.6	6.0	50	30	30	30	30	30
	1.9	-0.7					30	30				
1,2-Dichloroethane-d4 (Surr)	15.6	2.0	0.1	-10.3	-6.7	4.2	50	30	30	30	30	30
	-0.5	-4.3					30	30				
Toluene-d8 (Surr)	15.0	8.3	10.8	-1.8	-4.7	-1.9	50	30	30	30	30	30
	-12.4	-13.3					30	30				

FORM VI
 GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 213537

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/08/2017 06:03 Calibration End Date: 06/08/2017 08:59 Calibration ID: 34799

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
4-Bromofluorobenzene (Surr)	5.5	7.5	7.9	-3.4	-3.6	1.8	50	30	30	30	30	30
	-7.9	-7.9					30	30				

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D
 Lims ID: IC VSTD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 08-Jun-2017 06:03:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-002
 Misc. Info.: IC VSTD1
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:51:55 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:26:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.342	4.335	0.007	0	173448	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.335	0.000	98	355058	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.438	10.431	0.007	88	88377	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.780	12.779	0.001	96	121215	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.611	6.613	-0.002	91	9352	5.00	5.15	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	7.110	-0.128	0	14465	5.00	5.78	
\$ 7 Toluene-d8 (Surr)	98	8.984	8.980	0.004	93	40658	5.00	5.75	
\$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.618	0.000	87	14811	5.00	5.28	
11 Dichlorodifluoromethane	85	1.629	1.619	0.010	74	11360	5.00	5.91	
12 Chloromethane	50	1.824	1.826	-0.002	63	18956	5.00	6.17	M
13 Vinyl chloride	62	1.933	1.947	-0.014	75	13367	5.00	5.44	
14 Butadiene	39	1.970	1.972	-0.002	61	40764	5.00	5.11	M
15 Bromomethane	94	2.347	2.318	0.029	40	12095	5.00	4.89	
16 Chloroethane	64	2.450	2.446	0.004	62	12605	5.00	4.88	
18 Trichlorofluoromethane	101	2.724	2.720	0.004	75	12211	5.00	5.04	
17 Dichlorofluoromethane	67	2.718	2.726	-0.008	84	36251	5.00	4.98	
20 Ethyl ether	59	3.119	3.109	0.010	91	12154	5.00	5.22	
21 Acrolein	56	3.296	3.304	-0.008	100	58864	100.0	79.3	
22 1,1-Dichloroethene	96	3.399	3.413	-0.014	73	11729	5.00	5.65	
23 1,1,2-Trichloro-1,2,2-trif	101	3.478	3.462	0.016	40	7147	5.00	4.16	
24 Acetone	43	3.509	3.511	-0.002	96	26673	25.0	16.8	
25 Iodomethane	142	3.612	3.602	0.010	94	15037	5.00	4.89	
26 Carbon disulfide	76	3.691	3.693	-0.002	96	28932	5.00	5.04	
28 3-Chloro-1-propene	76	3.995	3.991	0.004	92	9494	5.00	5.50	
30 Methyl acetate	43	4.020	4.022	-0.002	97	25380	10.0	9.40	
31 Methylene Chloride	84	4.220	4.216	0.004	81	14508	5.00	5.85	
32 2-Methyl-2-propanol	59	4.470	4.478	-0.008	55	10951	50.0	50.6	
33 Acrylonitrile	53	4.604	4.594	0.010	100	58589	50.0	47.0	
34 trans-1,2-Dichloroethene	96	4.622	4.630	-0.008	97	14857	5.00	6.07	
35 Methyl tert-butyl ether	73	4.640	4.648	-0.008	96	36251	5.00	4.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.042	5.044	-0.002	92	27872	5.00	6.48	
37 1,1-Dichloroethane	63	5.255	5.257	-0.002	96	25529	5.00	5.52	
38 Vinyl acetate	43	5.309	5.311	-0.002	97	39405	5.00	5.84	
44 2,2-Dichloropropane	97	5.997	5.999	-0.002	45	2952	5.00	4.77	
45 cis-1,2-Dichloroethene	96	5.997	6.005	-0.008	85	14596	5.00	5.36	
46 2-Butanone (MEK)	43	6.015	6.023	-0.008	99	59203	25.0	25.6	
49 Chlorobromomethane	128	6.289	6.279	0.010	93	7043	5.00	5.86	
51 Tetrahydrofuran	42	6.313	6.303	0.010	69	18282	10.0	9.96	
52 Chloroform	83	6.435	6.431	0.004	95	24968	5.00	6.09	
53 1,1,1-Trichloroethane	97	6.587	6.589	-0.002	97	20227	5.00	6.08	
54 Cyclohexane	56	6.660	6.656	0.004	91	27256	5.00	5.51	
56 Carbon tetrachloride	117	6.751	6.759	-0.008	92	18796	5.00	6.43	
55 1,1-Dichloropropene	75	6.769	6.777	-0.008	92	20683	5.00	5.92	
57 Isobutyl alcohol	41	6.976	6.978	-0.002	57	15152	125.0	123.1	
58 Benzene	78	6.988	6.990	-0.002	97	59050	5.00	5.78	
59 1,2-Dichloroethane	62	7.068	7.069	-0.001	96	18629	5.00	5.54	
62 n-Heptane	43	7.347	7.349	-0.002	44	25099	5.00	6.40	
64 Trichloroethene	130	7.718	7.720	-0.002	96	13413	5.00	5.37	
66 Methylcyclohexane	83	7.956	7.958	-0.002	92	25831	5.00	6.08	
67 1,2-Dichloropropane	63	7.992	7.994	-0.002	90	16918	5.00	5.96	
68 Dibromomethane	93	8.077	8.079	-0.002	88	8987	5.00	6.13	
70 1,4-Dioxane	88	8.096	8.085	0.011	45	2229	100.0	83.8	
71 Dichlorobromomethane	83	8.278	8.274	0.004	97	17592	5.00	5.66	
73 2-Chloroethyl vinyl ether	63	8.582	8.578	0.004	93	18887	10.0	9.89	
74 cis-1,3-Dichloropropene	75	8.716	8.718	-0.002	89	23035	5.00	5.55	
75 4-Methyl-2-pentanone (MIBK)	43	8.874	8.876	-0.002	98	108520	25.0	28.2	
76 Toluene	91	9.051	9.047	0.004	96	64538	5.00	6.26	
77 trans-1,3-Dichloropropene	75	9.300	9.296	0.004	96	20596	5.00	5.90	
78 Ethyl methacrylate	69	9.361	9.357	0.004	96	21273	5.00	5.74	
79 1,1,2-Trichloroethane	97	9.495	9.491	0.004	84	12441	5.00	5.98	
80 Tetrachloroethene	164	9.568	9.564	0.004	93	11259	5.00	5.71	
81 1,3-Dichloropropane	76	9.653	9.649	0.004	98	20683	5.00	5.64	
82 2-Hexanone	43	9.708	9.710	-0.002	98	77674	25.0	25.4	
84 Chlorodibromomethane	129	9.860	9.862	-0.002	89	12134	5.00	6.01	
85 Ethylene Dibromide	107	9.975	9.977	-0.002	92	12654	5.00	6.14	
86 3-Chlorobenzotrifluoride	180	10.432	10.434	-0.002	56	20194	5.00	5.73	
87 Chlorobenzene	112	10.462	10.464	-0.002	94	40074	5.00	6.12	
88 4-Chlorobenzotrifluoride	180	10.523	10.525	-0.002	94	19328	5.00	5.74	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.555	-0.002	41	12841	5.00	5.77	
90 Ethylbenzene	106	10.566	10.561	0.005	99	21617	5.00	5.98	
91 m-Xylene & p-Xylene	106	10.693	10.695	-0.002	0	25113	5.00	5.67	
92 o-Xylene	106	11.077	11.072	0.004	97	26299	5.00	6.03	
93 Styrene	104	11.095	11.097	-0.002	97	45516	5.00	6.14	
94 Bromoform	173	11.277	11.279	-0.002	80	8075	5.00	5.63	
96 2-Chlorobenzotrifluoride	180	11.350	11.346	0.004	95	20089	5.00	5.69	
97 Isopropylbenzene	105	11.442	11.443	-0.001	95	66556	5.00	6.22	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.754	-0.002	78	15823	5.00	5.58	
100 Bromobenzene	156	11.758	11.754	0.004	97	14390	5.00	5.67	
102 trans-1,4-Dichloro-2-buten	53	11.788	11.790	-0.002	71	5807	5.00	5.78	
101 1,2,3-Trichloropropane	110	11.819	11.809	0.011	81	6014	5.00	5.03	
103 N-Propylbenzene	120	11.861	11.863	-0.002	99	18166	5.00	6.12	
104 2-Chlorotoluene	126	11.946	11.948	-0.002	96	15023	5.00	5.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.007	12.009	-0.002	96	15979	5.00	5.92	
106 1,3,5-Trimethylbenzene	105	12.038	12.040	-0.002	94	52394	5.00	6.15	
107 4-Chlorotoluene	126	12.068	12.070	-0.002	97	15021	5.00	5.76	
108 tert-Butylbenzene	119	12.354	12.356	-0.002	94	47394	5.00	6.42	
110 1,2,4-Trimethylbenzene	105	12.415	12.417	-0.002	96	50411	5.00	5.84	
111 1,2-dichloro-4-(trifluorom	214	12.464	12.459	0.005	96	14800	5.00	5.73	
112 sec-Butylbenzene	105	12.579	12.581	-0.002	94	62841	5.00	6.26	
113 1,3-Dichlorobenzene	146	12.695	12.697	-0.002	97	26933	5.00	5.73	
114 4-Isopropyltoluene	119	12.737	12.733	0.004	95	52701	5.00	6.10	
115 1,4-Dichlorobenzene	146	12.804	12.800	0.004	95	29876	5.00	6.18	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.831	-0.002	93	14193	5.00	5.88	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.873	-0.008	0	14434	5.00	5.36	
120 n-Butylbenzene	91	13.145	13.147	-0.002	97	45375	5.00	6.13	
121 1,2-Dichlorobenzene	146	13.157	13.159	-0.002	96	25566	5.00	5.79	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.956	-0.008	53	5385	5.00	4.95	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.100	14.090	0.010	0	55694	15.0	17.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.514	14.510	0.004	0	38823	10.0	11.5	
126 1,2,4-Trichlorobenzene	180	14.775	14.771	0.004	92	14395	5.00	5.74	
127 Hexachlorobutadiene	225	14.921	14.917	0.004	91	6851	5.00	6.18	
128 Naphthalene	128	15.043	15.039	0.004	98	42825	5.00	5.40	
129 1,2,3-Trichlorobenzene	180	15.268	15.270	-0.002	93	12684	5.00	5.44	
131 2,4,5-Trichlorotoluene	159	16.041	16.037	0.004	0	7969	5.00	5.53	
130 2,3,6-Trichlorotoluene	159	16.132	16.134	-0.002	92	7741	5.00	5.89	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		10.0	11.4	
S 133 Xylenes, Total	106				0		10.0	11.7	
S 135 1,3-Dichloropropene, Total	1				0		10.0	11.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 0.20	Units: uL
voaWAcro1stRe_00014	Amount Added: 4.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 0.20	Units: uL
voaWKetmix1st_00003	Amount Added: 0.80	Units: uL
voaW2clev1stR_00008	Amount Added: 0.20	Units: uL
voaWVA1stRest_00015	Amount Added: 0.20	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 0.20	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D

Injection Date: 08-Jun-2017 06:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD1

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

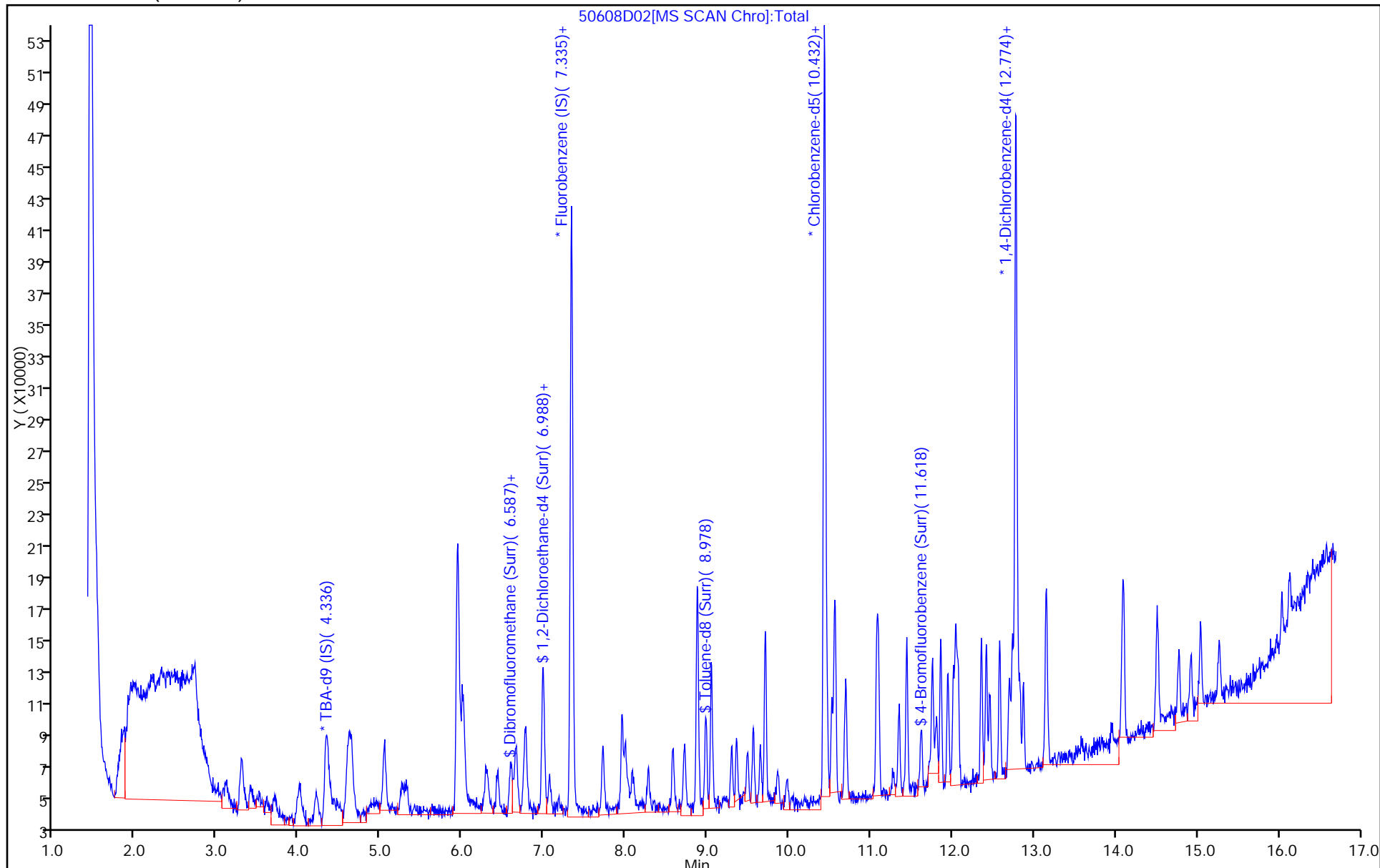
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

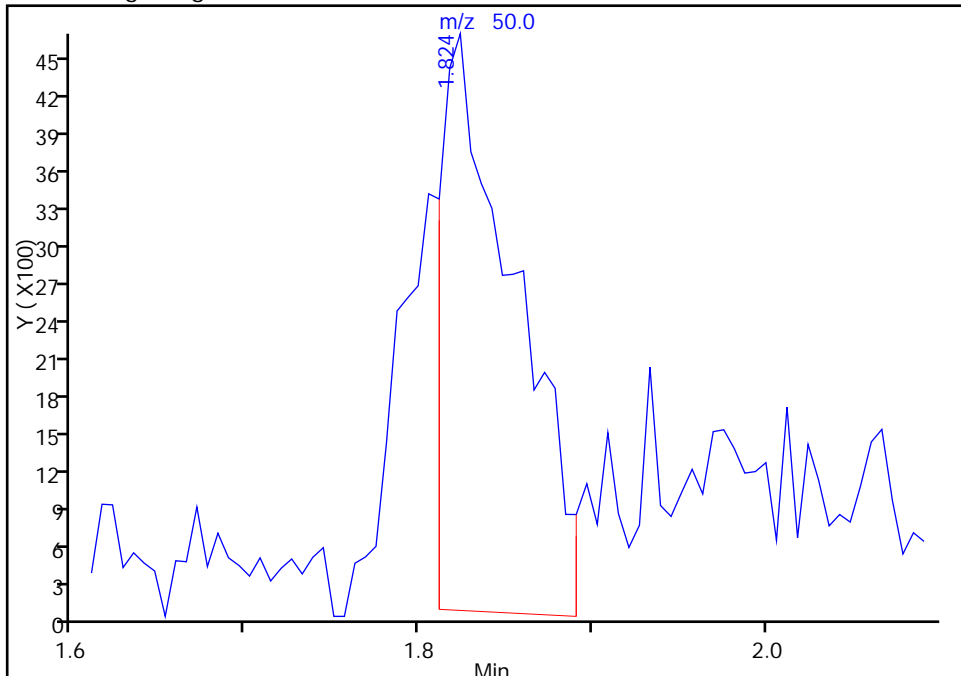
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D
Injection Date: 08-Jun-2017 06:03:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

12 Chloromethane, CAS: 74-87-3

Signal: 1

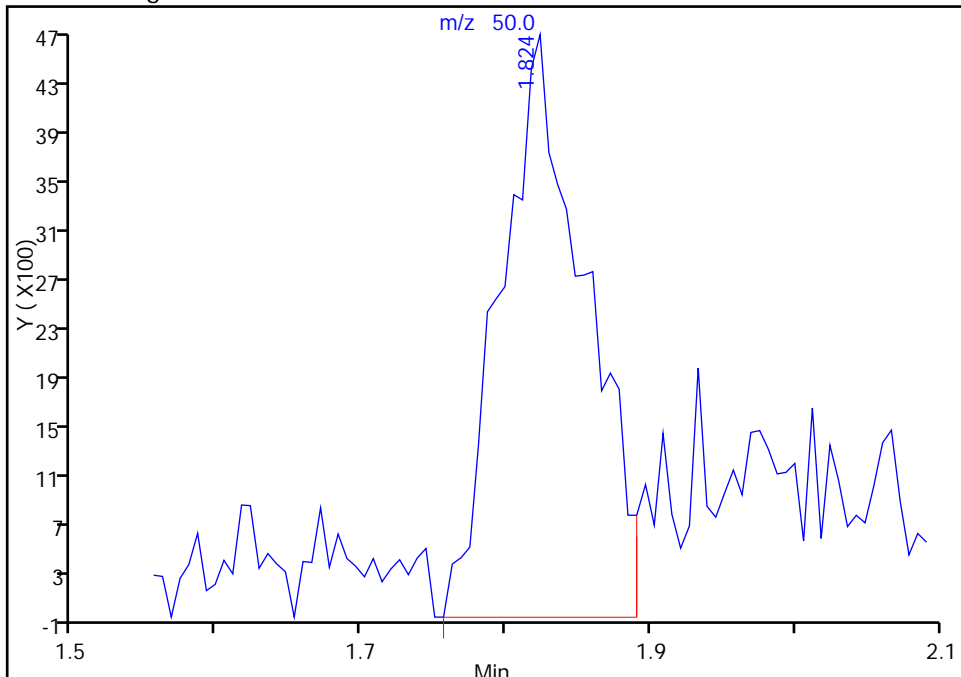
RT: 1.82
Area: 13764
Amount: 3.714099
Amount Units: ng

Processing Integration Results



RT: 1.82
Area: 18956
Amount: 6.165870
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 07:42:27
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

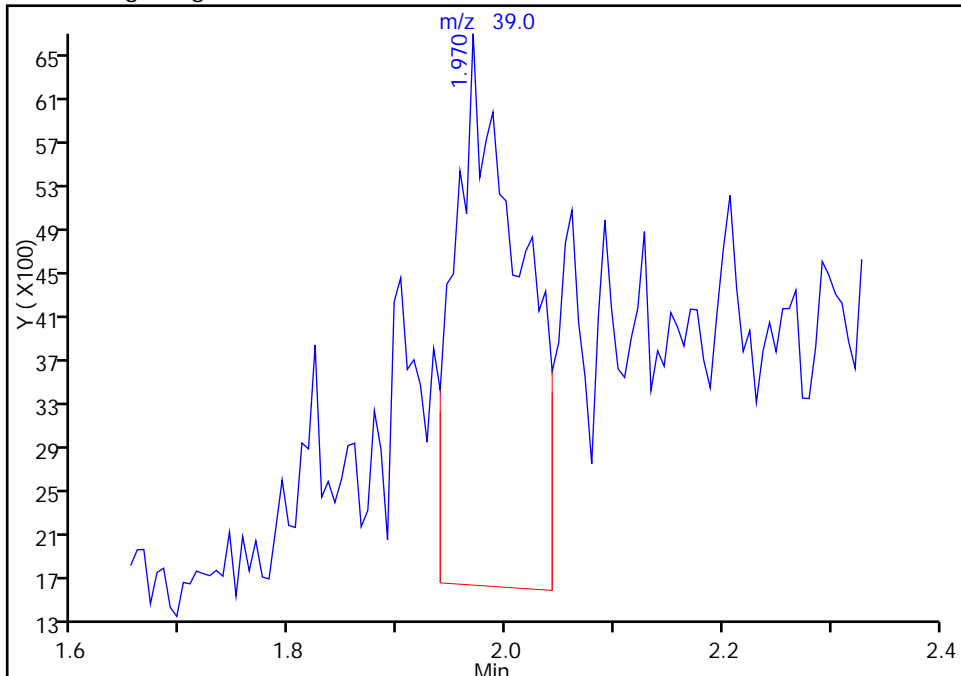
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D02.D
Injection Date: 08-Jun-2017 06:03:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

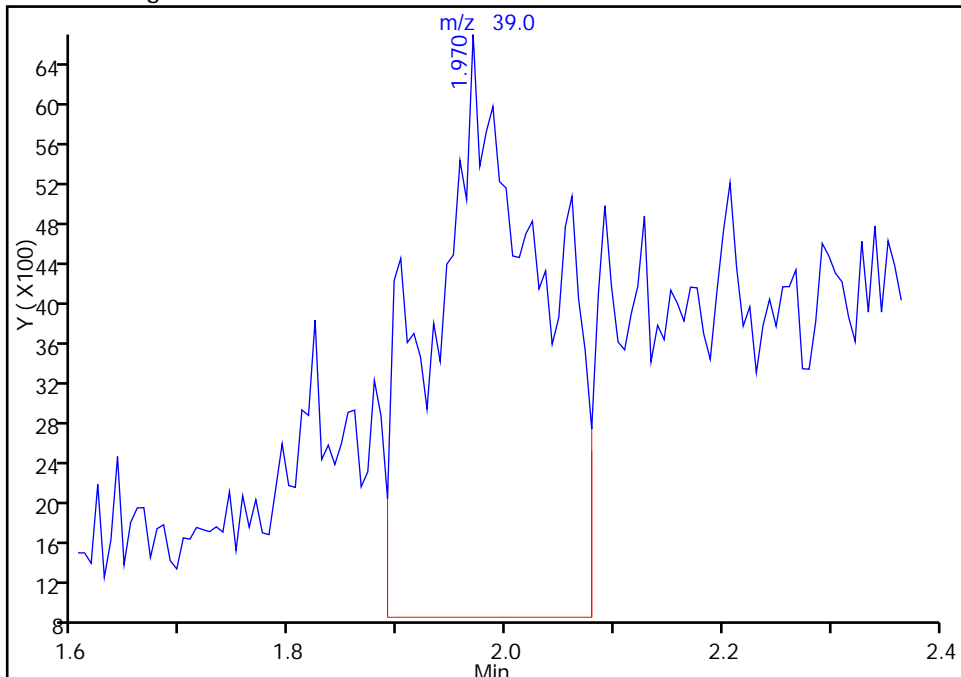
RT: 1.97
Area: 21198
Amount: 7.293688
Amount Units: ng

Processing Integration Results



RT: 1.97
Area: 40764
Amount: 5.112320
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:14:10
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D
 Lims ID: IC VSTD5
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 08-Jun-2017 06:27:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-003
 Misc. Info.: IC VSTD5
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:51:58 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:50:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.340	4.335	0.005	0	187522	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.333	7.335	-0.002	98	325638	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.431	0.004	88	81141	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.779	-0.002	95	116829	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.615	6.613	0.002	94	42506	25.0	25.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	7.110	-0.124	0	58513	25.0	25.5	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.980	0.001	93	175766	25.0	27.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.618	-0.003	87	69269	25.0	26.9	
11 Dichlorodifluoromethane	85	1.614	1.619	-0.005	96	48819	25.0	27.7	
12 Chloromethane	50	1.827	1.826	0.001	99	77319	25.0	27.4	
13 Vinyl chloride	62	1.955	1.947	0.008	70	59985	25.0	26.6	
14 Butadiene	39	1.985	1.972	0.013	97	65480	25.0	22.3	M
15 Bromomethane	94	2.314	2.318	-0.004	81	36804	25.0	27.3	
16 Chloroethane	64	2.454	2.446	0.008	87	40020	25.0	28.2	
18 Trichlorofluoromethane	101	2.728	2.720	0.008	96	60735	25.0	27.4	
17 Dichlorofluoromethane	67	2.728	2.726	0.002	61	91376	25.0	24.6	
20 Ethyl ether	59	3.111	3.109	0.002	96	58960	25.0	27.6	
21 Acrolein	56	3.293	3.304	-0.011	99	88139	125.0	129.5	
22 1,1-Dichloroethene	96	3.409	3.413	-0.004	95	51467	25.0	27.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.470	3.462	0.008	89	40795	25.0	25.9	
24 Acetone	43	3.518	3.511	0.007	100	89042	50.0	54.8	
25 Iodomethane	142	3.610	3.602	0.008	100	69421	25.0	24.6	
26 Carbon disulfide	76	3.695	3.693	0.002	100	149164	25.0	28.3	
28 3-Chloro-1-propene	76	3.993	3.991	0.002	91	40410	25.0	25.5	
30 Methyl acetate	43	4.017	4.022	-0.005	99	125959	50.0	50.9	
31 Methylene Chloride	84	4.212	4.216	-0.004	98	57651	25.0	25.4	
32 2-Methyl-2-propanol	59	4.480	4.478	0.002	98	59104	250.0	252.6	
33 Acrylonitrile	53	4.595	4.594	0.001	97	296073	250.0	259.1	
34 trans-1,2-Dichloroethene	96	4.632	4.630	0.002	72	60758	25.0	27.1	
35 Methyl tert-butyl ether	73	4.644	4.648	-0.004	95	179109	25.0	26.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.045	5.044	0.001	96	103760	25.0	26.3	
37 1,1-Dichloroethane	63	5.264	5.257	0.007	96	108391	25.0	25.5	
38 Vinyl acetate	43	5.313	5.311	0.002	97	155793	25.0	25.2	
44 2,2-Dichloropropane	97	6.000	5.999	0.001	56	16827	25.0	29.6	
45 cis-1,2-Dichloroethene	96	6.000	6.005	-0.005	84	64409	25.0	25.8	
46 2-Butanone (MEK)	43	6.013	6.023	-0.010	99	126726	50.0	59.7	
49 Chlorobromomethane	128	6.292	6.279	0.013	93	28527	25.0	25.9	
51 Tetrahydrofuran	42	6.311	6.303	0.008	92	60280	50.0	51.9	
52 Chloroform	83	6.432	6.431	0.001	95	95932	25.0	25.5	
53 1,1,1-Trichloroethane	97	6.591	6.589	0.002	97	84914	25.0	27.8	
54 Cyclohexane	56	6.657	6.656	0.001	95	113357	25.0	25.0	
56 Carbon tetrachloride	117	6.761	6.759	0.002	96	67382	25.0	25.1	
55 1,1-Dichloropropene	75	6.779	6.777	0.002	93	85510	25.0	26.7	
57 Isobutyl alcohol	41	6.980	6.978	0.002	62	71001	625.0	629.1	
58 Benzene	78	6.992	6.990	0.002	97	247989	25.0	26.5	
59 1,2-Dichloroethane	62	7.071	7.069	0.002	96	79055	25.0	25.7	
62 n-Heptane	43	7.351	7.349	0.002	96	98365	25.0	27.4	
64 Trichloroethene	130	7.722	7.720	0.002	97	60499	25.0	26.4	
66 Methylcyclohexane	83	7.953	7.958	-0.005	93	104066	25.0	26.7	
67 1,2-Dichloropropane	63	7.996	7.994	0.002	93	65502	25.0	25.2	
68 Dibromomethane	93	8.087	8.079	0.008	96	33894	25.0	25.2	
70 1,4-Dioxane	88	8.087	8.085	0.002	36	11481	500.0	470.9	
71 Dichlorobromomethane	83	8.276	8.274	0.002	97	74099	25.0	26.0	
73 2-Chloroethyl vinyl ether	63	8.580	8.578	0.002	92	90813	50.0	51.9	
74 cis-1,3-Dichloropropene	75	8.720	8.718	0.002	91	94517	25.0	24.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.878	8.876	0.002	98	201052	50.0	56.9	
76 Toluene	91	9.048	9.047	0.001	98	267398	25.0	28.3	
77 trans-1,3-Dichloropropene	75	9.298	9.296	0.002	97	85181	25.0	26.6	
78 Ethyl methacrylate	69	9.359	9.357	0.001	93	92176	25.0	27.1	
79 1,1,2-Trichloroethane	97	9.492	9.491	0.001	92	51670	25.0	27.0	
80 Tetrachloroethene	164	9.559	9.564	-0.005	98	49391	25.0	27.3	
81 1,3-Dichloropropane	76	9.651	9.649	0.002	96	89143	25.0	26.5	
82 2-Hexanone	43	9.705	9.710	-0.005	98	166556	50.0	59.4	
84 Chlorodibromomethane	129	9.863	9.862	0.001	90	47826	25.0	25.8	
85 Ethylene Dibromide	107	9.973	9.977	-0.004	96	50923	25.0	26.9	
86 3-Chlorobenzotrifluoride	180	10.435	10.434	0.001	89	78236	25.0	24.2	
87 Chlorobenzene	112	10.460	10.464	-0.004	93	163865	25.0	27.2	
88 4-Chlorobenzotrifluoride	180	10.520	10.525	-0.005	95	75328	25.0	24.4	
89 1,1,1,2-Tetrachloroethane	131	10.557	10.555	0.002	94	55355	25.0	27.1	
90 Ethylbenzene	106	10.563	10.561	0.002	98	92680	25.0	27.9	
91 m-Xylene & p-Xylene	106	10.697	10.695	0.002	0	113117	25.0	27.8	
92 o-Xylene	106	11.074	11.072	0.002	98	110628	25.0	27.6	
93 Styrene	104	11.098	11.097	0.001	96	186493	25.0	27.4	
94 Bromoform	173	11.275	11.279	-0.004	96	35678	25.0	27.1	
96 2-Chlorobenzotrifluoride	180	11.348	11.346	0.002	98	81717	25.0	25.2	
97 Isopropylbenzene	105	11.439	11.443	-0.004	96	275560	25.0	28.1	
100 Bromobenzene	156	11.755	11.754	0.001	96	62935	25.0	25.7	
99 1,1,2,2-Tetrachloroethane	83	11.755	11.754	0.001	80	71451	25.0	27.5	
102 trans-1,4-Dichloro-2-buten	53	11.798	11.790	0.008	85	24438	25.0	25.2	
101 1,2,3-Trichloropropane	110	11.816	11.809	0.008	86	21177	25.0	24.1	
103 N-Propylbenzene	120	11.859	11.863	-0.004	99	75699	25.0	26.4	
104 2-Chlorotoluene	126	11.944	11.948	-0.004	96	64522	25.0	26.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.011	12.009	0.002	96	64028	25.0	24.6	
106 1,3,5-Trimethylbenzene	105	12.041	12.040	0.001	96	225181	25.0	27.4	
107 4-Chlorotoluene	126	12.072	12.070	0.002	98	65156	25.0	25.9	
108 tert-Butylbenzene	119	12.358	12.356	0.002	94	192596	25.0	27.1	
110 1,2,4-Trimethylbenzene	105	12.412	12.417	-0.005	98	226542	25.0	27.3	
111 1,2-dichloro-4-(trifluorom	214	12.461	12.459	0.002	98	60123	25.0	24.2	
112 sec-Butylbenzene	105	12.577	12.581	-0.004	94	263915	25.0	27.3	
113 1,3-Dichlorobenzene	146	12.698	12.697	0.001	99	118704	25.0	26.2	
114 4-Isopropyltoluene	119	12.735	12.733	0.002	97	228298	25.0	27.4	
115 1,4-Dichlorobenzene	146	12.802	12.800	0.002	96	121326	25.0	26.0	
116 2,4-Dichloro-1-(trifluorom	214	12.832	12.831	0.001	96	56924	25.0	24.5	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.873	-0.004	0	61504	25.0	23.7	
120 n-Butylbenzene	91	13.142	13.147	-0.005	98	193470	25.0	27.1	
121 1,2-Dichlorobenzene	146	13.155	13.159	-0.004	97	110285	25.0	25.9	
122 1,2-Dibromo-3-Chloropropan	75	13.945	13.956	-0.011	82	16918	25.0	26.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.090	0.001	0	232473	75.0	75.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.511	14.510	0.001	0	163558	50.0	50.1	
126 1,2,4-Trichlorobenzene	180	14.773	14.771	0.002	95	61041	25.0	25.2	
127 Hexachlorobutadiene	225	14.919	14.917	0.002	94	28379	25.0	26.5	
128 Naphthalene	128	15.040	15.039	0.001	97	195394	25.0	25.6	
129 1,2,3-Trichlorobenzene	180	15.266	15.270	-0.004	94	57072	25.0	25.4	
131 2,4,5-Trichlorotoluene	159	16.038	16.037	0.001	0	33861	25.0	24.4	
130 2,3,6-Trichlorotoluene	159	16.129	16.134	-0.005	97	32510	25.0	25.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		50.0	55.5	
S 134 1,2-Dichloroethene, Total	96				0		50.0	52.8	
S 135 1,3-Dichloropropene, Total	1				0		50.0	51.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 1.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 5.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 1.00	Units: uL
voaWKetmix1st_00003	Amount Added: 1.00	Units: uL
voaW2clev1stR_00008	Amount Added: 1.00	Units: uL
voaWVA1stRest_00015	Amount Added: 1.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 1.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D03.D

Injection Date: 08-Jun-2017 06:27:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD5

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

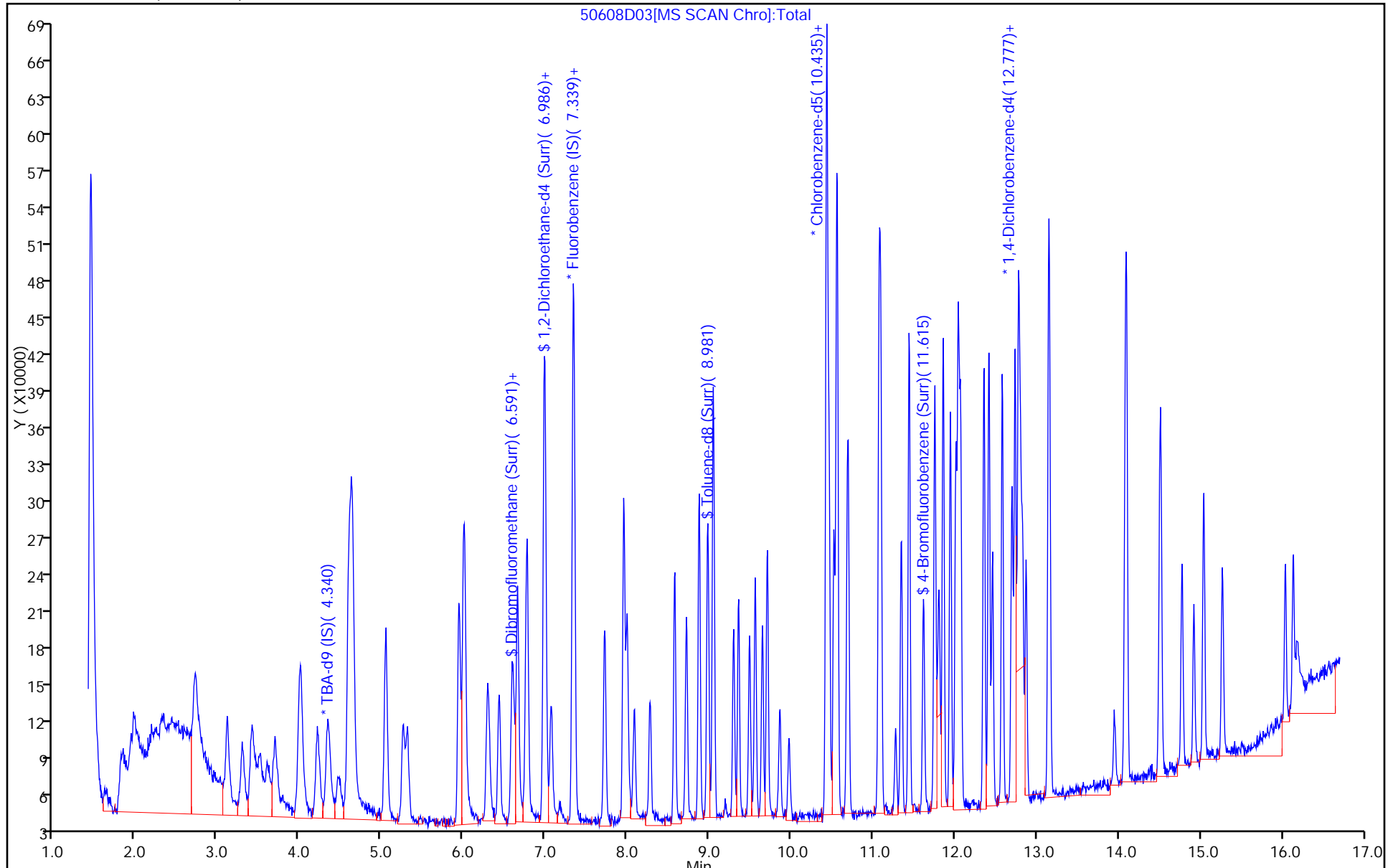
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

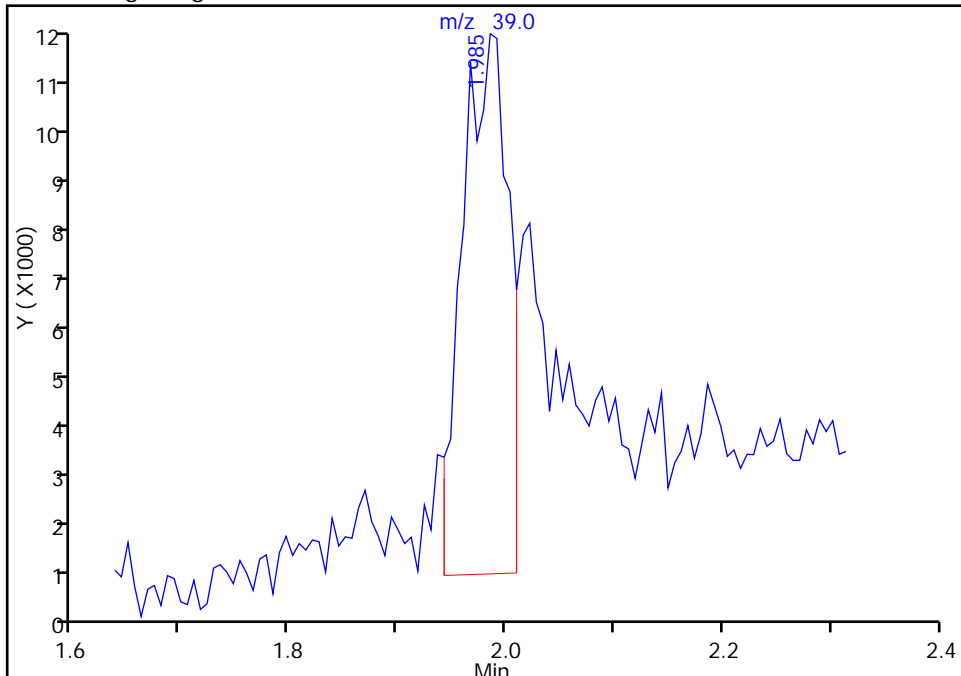
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Injection Date: 08-Jun-2017 06:27:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

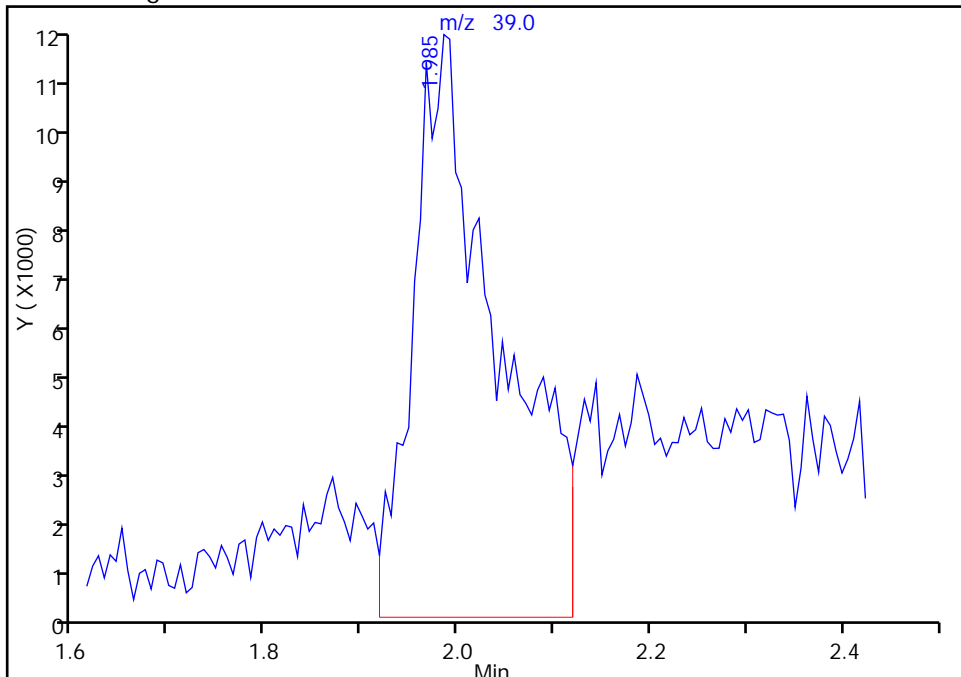
RT: 1.99
Area: 28410
Amount: 9.122879
Amount Units: ng

Processing Integration Results



RT: 1.99
Area: 65480
Amount: 22.258941
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:14:49
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D
 Lims ID: ICIS VSTD10
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 08-Jun-2017 06:50:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-004
 Misc. Info.: ICIS VSTD10
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:59:21 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:40:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.344	4.344	0.000	0	265733	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.337	0.000	95	343353	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.434	0.000	86	84081	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.776	12.776	0.000	71	124675	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.613	6.613	0.000	68	88453	50.0	50.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.978	6.978	0.000	0	121114	50.0	50.0	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.980	0.000	83	372845	50.0	55.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.614	0.000	85	144024	50.0	53.9	
11 Dichlorodifluoromethane	85	1.619	1.619	0.000	98	90064	50.0	48.4	
12 Chloromethane	50	1.826	1.826	0.000	100	147443	50.0	49.6	
13 Vinyl chloride	62	1.947	1.947	0.000	98	118745	50.0	50.0	
14 Butadiene	39	1.972	1.972	0.000	96	110274	50.0	46.1	M
15 Bromomethane	94	2.318	2.318	0.000	90	68918	50.0	52.1	
16 Chloroethane	64	2.446	2.446	0.000	97	71071	50.0	50.6	
18 Trichlorofluoromethane	101	2.720	2.720	0.000	95	126846	50.0	54.2	
17 Dichlorofluoromethane	67	2.726	2.726	0.000	78	190543	50.0	54.8	
20 Ethyl ether	59	3.109	3.109	0.000	91	108085	50.0	48.0	
21 Acrolein	56	3.304	3.304	0.000	91	97603	150.0	136.0	
22 1,1-Dichloroethene	96	3.413	3.413	0.000	87	90421	50.0	45.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.462	3.462	0.000	84	68361	50.0	41.2	
24 Acetone	43	3.511	3.511	0.000	95	191862	100.0	114.4	
25 Iodomethane	142	3.602	3.602	0.000	97	152131	50.0	51.1	
26 Carbon disulfide	76	3.693	3.693	0.000	99	282135	50.0	50.8	
28 3-Chloro-1-propene	76	3.991	3.991	0.000	88	80183	50.0	48.1	
30 Methyl acetate	43	4.022	4.022	0.000	99	263099	100.0	100.8	
31 Methylene Chloride	84	4.216	4.216	0.000	92	120006	50.0	50.0	
32 2-Methyl-2-propanol	59	4.478	4.478	0.000	94	167444	500.0	505.1	
33 Acrylonitrile	53	4.594	4.594	0.000	98	621223	500.0	515.6	
34 trans-1,2-Dichloroethene	96	4.630	4.630	0.000	70	116991	50.0	49.4	
35 Methyl tert-butyl ether	73	4.648	4.648	0.000	91	352917	50.0	49.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.044	5.044	0.000	93	201514	50.0	48.4	
37 1,1-Dichloroethane	63	5.257	5.257	0.000	96	217303	50.0	48.6	
38 Vinyl acetate	43	5.311	5.311	0.000	97	313586	50.0	48.0	
44 2,2-Dichloropropane	97	5.999	5.999	0.000	50	32248	50.0	53.8	
45 cis-1,2-Dichloroethene	96	6.005	6.005	0.000	71	129830	50.0	49.3	
46 2-Butanone (MEK)	43	6.023	6.023	0.000	91	263149	100.0	117.6	
49 Chlorobromomethane	128	6.279	6.279	0.000	90	54076	50.0	46.5	
51 Tetrahydrofuran	42	6.303	6.303	0.000	93	118128	100.0	101.7	
52 Chloroform	83	6.431	6.431	0.000	82	192042	50.0	48.4	
53 1,1,1-Trichloroethane	97	6.589	6.589	0.000	98	158536	50.0	49.3	
54 Cyclohexane	56	6.656	6.656	0.000	93	245975	50.0	51.4	
56 Carbon tetrachloride	117	6.759	6.759	0.000	78	138765	50.0	49.1	
55 1,1-Dichloropropene	75	6.777	6.777	0.000	90	164019	50.0	48.5	
57 Isobutyl alcohol	41	6.978	6.978	0.000	74	162229	1250.0	1363.2	
58 Benzene	78	6.990	6.990	0.000	96	491290	50.0	49.8	
59 1,2-Dichloroethane	62	7.069	7.069	0.000	72	154690	50.0	47.6	
62 n-Heptane	43	7.349	7.349	0.000	94	180722	50.0	47.7	
64 Trichloroethene	130	7.720	7.720	0.000	92	119100	50.0	49.3	
66 Methylcyclohexane	83	7.958	7.958	0.000	96	200723	50.0	48.8	
67 1,2-Dichloropropane	63	7.994	7.994	0.000	91	131736	50.0	48.0	
68 Dibromomethane	93	8.079	8.079	0.000	89	67786	50.0	47.9	
70 1,4-Dioxane	88	8.085	8.085	0.000	40	28838	1000.0	1121.8	
71 Dichlorobromomethane	83	8.274	8.274	0.000	88	144075	50.0	48.0	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	92	189337	100.0	102.5	
74 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	90	195974	50.0	48.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.876	8.876	0.000	98	408149	100.0	111.5	
76 Toluene	91	9.047	9.047	0.000	88	518665	50.0	52.9	
77 trans-1,3-Dichloropropene	75	9.296	9.296	0.000	93	173242	50.0	52.2	
78 Ethyl methacrylate	69	9.357	9.357	0.000	75	187087	50.0	53.0	
79 1,1,2-Trichloroethane	97	9.491	9.491	0.000	87	103149	50.0	52.1	
80 Tetrachloroethene	164	9.564	9.564	0.000	84	100597	50.0	53.7	
81 1,3-Dichloropropane	76	9.649	9.649	0.000	96	182710	50.0	52.3	
82 2-Hexanone	43	9.710	9.710	0.000	82	356470	100.0	122.6	
84 Chlorodibromomethane	129	9.862	9.862	0.000	85	97738	50.0	50.9	
85 Ethylene Dibromide	107	9.977	9.977	0.000	96	101860	50.0	51.9	
86 3-Chlorobenzotrifluoride	180	10.434	10.434	0.000	89	173880	50.0	51.9	
87 Chlorobenzene	112	10.464	10.464	0.000	92	328169	50.0	52.7	
88 4-Chlorobenzotrifluoride	180	10.525	10.525	0.000	79	169101	50.0	52.8	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.555	0.000	39	108701	50.0	51.3	
90 Ethylbenzene	106	10.561	10.561	0.000	99	179947	50.0	52.3	
91 m-Xylene & p-Xylene	106	10.695	10.695	0.000	0	220525	50.0	52.3	
92 o-Xylene	106	11.072	11.072	0.000	96	219383	50.0	52.9	
93 Styrene	104	11.097	11.097	0.000	93	370310	50.0	52.5	
94 Bromoform	173	11.279	11.279	0.000	92	71432	50.0	52.4	
96 2-Chlorobenzotrifluoride	180	11.346	11.346	0.000	93	179192	50.0	53.4	
97 Isopropylbenzene	105	11.443	11.443	0.000	96	539180	50.0	53.0	
100 Bromobenzene	156	11.754	11.754	0.000	96	132180	50.0	50.6	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.754	0.000	71	149279	50.0	55.3	
102 trans-1,4-Dichloro-2-buten	53	11.790	11.790	0.000	46	49225	50.0	47.6	
101 1,2,3-Trichloropropane	110	11.809	11.809	0.000	33	45049	50.0	50.1	
103 N-Propylbenzene	120	11.863	11.863	0.000	99	150964	50.0	49.4	
104 2-Chlorotoluene	126	11.948	11.948	0.000	96	126477	50.0	49.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.009	12.009	0.000	97	137789	50.0	49.6	
106 1,3,5-Trimethylbenzene	105	12.040	12.040	0.000	95	437477	50.0	50.0	
107 4-Chlorotoluene	126	12.070	12.070	0.000	82	134516	50.0	50.1	
108 tert-Butylbenzene	119	12.356	12.356	0.000	92	374641	50.0	49.4	
110 1,2,4-Trimethylbenzene	105	12.417	12.417	0.000	98	447784	50.0	50.5	
111 1,2-dichloro-4-(trifluorom	214	12.459	12.459	0.000	75	128125	50.0	48.2	
112 sec-Butylbenzene	105	12.581	12.581	0.000	94	518713	50.0	50.2	
113 1,3-Dichlorobenzene	146	12.697	12.697	0.000	97	239355	50.0	49.5	
114 4-Isopropyltoluene	119	12.733	12.733	0.000	89	447713	50.0	50.4	
115 1,4-Dichlorobenzene	146	12.800	12.800	0.000	92	241133	50.0	48.5	
116 2,4-Dichloro-1-(trifluorom	214	12.831	12.831	0.000	96	120263	50.0	48.4	
118 2,5-Dichlorobenzotrifluori	214	12.873	12.873	0.000	0	139012	50.0	50.2	
120 n-Butylbenzene	91	13.147	13.147	0.000	95	384393	50.0	50.5	
121 1,2-Dichlorobenzene	146	13.159	13.159	0.000	95	228728	50.0	50.4	
122 1,2-Dibromo-3-Chloropropan	75	13.956	13.956	0.000	76	31264	50.0	49.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.090	14.090	0.000	0	511161	150.0	154.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.510	0.000	0	360161	100.0	103.3	
126 1,2,4-Trichlorobenzene	180	14.771	14.771	0.000	93	131499	50.0	50.9	
127 Hexachlorobutadiene	225	14.917	14.917	0.000	92	57408	50.0	50.3	
128 Naphthalene	128	15.039	15.039	0.000	97	441802	50.0	54.2	
129 1,2,3-Trichlorobenzene	180	15.270	15.270	0.000	94	125237	50.0	52.3	
131 2,4,5-Trichlorotoluene	159	16.037	16.037	0.000	0	80722	50.0	54.4	
130 2,3,6-Trichlorotoluene	159	16.134	16.134	0.000	95	71633	50.0	53.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	101.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 2.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 6.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 2.00	Units: uL
voaWKetmix1st_00003	Amount Added: 2.00	Units: uL
voaW2clev1stR_00008	Amount Added: 2.00	Units: uL
voaWVA1stRest_00015	Amount Added: 2.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D

Injection Date: 08-Jun-2017 06:50:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICIS VSTD10

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

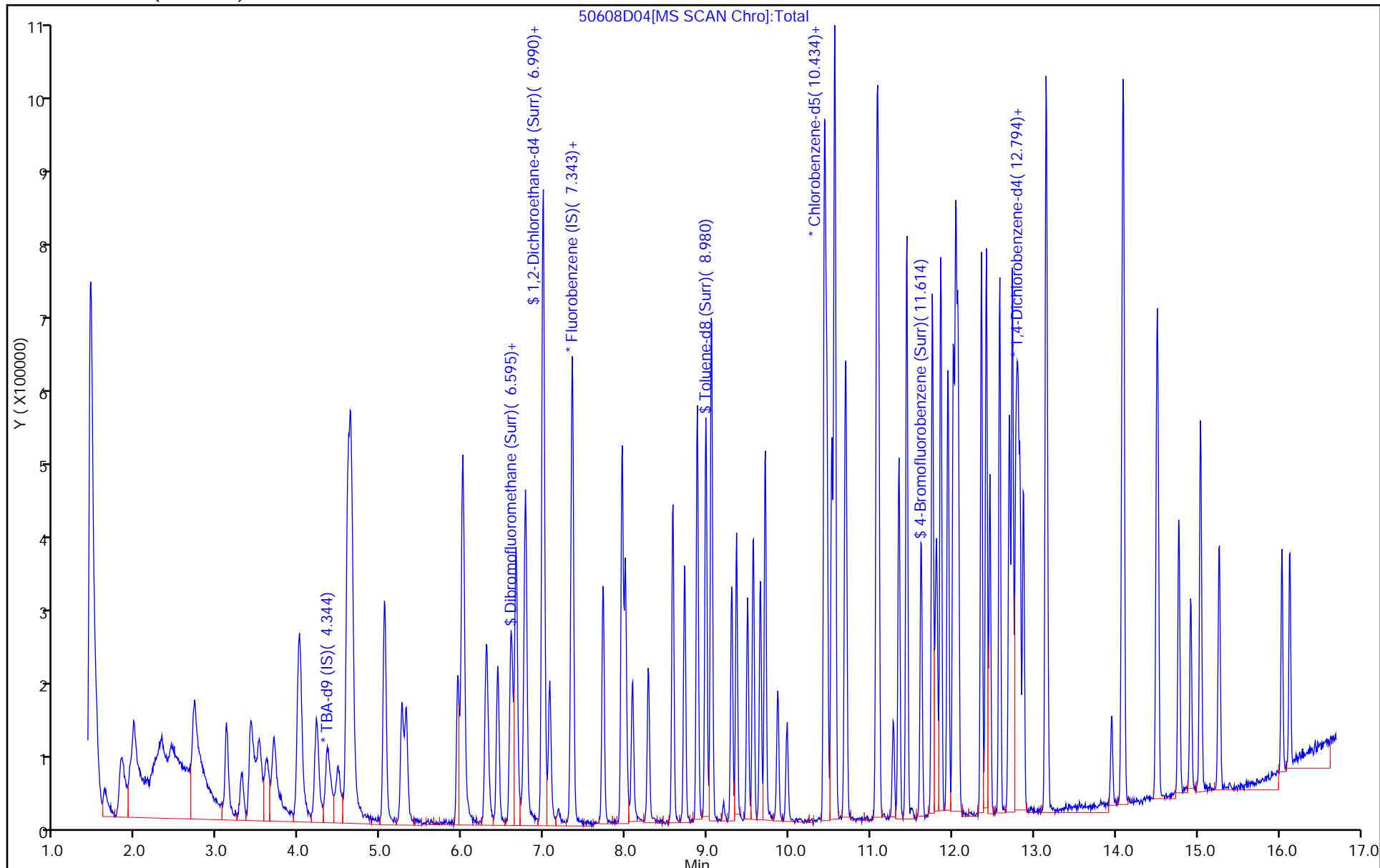
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

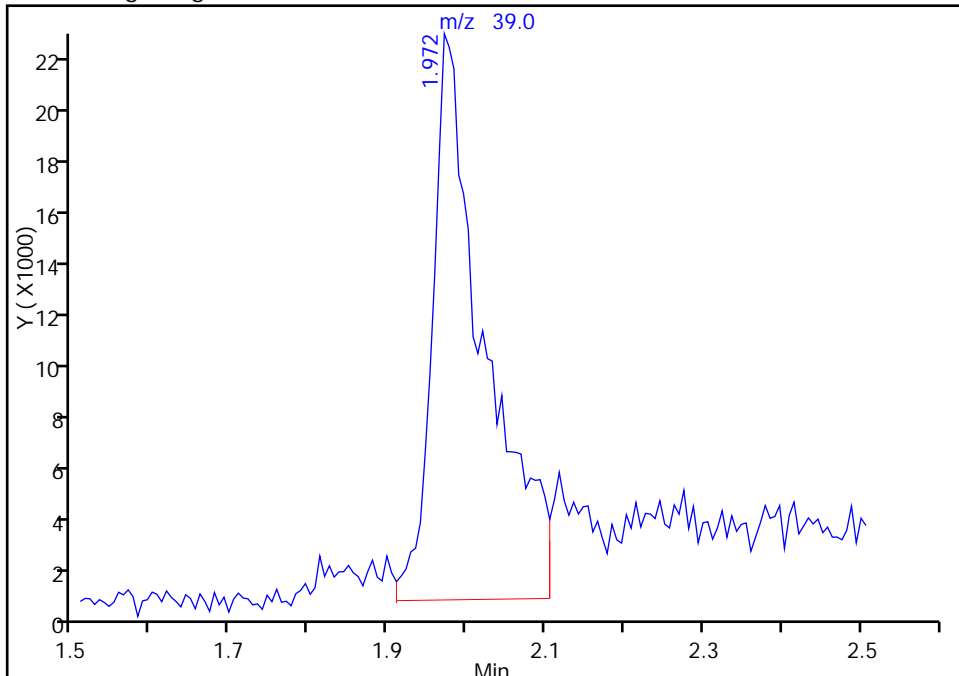
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D04.D
Injection Date: 08-Jun-2017 06:50:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

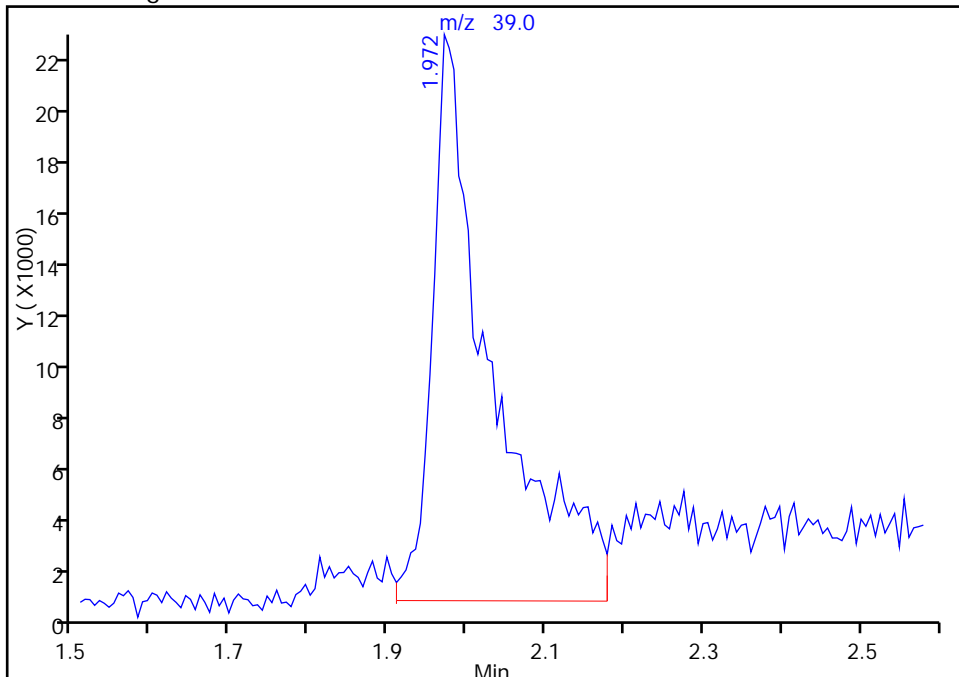
RT: 1.97
Area: 96074
Amount: 27.615453
Amount Units: ng

Processing Integration Results



RT: 1.97
Area: 110274
Amount: 46.125869
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:15:47
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 08-Jun-2017 07:24:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-005
 Misc. Info.: IC VSTD15
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:52:03 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 07:51:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.343	4.343	0.000	0	265751	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.336	0.000	98	365244	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	89	91661	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.781	12.781	0.000	93	130248	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.612	0.000	93	126785	75.0	67.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.983	0.000	0	173185	75.0	67.3	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.979	0.000	94	540141	75.0	73.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.613	0.000	88	210916	75.0	72.5	
11 Dichlorodifluoromethane	85	1.630	1.630	0.000	98	146171	75.0	73.9	
12 Chloromethane	50	1.831	1.831	0.000	98	222659	75.0	70.4	
13 Vinyl chloride	62	1.940	1.940	0.000	98	182711	75.0	72.3	
14 Butadiene	39	1.977	1.977	0.000	93	175484	75.0	77.8	M
15 Bromomethane	94	2.311	2.311	0.000	90	103436	75.0	75.5	
16 Chloroethane	64	2.451	2.451	0.000	98	109878	75.0	75.7	
18 Trichlorofluoromethane	101	2.719	2.719	0.000	95	157636	75.0	63.3	
17 Dichlorofluoromethane	67	2.725	2.725	0.000	95	273916	75.0	76.3	
20 Ethyl ether	59	3.108	3.108	0.000	95	174419	75.0	72.8	
21 Acrolein	56	3.297	3.297	0.000	99	133597	175.0	175.0	
22 1,1-Dichloroethene	96	3.400	3.400	0.000	95	144859	75.0	67.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.455	3.455	0.000	92	135965	75.0	77.0	
24 Acetone	43	3.510	3.510	0.000	99	239078	150.0	136.0	
25 Iodomethane	142	3.601	3.601	0.000	97	222629	75.0	70.3	
26 Carbon disulfide	76	3.686	3.686	0.000	100	431464	75.0	73.0	
28 3-Chloro-1-propene	76	3.990	3.990	0.000	90	129444	75.0	72.9	
30 Methyl acetate	43	4.015	4.015	0.000	99	385350	150.0	138.8	
31 Methylene Chloride	84	4.209	4.209	0.000	99	168850	75.0	66.2	
32 2-Methyl-2-propanol	59	4.471	4.471	0.000	98	223746	750.0	674.8	
33 Acrylonitrile	53	4.593	4.593	0.000	99	916220	750.0	714.8	
34 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	94	175351	75.0	69.6	
35 Methyl tert-butyl ether	73	4.635	4.635	0.000	99	533673	75.0	70.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.043	5.043	0.000	95	313674	75.0	70.9	
37 1,1-Dichloroethane	63	5.256	5.256	0.000	97	330111	75.0	69.4	
38 Vinyl acetate	43	5.310	5.310	0.000	97	480729	75.0	69.2	
44 2,2-Dichloropropane	97	5.992	5.992	0.000	93	46205	75.0	72.5	
45 cis-1,2-Dichloroethene	96	6.004	6.004	0.000	84	193227	75.0	68.9	
46 2-Butanone (MEK)	43	6.010	6.010	0.000	99	334832	150.0	140.7	
49 Chlorobromomethane	128	6.284	6.284	0.000	94	85492	75.0	69.1	
51 Tetrahydrofuran	42	6.296	6.296	0.000	92	163375	150.0	134.0	
52 Chloroform	83	6.430	6.430	0.000	95	285922	75.0	67.7	
53 1,1,1-Trichloroethane	97	6.594	6.594	0.000	98	233627	75.0	68.3	
54 Cyclohexane	56	6.655	6.655	0.000	95	358503	75.0	70.4	
56 Carbon tetrachloride	117	6.758	6.758	0.000	97	207671	75.0	69.1	
55 1,1-Dichloropropene	75	6.776	6.776	0.000	92	248344	75.0	69.1	
57 Isobutyl alcohol	41	6.977	6.977	0.000	96	215962	1875.0	1705.9	
58 Benzene	78	6.989	6.989	0.000	97	734073	75.0	69.9	
59 1,2-Dichloroethane	62	7.068	7.068	0.000	97	235973	75.0	68.3	
62 n-Heptane	43	7.348	7.348	0.000	96	282966	75.0	70.2	
64 Trichloroethene	130	7.719	7.719	0.000	97	177850	75.0	69.2	
66 Methylcyclohexane	83	7.957	7.957	0.000	95	308209	75.0	70.5	
67 1,2-Dichloropropane	63	7.993	7.993	0.000	96	200014	75.0	68.5	
68 Dibromomethane	93	8.078	8.078	0.000	93	100567	75.0	66.7	
70 1,4-Dioxane	88	8.084	8.084	0.000	41	35832	1500.0	1310.3	
71 Dichlorobromomethane	83	8.273	8.273	0.000	98	220386	75.0	69.0	
73 2-Chloroethyl vinyl ether	63	8.577	8.577	0.000	92	274054	150.0	139.5	
74 cis-1,3-Dichloropropene	75	8.717	8.717	0.000	92	296141	75.0	69.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.875	8.875	0.000	98	585317	150.0	146.6	
76 Toluene	91	9.052	9.052	0.000	99	780737	75.0	73.1	
77 trans-1,3-Dichloropropene	75	9.295	9.295	0.000	98	258935	75.0	71.5	
78 Ethyl methacrylate	69	9.356	9.356	0.000	92	280255	75.0	72.9	
79 1,1,2-Trichloroethane	97	9.496	9.496	0.000	92	153411	75.0	71.1	
80 Tetrachloroethene	164	9.563	9.563	0.000	98	152819	75.0	74.8	
81 1,3-Dichloropropane	76	9.648	9.648	0.000	97	274592	75.0	72.2	
82 2-Hexanone	43	9.709	9.709	0.000	98	481301	150.0	151.9	
84 Chlorodibromomethane	129	9.861	9.861	0.000	90	149990	75.0	71.7	
85 Ethylene Dibromide	107	9.976	9.976	0.000	100	148835	75.0	69.6	
86 3-Chlorobenzotrifluoride	180	10.439	10.439	0.000	92	274484	75.0	75.1	
87 Chlorobenzene	112	10.463	10.463	0.000	93	490822	75.0	72.2	
88 4-Chlorobenzotrifluoride	180	10.524	10.524	0.000	95	260997	75.0	74.7	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.554	0.000	94	169025	75.0	73.2	
90 Ethylbenzene	106	10.560	10.560	0.000	99	271964	75.0	72.5	
91 m-Xylene & p-Xylene	106	10.694	10.694	0.000	0	334134	75.0	72.7	
92 o-Xylene	106	11.071	11.071	0.000	97	326410	75.0	72.2	
93 Styrene	104	11.096	11.096	0.000	95	550534	75.0	71.6	
94 Bromoform	173	11.278	11.278	0.000	97	104149	75.0	70.0	
96 2-Chlorobenzotrifluoride	180	11.345	11.345	0.000	97	268204	75.0	73.3	
97 Isopropylbenzene	105	11.442	11.442	0.000	97	815253	75.0	73.5	
100 Bromobenzene	156	11.753	11.753	0.000	96	192570	75.0	70.6	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.753	0.000	91	204042	75.0	69.4	
102 trans-1,4-Dichloro-2-buten	53	11.795	11.795	0.000	87	76568	75.0	70.9	
101 1,2,3-Trichloropropane	110	11.814	11.814	0.000	86	68430	75.0	73.8	
103 N-Propylbenzene	120	11.856	11.856	0.000	99	226484	75.0	71.0	
104 2-Chlorotoluene	126	11.947	11.947	0.000	96	189243	75.0	70.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	98	204267	75.0	70.4	
106 1,3,5-Trimethylbenzene	105	12.045	12.045	0.000	95	646696	75.0	70.7	
107 4-Chlorotoluene	126	12.069	12.069	0.000	97	196596	75.0	70.1	
108 tert-Butylbenzene	119	12.355	12.355	0.000	94	559488	75.0	70.6	
110 1,2,4-Trimethylbenzene	105	12.416	12.416	0.000	97	668751	75.0	72.2	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	98	203613	75.0	73.4	
112 sec-Butylbenzene	105	12.580	12.580	0.000	95	775789	75.0	71.9	
113 1,3-Dichlorobenzene	146	12.696	12.696	0.000	98	359242	75.0	71.2	
114 4-Isopropyltoluene	119	12.738	12.738	0.000	97	663144	75.0	71.4	
115 1,4-Dichlorobenzene	146	12.799	12.799	0.000	95	361359	75.0	69.6	
116 2,4-Dichloro-1-(trifluorom	214	12.830	12.830	0.000	97	180562	75.0	69.6	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.872	0.000	0	214948	75.0	74.3	
120 n-Butylbenzene	91	13.146	13.146	0.000	97	565547	75.0	71.1	
121 1,2-Dichlorobenzene	146	13.158	13.158	0.000	96	328411	75.0	69.2	
122 1,2-Dibromo-3-Chloropropan	75	13.955	13.955	0.000	85	43060	75.0	67.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.095	14.095	0.000	0	735393	225.0	213.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.515	14.515	0.000	0	501273	150.0	137.6	
126 1,2,4-Trichlorobenzene	180	14.776	14.776	0.000	95	181806	75.0	67.4	
127 Hexachlorobutadiene	225	14.922	14.922	0.000	95	81879	75.0	68.7	
128 Naphthalene	128	15.038	15.038	0.000	98	584418	75.0	68.6	
129 1,2,3-Trichlorobenzene	180	15.269	15.269	0.000	94	166025	75.0	66.3	
131 2,4,5-Trichlorotoluene	159	16.036	16.036	0.000	0	103751	75.0	67.0	
130 2,3,6-Trichlorotoluene	159	16.133	16.133	0.000	96	92963	75.0	65.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		150.0	144.9	
S 134 1,2-Dichloroethene, Total	96				0		150.0	138.6	
S 135 1,3-Dichloropropene, Total	1				0		150.0	140.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 3.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 7.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 3.00	Units: uL
voaWKetmix1st_00003	Amount Added: 3.00	Units: uL
voaW2clev1stR_00008	Amount Added: 3.00	Units: uL
voaWVA1stRest_00015	Amount Added: 3.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 3.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D05.D

Injection Date: 08-Jun-2017 07:24:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD15

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

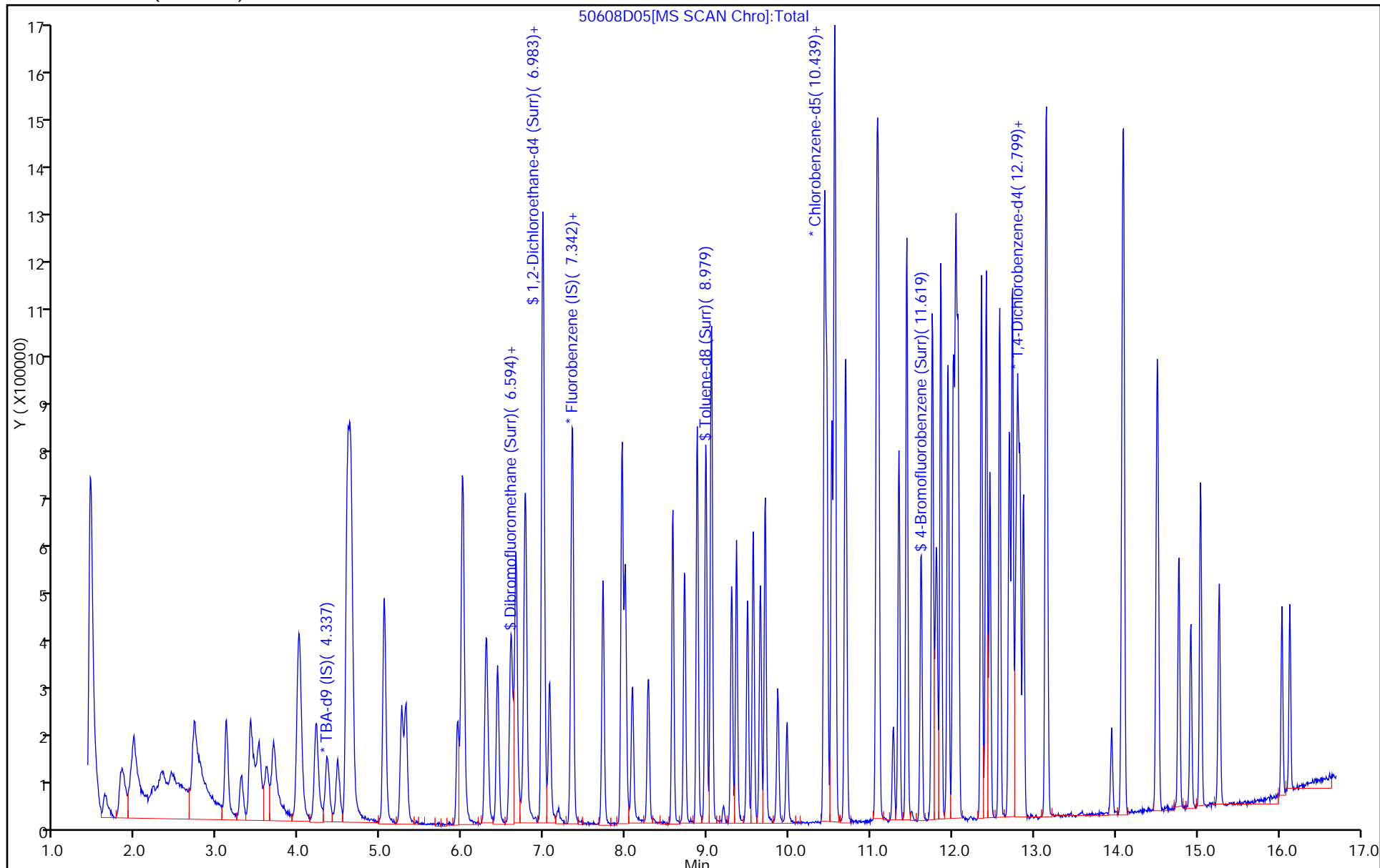
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

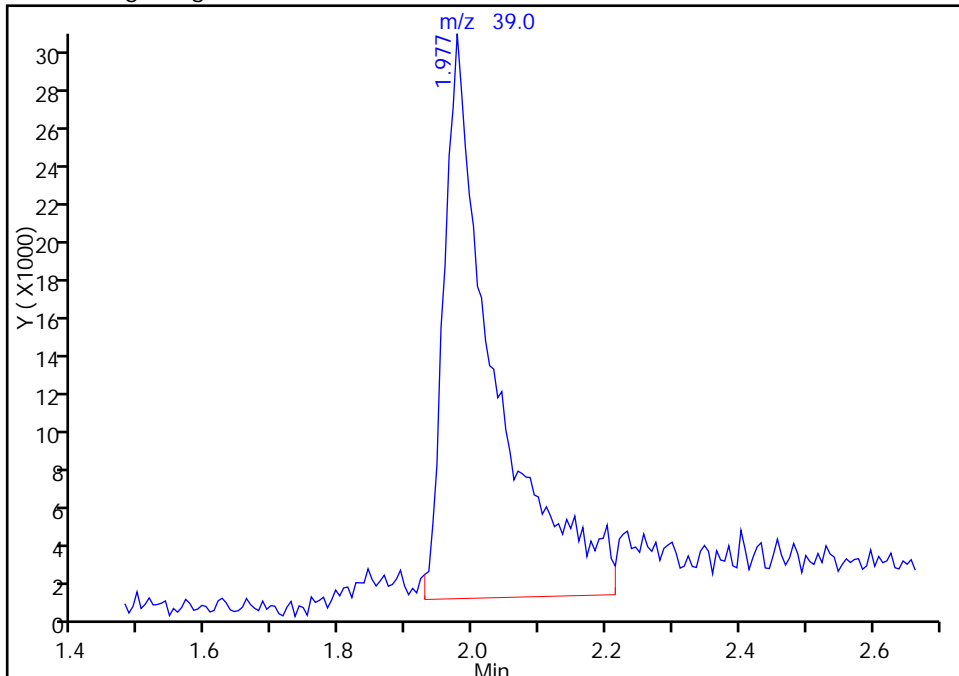
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Injection Date: 08-Jun-2017 07:24:30 Instrument ID: CHHP5
Lims ID: IC VSTD15
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

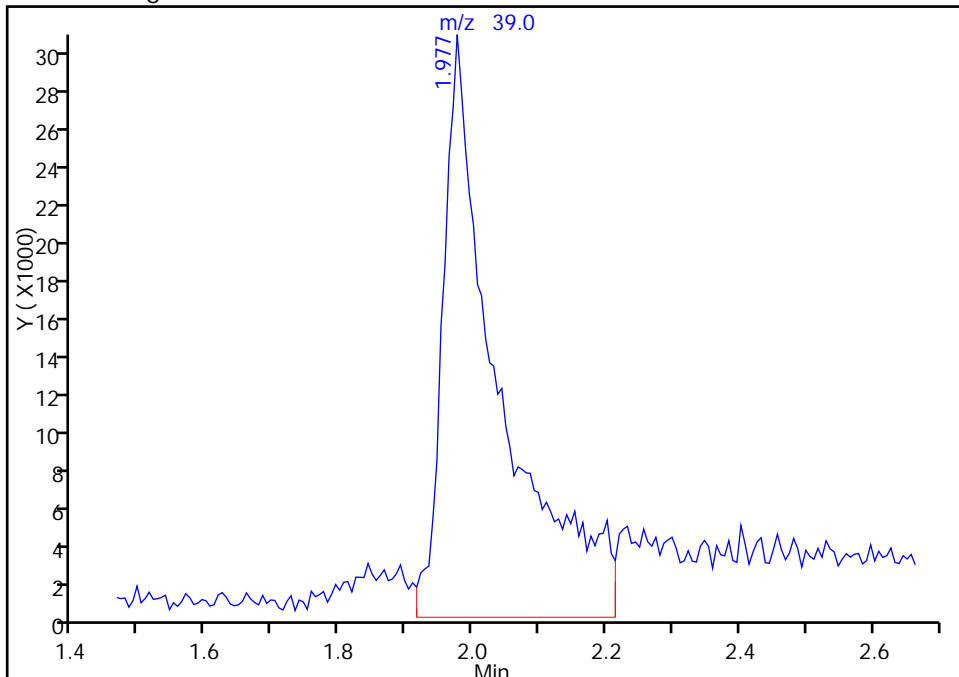
RT: 1.98
Area: 150869
Amount: 40.354776
Amount Units: ng

Processing Integration Results



RT: 1.98
Area: 175484
Amount: 77.784364
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:16:23
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 08-Jun-2017 07:48:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-006
 Misc. Info.: IC VSTD20
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:52:07 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 08:13:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.354	4.343	0.011	0	197193	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.335	7.336	-0.001	98	351980	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.437	10.433	0.004	69	92814	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.781	-0.008	92	129379	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.611	6.612	-0.001	94	173538	100.0	96.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.982	6.983	-0.001	0	231495	100.0	93.3	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.979	0.004	93	707972	100.0	95.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.618	11.613	0.005	88	284175	100.0	96.4	
11 Dichlorodifluoromethane	85	1.616	1.630	-0.014	99	190995	100.0	100.1	
12 Chloromethane	50	1.829	1.831	-0.002	100	281148	100.0	92.2	
13 Vinyl chloride	62	1.945	1.940	0.005	97	236967	100.0	97.3	
14 Butadiene	39	1.981	1.977	0.004	93	219867	100.0	106.4	M
15 Bromomethane	94	2.310	2.311	-0.001	92	137007	100.0	105.6	
16 Chloroethane	64	2.432	2.451	-0.019	99	132369	100.0	95.8	
18 Trichlorofluoromethane	101	2.724	2.719	0.005	90	232367	100.0	96.8	
17 Dichlorofluoromethane	67	2.718	2.725	-0.007	93	325877	100.0	95.7	
20 Ethyl ether	59	3.119	3.108	0.011	94	198208	100.0	85.9	
21 Acrolein	56	3.302	3.297	0.005	99	141135	200.0	191.9	
22 1,1-Dichloroethene	96	3.411	3.400	0.011	96	186952	100.0	90.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.460	3.455	0.005	91	194019	100.0	114.0	
24 Acetone	43	3.514	3.510	0.004	99	327588	200.0	204.6	
25 Iodomethane	142	3.606	3.601	0.005	97	309287	100.0	101.4	
26 Carbon disulfide	76	3.691	3.686	0.005	100	558362	100.0	98.1	
28 3-Chloro-1-propene	76	3.983	3.990	-0.007	90	162702	100.0	95.1	
30 Methyl acetate	43	4.019	4.015	0.004	99	536456	200.0	200.5	
31 Methylene Chloride	84	4.208	4.209	-0.001	98	240190	100.0	97.7	
32 2-Methyl-2-propanol	59	4.482	4.471	0.011	98	279075	1000.0	1134.3	
33 Acrylonitrile	53	4.597	4.593	0.005	99	1254097	1000.0	1015.3	
34 trans-1,2-Dichloroethene	96	4.634	4.623	0.011	96	235005	100.0	96.9	
35 Methyl tert-butyl ether	73	4.646	4.635	0.011	99	740346	100.0	101.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.047	5.043	0.004	95	414201	100.0	97.1	
37 1,1-Dichloroethane	63	5.260	5.256	0.004	96	449645	100.0	98.1	
38 Vinyl acetate	43	5.309	5.310	-0.001	97	621774	100.0	92.9	
44 2,2-Dichloropropane	97	5.997	5.992	0.004	59	59858	100.0	97.5	
45 cis-1,2-Dichloroethene	96	6.003	6.004	-0.001	83	263920	100.0	97.7	
46 2-Butanone (MEK)	43	6.015	6.010	0.005	99	440384	200.0	192.0	
49 Chlorobromomethane	128	6.289	6.284	0.004	93	111165	100.0	93.3	
51 Tetrahydrofuran	42	6.301	6.296	0.005	91	230737	200.0	199.3	
52 Chloroform	83	6.428	6.430	-0.002	96	393090	100.0	96.7	
53 1,1,1-Trichloroethane	97	6.587	6.594	-0.007	97	312138	100.0	94.7	
54 Cyclohexane	56	6.660	6.655	0.005	94	494683	100.0	100.8	
56 Carbon tetrachloride	117	6.757	6.758	-0.001	96	280114	100.0	96.7	
55 1,1-Dichloropropene	75	6.775	6.776	-0.001	92	338006	100.0	97.5	
57 Isobutyl alcohol	41	6.976	6.977	-0.001	95	308653	2500.0	2530.0	
58 Benzene	78	6.988	6.989	-0.001	98	989799	100.0	97.8	
59 1,2-Dichloroethane	62	7.067	7.068	-0.001	96	323970	100.0	97.3	
62 n-Heptane	43	7.353	7.348	0.005	96	368639	100.0	94.8	
64 Trichloroethene	130	7.724	7.719	0.005	97	246005	100.0	99.3	
66 Methylcyclohexane	83	7.955	7.957	-0.002	95	408182	100.0	96.8	
67 1,2-Dichloropropane	63	7.992	7.993	-0.001	97	273710	100.0	97.3	
68 Dibromomethane	93	8.083	8.078	0.005	95	139250	100.0	95.9	
70 1,4-Dioxane	88	8.077	8.084	-0.007	40	54731	2000.0	2076.8	
71 Dichlorobromomethane	83	8.278	8.273	0.005	98	292391	100.0	95.0	
73 2-Chloroethyl vinyl ether	63	8.576	8.577	-0.001	92	378146	200.0	199.8	
74 cis-1,3-Dichloropropene	75	8.722	8.717	0.005	92	403451	100.0	98.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.874	8.875	-0.001	98	771359	200.0	190.8	
76 Toluene	91	9.050	9.052	-0.002	98	1049056	100.0	97.0	
77 trans-1,3-Dichloropropene	75	9.294	9.295	-0.001	98	358629	100.0	97.8	
78 Ethyl methacrylate	69	9.355	9.356	-0.001	93	381934	100.0	98.1	
79 1,1,2-Trichloroethane	97	9.488	9.496	-0.008	92	214004	100.0	97.9	
80 Tetrachloroethene	164	9.561	9.563	-0.002	98	202692	100.0	98.0	
81 1,3-Dichloropropane	76	9.647	9.648	-0.001	97	386392	100.0	100.3	
82 2-Hexanone	43	9.707	9.709	-0.002	98	628179	200.0	195.8	
84 Chlorodibromomethane	129	9.860	9.861	-0.001	92	204939	100.0	96.7	
85 Ethylene Dibromide	107	9.975	9.976	-0.001	99	211108	100.0	97.5	
86 3-Chlorobenzotrifluoride	180	10.437	10.439	-0.002	93	377102	100.0	101.9	
87 Chlorobenzene	112	10.462	10.463	-0.001	93	663544	100.0	96.4	
88 4-Chlorobenzotrifluoride	180	10.523	10.524	-0.001	96	358041	100.0	101.2	
89 1,1,1,2-Tetrachloroethane	131	10.553	10.554	-0.001	93	229696	100.0	98.2	
90 Ethylbenzene	106	10.559	10.560	-0.001	99	366730	100.0	96.6	
91 m-Xylene & p-Xylene	106	10.693	10.694	-0.001	0	455089	100.0	97.8	
92 o-Xylene	106	11.076	11.071	0.005	97	441909	100.0	96.5	
93 Styrene	104	11.094	11.096	-0.002	95	754852	100.0	96.9	
94 Bromoform	173	11.277	11.278	-0.001	97	145882	100.0	96.9	
96 2-Chlorobenzotrifluoride	180	11.344	11.345	-0.001	98	372804	100.0	100.6	
97 Isopropylbenzene	105	11.441	11.442	-0.001	97	1097412	100.0	97.7	
99 1,1,2,2-Tetrachloroethane	83	11.758	11.753	0.005	80	298732	100.0	100.3	
100 Bromobenzene	156	11.758	11.753	0.005	94	266448	100.0	98.4	
102 trans-1,4-Dichloro-2-buten	53	11.794	11.795	-0.001	85	106219	100.0	99.0	
101 1,2,3-Trichloropropane	110	11.812	11.814	-0.002	86	94031	100.0	102.9	
103 N-Propylbenzene	120	11.861	11.856	0.005	99	307590	100.0	97.0	
104 2-Chlorotoluene	126	11.946	11.947	-0.001	96	257123	100.0	96.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.013	12.008	0.005	96	293533	100.0	101.9	
106 1,3,5-Trimethylbenzene	105	12.043	12.045	-0.002	94	887312	100.0	97.7	
107 4-Chlorotoluene	126	12.068	12.069	-0.001	98	266448	100.0	95.7	
108 tert-Butylbenzene	119	12.354	12.355	-0.001	94	763225	100.0	96.9	
110 1,2,4-Trimethylbenzene	105	12.415	12.416	-0.001	97	909030	100.0	98.7	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.458	-0.001	98	282839	100.0	102.6	
112 sec-Butylbenzene	105	12.579	12.580	-0.001	95	1045329	100.0	97.6	
113 1,3-Dichlorobenzene	146	12.700	12.696	0.004	98	493151	100.0	98.3	
114 4-Isopropyltoluene	119	12.737	12.738	-0.001	96	908837	100.0	98.5	
115 1,4-Dichlorobenzene	146	12.798	12.799	-0.001	95	502172	100.0	97.3	
116 2,4-Dichloro-1-(trifluorom	214	12.828	12.830	-0.002	97	253790	100.0	98.5	
118 2,5-Dichlorobenzotrifluori	214	12.871	12.872	-0.001	0	301944	100.0	105.1	
120 n-Butylbenzene	91	13.145	13.146	-0.001	97	773393	100.0	97.8	
121 1,2-Dichlorobenzene	146	13.157	13.158	-0.001	97	470610	100.0	99.9	
122 1,2-Dibromo-3-Chloropropan	75	13.948	13.955	-0.007	84	63264	100.0	101.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.094	14.095	-0.001	0	1047544	300.0	305.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.513	14.515	-0.002	0	732216	200.0	202.4	
126 1,2,4-Trichlorobenzene	180	14.775	14.776	-0.001	94	260096	100.0	97.1	
127 Hexachlorobutadiene	225	14.921	14.922	-0.001	95	114595	100.0	96.8	
128 Naphthalene	128	15.043	15.038	0.005	98	848811	100.0	100.3	
129 1,2,3-Trichlorobenzene	180	15.268	15.269	-0.001	94	243122	100.0	97.7	
131 2,4,5-Trichlorotoluene	159	16.034	16.036	-0.001	0	156547	100.0	101.7	
130 2,3,6-Trichlorotoluene	159	16.132	16.133	-0.001	96	135667	100.0	96.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		200.0	194.6	
S 133 Xylenes, Total	106				0		200.0	194.3	
S 135 1,3-Dichloropropene, Total	1				0		200.0	195.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 4.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 8.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 4.00	Units: uL
voaWKetmix1st_00003	Amount Added: 4.00	Units: uL
voaW2clev1stR_00008	Amount Added: 4.00	Units: uL
voaWVA1stRest_00015	Amount Added: 4.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 4.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D06.D

Injection Date: 08-Jun-2017 07:48:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD20

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

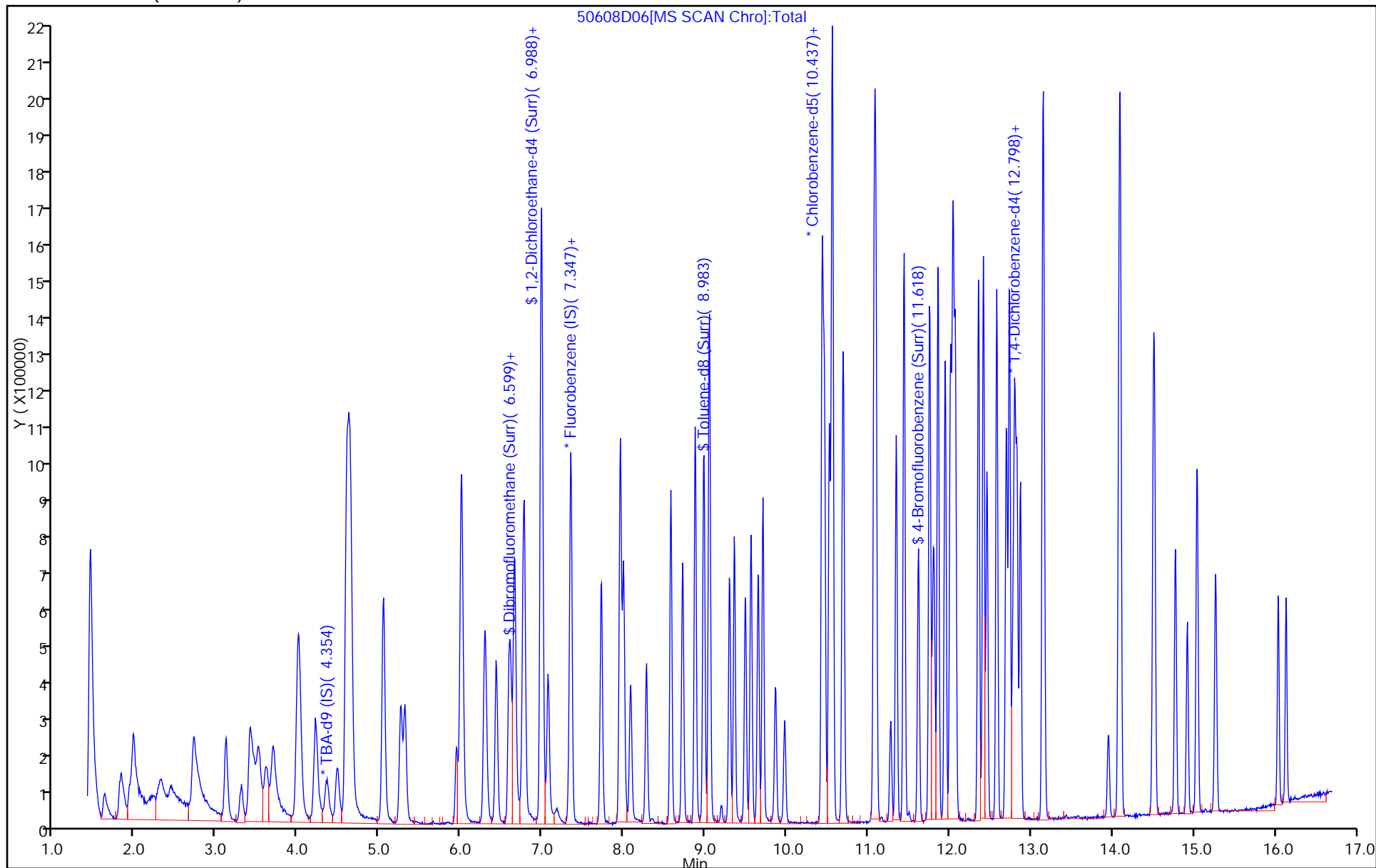
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

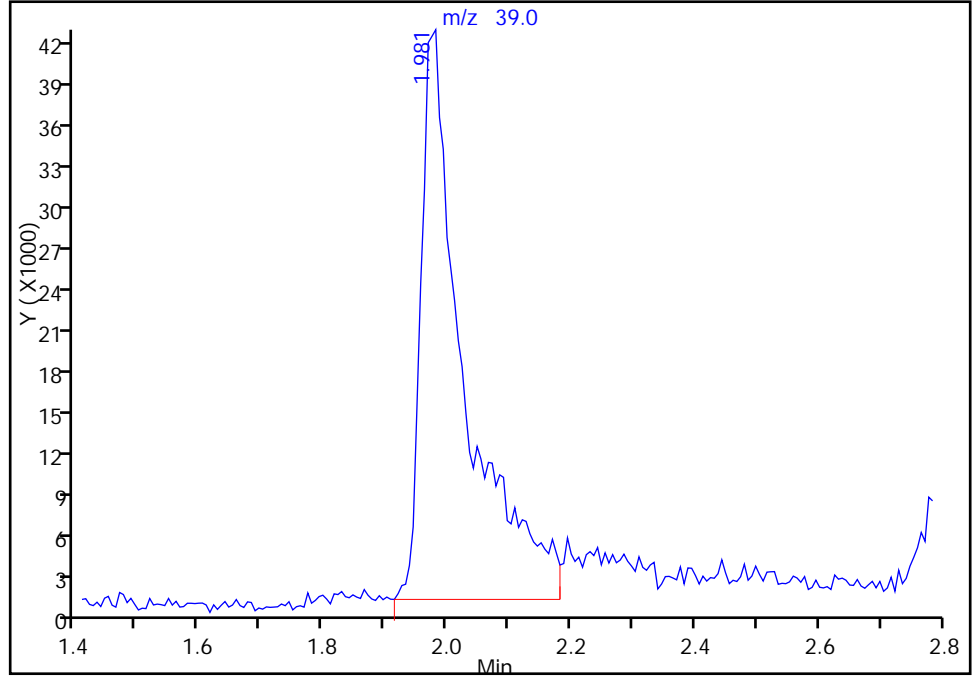
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Injection Date: 08-Jun-2017 07:48:30 Instrument ID: CHHP5
Lims ID: IC VSTD20
Client ID:
Operator ID: 034635 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

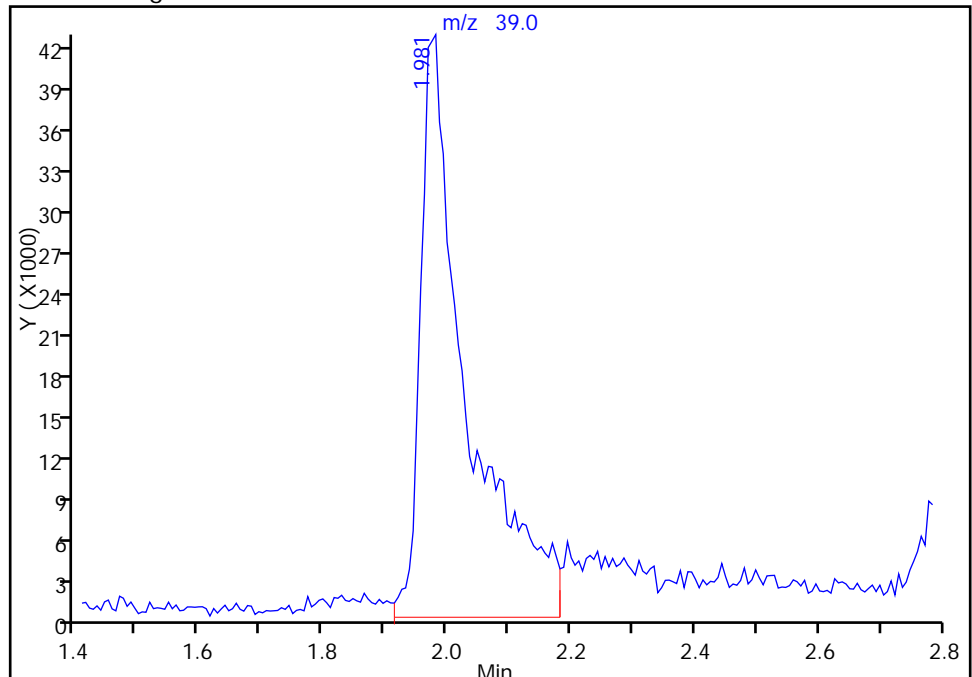
RT: 1.98
Area: 202883
Amount: 55.701377
Amount Units: ng

Processing Integration Results



RT: 1.98
Area: 219867
Amount: 106.4441
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:17:04
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 08-Jun-2017 08:11:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-007
 Misc. Info.: IC VSTD35
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:52:09 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 08:57:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.343	0.020	0	246279	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	98	313213	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	88	86638	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.776	12.781	-0.005	94	120475	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.614	6.612	0.002	94	297108	175.0	185.5	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.983	-0.004	0	402465	175.0	182.3	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	93	1190748	175.0	171.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.620	11.613	0.007	91	490170	175.0	178.1	
11 Dichlorodifluoromethane	85	1.619	1.630	-0.011	98	288265	175.0	169.9	
12 Chloromethane	50	1.826	1.831	-0.005	100	463847	175.0	171.0	
13 Vinyl chloride	62	1.942	1.940	0.002	98	381880	175.0	176.3	
14 Butadiene	39	1.978	1.977	0.001	93	322594	175.0	187.0	
15 Bromomethane	94	2.270	2.311	-0.041	91	193127	175.0	170.0	M
16 Chloroethane	64	2.428	2.451	-0.023	99	214850	175.0	178.4	
18 Trichlorofluoromethane	101	2.708	2.719	-0.011	89	407996	175.0	191.0	
17 Dichlorofluoromethane	67	2.714	2.725	-0.011	94	526510	175.0	178.8	
20 Ethyl ether	59	3.110	3.108	0.002	95	378438	175.0	184.2	
21 Acrolein	56	3.292	3.297	-0.005	99	176433	225.0	269.5	
22 1,1-Dichloroethene	96	3.402	3.400	0.002	95	355274	175.0	193.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.463	3.455	0.008	92	308123	175.0	203.4	
24 Acetone	43	3.511	3.510	0.001	99	441614	350.0	363.4	
25 Iodomethane	142	3.602	3.601	0.001	97	514836	175.0	189.7	
26 Carbon disulfide	76	3.682	3.686	-0.004	100	909550	175.0	179.5	
28 3-Chloro-1-propene	76	3.986	3.990	-0.004	88	269538	175.0	177.1	
30 Methyl acetate	43	4.016	4.015	0.001	99	869695	350.0	365.2	
31 Methylene Chloride	84	4.211	4.209	0.002	99	399535	175.0	182.7	
32 2-Methyl-2-propanol	59	4.497	4.471	0.026	98	504751	1750.0	1642.7	
33 Acrylonitrile	53	4.594	4.593	0.002	99	2037753	1750.0	1854.0	
34 trans-1,2-Dichloroethene	96	4.625	4.623	0.001	96	379604	175.0	175.8	
35 Methyl tert-butyl ether	73	4.643	4.635	0.008	99	1191395	175.0	183.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.038	5.043	-0.005	95	668602	175.0	176.2	
37 1,1-Dichloroethane	63	5.257	5.256	0.001	96	736757	175.0	180.5	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1093622	175.0	183.7	
44 2,2-Dichloropropane	97	5.993	5.992	0.001	92	98205	175.0	179.7	
45 cis-1,2-Dichloroethene	96	5.999	6.004	-0.005	84	440120	175.0	183.1	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	675747	350.0	331.1	
49 Chlorobromomethane	128	6.285	6.284	0.001	93	193171	175.0	182.1	
51 Tetrahydrofuran	42	6.304	6.296	0.008	94	375950	350.0	370.1	
52 Chloroform	83	6.431	6.430	0.001	96	636895	175.0	176.0	
53 1,1,1-Trichloroethane	97	6.589	6.594	-0.005	98	516491	175.0	176.1	
54 Cyclohexane	56	6.656	6.655	0.001	94	778625	175.0	178.3	
56 Carbon tetrachloride	117	6.760	6.758	0.002	96	448401	175.0	173.9	
55 1,1-Dichloropropene	75	6.772	6.776	-0.004	93	546560	175.0	177.3	
57 Isobutyl alcohol	41	6.979	6.977	0.002	96	500943	4375.0	4614.4	
58 Benzene	78	6.991	6.989	0.002	98	1577529	175.0	175.2	
59 1,2-Dichloroethane	62	7.064	7.068	-0.004	97	537767	175.0	181.4	
62 n-Heptane	43	7.350	7.348	0.002	96	603889	175.0	174.6	
64 Trichloroethene	130	7.721	7.719	0.002	98	400484	175.0	181.6	
66 Methylcyclohexane	83	7.952	7.957	-0.005	96	657704	175.0	175.4	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	438885	175.0	175.3	
68 Dibromomethane	93	8.080	8.078	0.002	94	226707	175.0	175.4	
70 1,4-Dioxane	88	8.080	8.084	-0.004	40	88641	3500.0	3779.9	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	495018	175.0	180.7	
73 2-Chloroethyl vinyl ether	63	8.579	8.577	0.002	93	617167	350.0	366.4	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	667160	175.0	182.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.875	0.002	97	1277910	350.0	338.7	
76 Toluene	91	9.047	9.052	-0.005	98	1681283	175.0	166.5	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	591362	175.0	172.8	
78 Ethyl methacrylate	69	9.357	9.356	0.001	93	626604	175.0	172.3	
79 1,1,2-Trichloroethane	97	9.491	9.496	-0.005	92	350713	175.0	171.9	
80 Tetrachloroethene	164	9.558	9.563	-0.005	98	331372	175.0	171.6	
81 1,3-Dichloropropane	76	9.649	9.648	0.001	97	619625	175.0	172.3	
82 2-Hexanone	43	9.704	9.709	-0.005	98	978798	350.0	326.8	
84 Chlorodibromomethane	129	9.862	9.861	0.001	91	346026	175.0	175.0	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	341661	175.0	169.0	
86 3-Chlorobenzotrifluoride	180	10.434	10.439	-0.005	94	614470	175.0	177.8	
87 Chlorobenzene	112	10.465	10.463	0.002	94	1087528	175.0	169.3	
88 4-Chlorobenzotrifluoride	180	10.525	10.524	0.001	96	584269	175.0	176.9	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	95	376787	175.0	172.6	
90 Ethylbenzene	106	10.562	10.560	0.002	98	606102	175.0	171.1	
91 m-Xylene & p-Xylene	106	10.696	10.694	0.002	0	748663	175.0	172.4	
92 o-Xylene	106	11.073	11.071	0.002	97	724488	175.0	169.6	
93 Styrene	104	11.097	11.096	0.001	95	1229204	175.0	169.1	
94 Bromoform	173	11.280	11.278	0.002	98	246235	175.0	175.2	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	98	610154	175.0	176.4	
97 Isopropylbenzene	105	11.444	11.442	0.002	97	1739655	175.0	166.0	
100 Bromobenzene	156	11.754	11.753	0.001	96	437254	175.0	173.3	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	79	470241	175.0	169.2	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	88	177867	175.0	178.0	
101 1,2,3-Trichloropropane	110	11.809	11.814	-0.005	88	151444	175.0	179.6	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	503370	175.0	170.5	
104 2-Chlorotoluene	126	11.949	11.947	0.002	96	429562	175.0	172.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	95	465106	175.0	173.4	
106 1,3,5-Trimethylbenzene	105	12.040	12.045	-0.005	94	1417182	175.0	167.5	
107 4-Chlorotoluene	126	12.071	12.069	0.002	97	461546	175.0	178.0	
108 tert-Butylbenzene	119	12.357	12.355	0.002	94	1229844	175.0	167.7	
110 1,2,4-Trimethylbenzene	105	12.417	12.416	0.001	97	1444257	175.0	168.5	
111 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	99	452248	175.0	176.2	
112 sec-Butylbenzene	105	12.582	12.580	0.002	95	1671080	175.0	167.5	
113 1,3-Dichlorobenzene	146	12.697	12.696	0.001	97	809393	175.0	173.3	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1443989	175.0	168.1	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	94	818434	175.0	170.3	
116 2,4-Dichloro-1-(trifluorom	214	12.831	12.830	0.001	96	422533	175.0	176.1	
118 2,5-Dichlorobenzotrifluori	214	12.874	12.872	0.002	0	469476	175.0	175.5	
120 n-Butylbenzene	91	13.147	13.146	0.001	97	1246354	175.0	169.3	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	96	749586	175.0	170.9	
122 1,2-Dibromo-3-Chloropropan	75	13.950	13.955	-0.005	83	101450	175.0	178.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.090	14.095	-0.005	0	1625773	525.0	509.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.515	-0.005	0	1157680	350.0	343.6	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	429547	175.0	172.2	
127 Hexachlorobutadiene	225	14.918	14.922	-0.004	95	187630	175.0	170.2	
128 Naphthalene	128	15.039	15.038	0.001	98	1347013	175.0	170.9	
129 1,2,3-Trichlorobenzene	180	15.264	15.269	-0.005	95	400531	175.0	172.9	
131 2,4,5-Trichlorotoluene	159	16.037	16.036	0.002	0	241394	175.0	168.5	
130 2,3,6-Trichlorotoluene	159	16.134	16.133	0.001	96	217169	175.0	166.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	341.9	
S 134 1,2-Dichloroethene, Total	96				0		350.0	358.9	
S 135 1,3-Dichloropropene, Total	1				0		350.0	355.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 7.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 9.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 7.00	Units: uL
voaWKetmix1st_00003	Amount Added: 7.00	Units: uL
voaW2clev1stR_00008	Amount Added: 7.00	Units: uL
voaWVA1stRest_00015	Amount Added: 7.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 7.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D

Injection Date: 08-Jun-2017 08:11:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD35

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

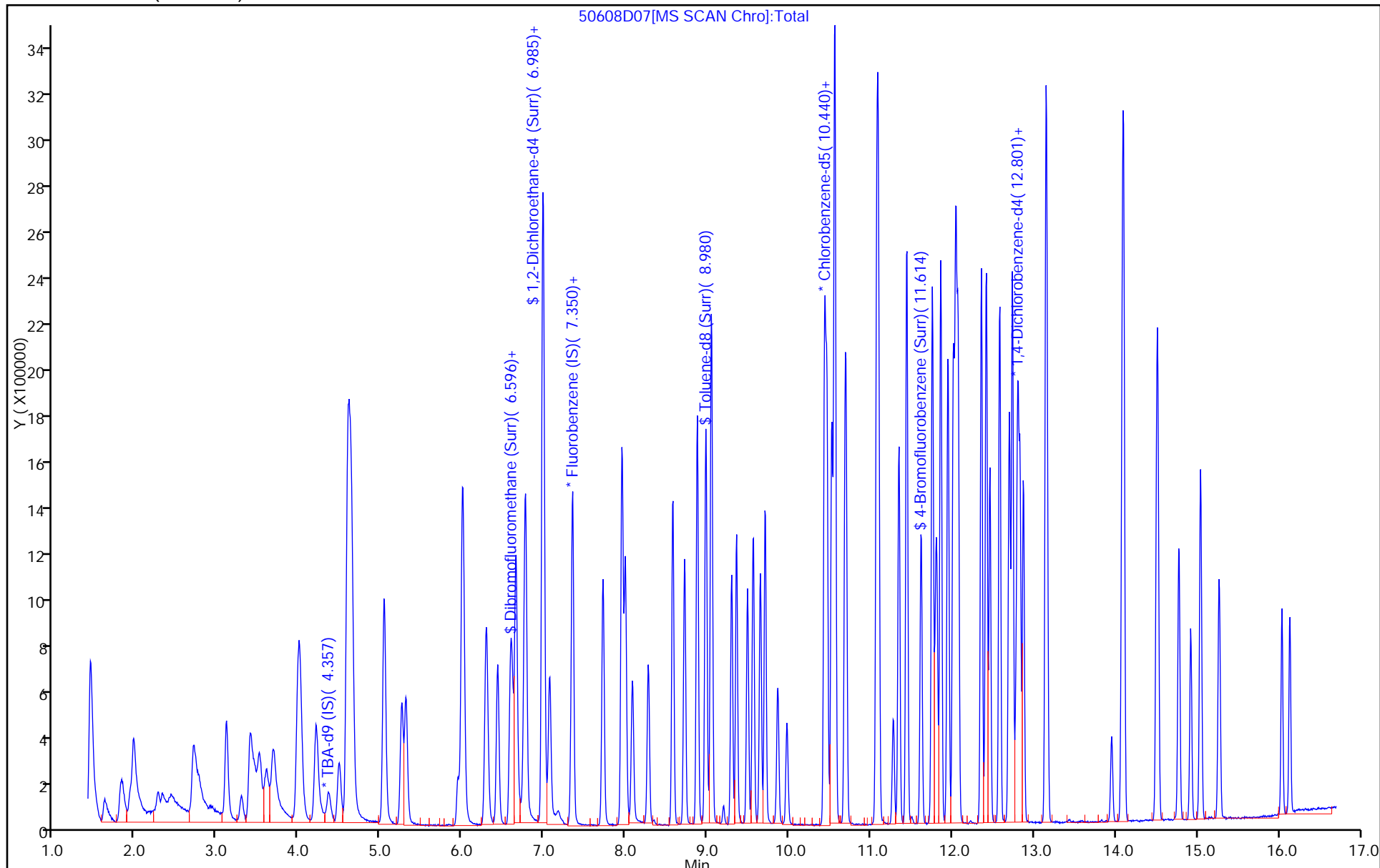
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

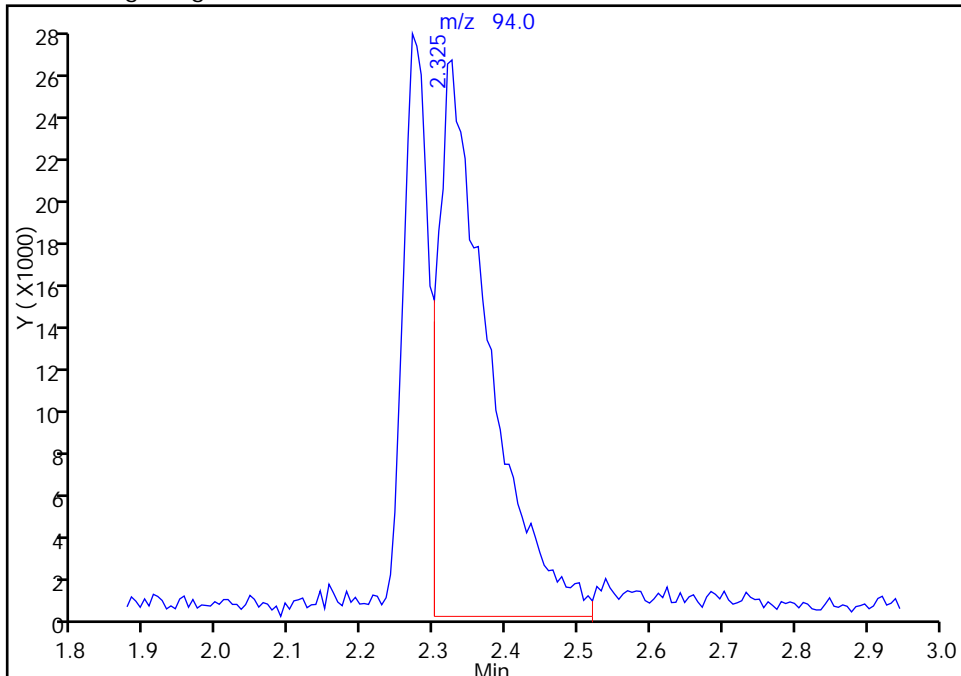
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D07.D
Injection Date: 08-Jun-2017 08:11:30 Instrument ID: CHHP5
Lims ID: IC VSTD35
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

15 Bromomethane, CAS: 74-83-9

Signal: 1

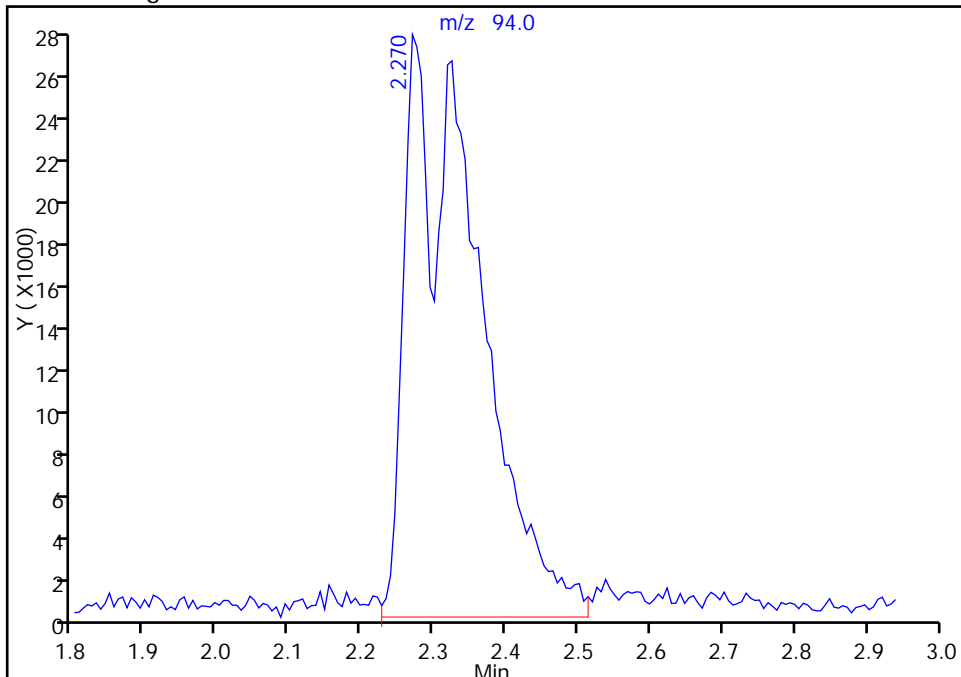
RT: 2.32
Area: 129320
Amount: 105.6042
Amount Units: ng

Processing Integration Results



RT: 2.27
Area: 193127
Amount: 170.0468
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 08-Jun-2017 08:55:59
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D08.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 08-Jun-2017 08:35:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-008
 Misc. Info.: IC VSTD40
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:52:11 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 08-Jun-2017 08:58:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.363	4.343	0.020	0	219952	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	98	322706	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.433	0.001	53	95100	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.781	-0.005	91	122807	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.608	6.612	-0.004	94	336435	200.0	203.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.985	6.983	0.002	0	452860	200.0	199.1	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.979	0.001	93	1333199	200.0	175.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.613	0.002	89	556606	200.0	184.3	
11 Dichlorodifluoromethane	85	1.626	1.630	-0.004	99	320286	200.0	183.2	
12 Chloromethane	50	1.826	1.831	-0.005	100	503528	200.0	180.2	
13 Vinyl chloride	62	1.942	1.940	0.002	98	416057	200.0	186.4	
14 Butadiene	39	1.972	1.977	-0.005	93	331808	200.0	186.6	
15 Bromomethane	94	2.313	2.311	0.002	90	199546	200.0	170.5	
16 Chloroethane	64	2.441	2.451	-0.010	99	242959	200.0	196.3	
18 Trichlorofluoromethane	101	2.714	2.719	-0.005	88	443285	200.0	201.4	
17 Dichlorofluoromethane	67	2.714	2.725	-0.011	94	619199	200.0	205.0	
20 Ethyl ether	59	3.110	3.108	0.002	96	427535	200.0	202.0	
21 Acrolein	56	3.292	3.297	-0.005	98	186572	250.0	276.6	
22 1,1-Dichloroethene	96	3.408	3.400	0.008	96	410531	200.0	217.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.451	3.455	-0.004	91	326722	200.0	209.3	
24 Acetone	43	3.511	3.510	0.001	99	462297	400.0	373.4	
25 Iodomethane	142	3.603	3.601	0.002	98	581438	200.0	207.9	
26 Carbon disulfide	76	3.688	3.686	0.002	100	1034498	200.0	198.2	
28 3-Chloro-1-propene	76	3.992	3.990	0.002	90	325365	200.0	207.5	
30 Methyl acetate	43	4.016	4.015	0.001	99	1054265	400.0	429.7	
31 Methylene Chloride	84	4.211	4.209	0.002	98	426256	200.0	189.1	
32 2-Methyl-2-propanol	59	4.485	4.471	0.014	98	469244	2000.0	1710.0	
33 Acrylonitrile	53	4.594	4.593	0.002	99	2193876	2000.0	1937.3	
34 trans-1,2-Dichloroethene	96	4.625	4.623	0.002	96	398038	200.0	178.9	
35 Methyl tert-butyl ether	73	4.643	4.635	0.008	99	1279855	200.0	191.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.038	5.043	-0.005	95	675938	200.0	172.9	
37 1,1-Dichloroethane	63	5.257	5.256	0.001	96	853476	200.0	203.0	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1233778	200.0	201.1	
44 2,2-Dichloropropane	97	6.000	5.992	0.008	93	106967	200.0	190.0	
45 cis-1,2-Dichloroethene	96	6.000	6.004	-0.004	84	491702	200.0	198.5	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	732742	400.0	348.5	
49 Chlorobromomethane	128	6.285	6.284	0.001	94	218627	200.0	200.0	
51 Tetrahydrofuran	42	6.298	6.296	0.002	91	424882	400.0	406.5	
52 Chloroform	83	6.431	6.430	0.001	95	725704	200.0	194.6	
53 1,1,1-Trichloroethane	97	6.584	6.594	-0.010	98	560443	200.0	185.4	
54 Cyclohexane	56	6.657	6.655	0.002	94	876870	200.0	194.9	
56 Carbon tetrachloride	117	6.760	6.758	0.002	96	503927	200.0	189.7	
55 1,1-Dichloropropene	75	6.772	6.776	-0.004	93	612031	200.0	192.6	
57 Isobutyl alcohol	41	6.979	6.977	0.002	93	553306	5000.0	4946.8	
58 Benzene	78	6.991	6.989	0.002	99	1788795	200.0	192.8	
59 1,2-Dichloroethane	62	7.070	7.068	0.002	96	620368	200.0	203.2	
62 n-Heptane	43	7.350	7.348	0.002	95	655443	200.0	183.9	
64 Trichloroethene	130	7.721	7.719	0.002	97	445239	200.0	196.0	
66 Methylcyclohexane	83	7.952	7.957	-0.005	96	724486	200.0	187.5	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	513159	200.0	198.9	
68 Dibromomethane	93	8.080	8.078	0.002	95	263730	200.0	198.1	
70 1,4-Dioxane	88	8.080	8.084	-0.004	40	104236	4000.0	4314.1	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	570917	200.0	202.2	
73 2-Chloroethyl vinyl ether	63	8.579	8.577	0.002	93	706913	400.0	407.4	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	762600	200.0	202.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.875	0.002	97	1449023	400.0	349.9	
76 Toluene	91	9.047	9.052	-0.005	97	1880344	200.0	169.6	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	683392	200.0	181.9	
78 Ethyl methacrylate	69	9.358	9.356	0.002	93	716406	200.0	179.5	
79 1,1,2-Trichloroethane	97	9.491	9.496	-0.005	92	401520	200.0	179.3	
80 Tetrachloroethene	164	9.558	9.563	-0.005	98	372604	200.0	175.7	
81 1,3-Dichloropropane	76	9.650	9.648	0.002	97	720290	200.0	182.5	
82 2-Hexanone	43	9.704	9.709	-0.005	97	1071544	400.0	326.0	
84 Chlorodibromomethane	129	9.863	9.861	0.002	91	397752	200.0	183.2	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	398884	200.0	179.8	
86 3-Chlorobenzotrifluoride	180	10.434	10.439	-0.005	91	709603	200.0	187.1	
87 Chlorobenzene	112	10.465	10.463	0.002	96	1240825	200.0	176.0	
88 4-Chlorobenzotrifluoride	180	10.526	10.524	0.002	96	672658	200.0	185.6	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	96	432680	200.0	180.6	
90 Ethylbenzene	106	10.562	10.560	0.002	99	676281	200.0	173.9	
91 m-Xylene & p-Xylene	106	10.696	10.694	0.002	0	850193	200.0	178.3	
92 o-Xylene	106	11.073	11.071	0.002	97	816773	200.0	174.1	
93 Styrene	104	11.097	11.096	0.001	95	1401938	200.0	175.7	
94 Bromoform	173	11.274	11.278	-0.004	97	286980	200.0	186.0	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	96	691733	200.0	182.2	
97 Isopropylbenzene	105	11.444	11.442	0.002	97	1945195	200.0	169.1	
99 1,1,2,2-Tetrachloroethane	83	11.754	11.753	0.001	94	552518	200.0	181.1	
100 Bromobenzene	156	11.754	11.753	0.001	96	504414	200.0	196.2	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	86	203354	200.0	199.7	
101 1,2,3-Trichloropropane	110	11.809	11.814	-0.005	85	174213	200.0	202.9	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	566124	200.0	188.1	
104 2-Chlorotoluene	126	11.949	11.947	0.002	97	489826	200.0	192.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	95	536156	200.0	196.1	
106 1,3,5-Trimethylbenzene	105	12.040	12.045	-0.005	95	1602983	200.0	185.9	
107 4-Chlorotoluene	126	12.071	12.069	0.002	97	515598	200.0	195.0	
108 tert-Butylbenzene	119	12.357	12.355	0.002	94	1375238	200.0	183.9	
110 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	97	1628727	200.0	186.4	
111 1,2-dichloro-4-(trifluorom	214	12.460	12.458	0.002	99	522959	200.0	199.9	
112 sec-Butylbenzene	105	12.582	12.580	0.002	95	1846550	200.0	181.6	
113 1,3-Dichlorobenzene	146	12.697	12.696	0.001	97	922963	200.0	193.9	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1609019	200.0	183.8	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	94	946901	200.0	193.3	
116 2,4-Dichloro-1-(trifluorom	214	12.831	12.830	0.001	96	497310	200.0	203.3	
118 2,5-Dichlorobenzotrifluori	214	12.868	12.872	-0.004	0	547248	200.0	200.7	
120 n-Butylbenzene	91	13.142	13.146	-0.004	97	1382118	200.0	184.2	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	97	864638	200.0	193.3	
122 1,2-Dibromo-3-Chloropropan	75	13.951	13.955	-0.004	84	119400	200.0	206.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.095	-0.004	0	1870903	600.0	574.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.510	14.515	-0.005	0	1323377	400.0	385.3	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	497586	200.0	195.7	
127 Hexachlorobutadiene	225	14.924	14.922	0.002	97	205503	200.0	182.8	
128 Naphthalene	128	15.040	15.038	0.002	98	1545157	200.0	192.3	
129 1,2,3-Trichlorobenzene	180	15.265	15.269	-0.004	95	462732	200.0	196.0	
131 2,4,5-Trichlorotoluene	159	16.037	16.036	0.002	0	280260	200.0	191.9	
130 2,3,6-Trichlorotoluene	159	16.135	16.133	0.002	97	254778	200.0	191.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	377.5	
S 133 Xylenes, Total	106				0		400.0	352.5	
S 135 1,3-Dichloropropene, Total	1				0		400.0	384.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00255	Amount Added: 8.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 10.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 8.00	Units: uL
voaWKetmix1st_00003	Amount Added: 8.00	Units: uL
voaW2clev1stR_00008	Amount Added: 8.00	Units: uL
voaWVA1stRest_00015	Amount Added: 8.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 8.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D08.D

Injection Date: 08-Jun-2017 08:35:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD40

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

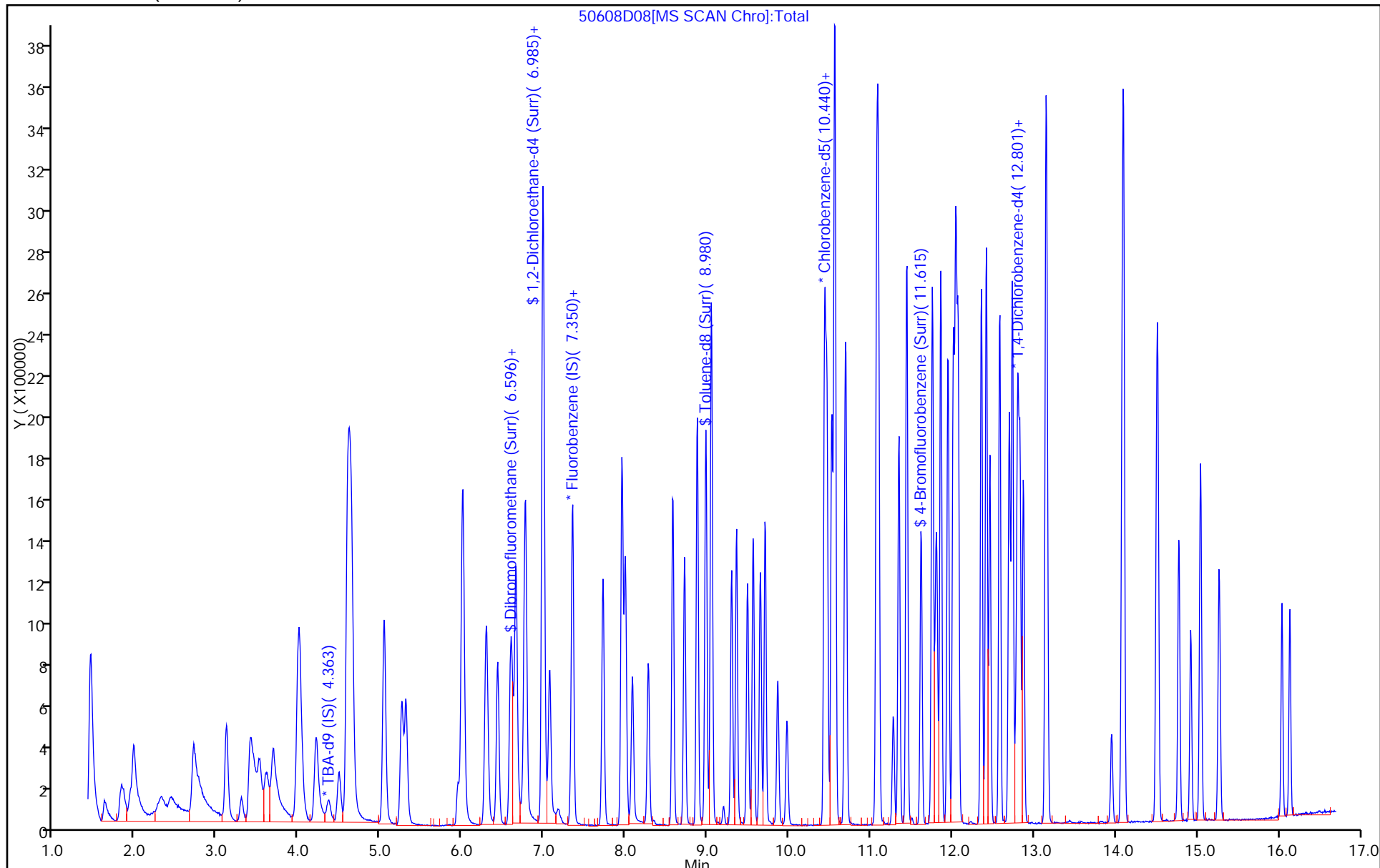
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 08-Jun-2017 08:59:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-009
 Misc. Info.: IC VSTD50
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:52:14 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 09-Jun-2017 03:09:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.376	4.343	0.033	0	225322	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.332	7.336	-0.004	99	325167	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.435	10.433	0.002	61	93222	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.777	12.781	-0.004	93	126931	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.608	6.612	-0.004	94	412655	250.0	248.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.979	6.983	-0.004	0	548631	250.0	239.3	
\$ 7 Toluene-d8 (Surr)	98	8.981	8.979	0.002	93	1616941	250.0	216.7	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.613	0.002	88	681987	250.0	230.3	
11 Dichlorodifluoromethane	85	1.620	1.630	-0.010	98	383674	250.0	217.8	
12 Chloromethane	50	1.821	1.831	-0.010	99	660580	250.0	234.6	
13 Vinyl chloride	62	1.936	1.940	-0.004	97	544552	250.0	242.1	
14 Butadiene	39	1.979	1.977	0.002	93	463060	250.0	265.3	
15 Bromomethane	94	2.289	2.311	-0.022	90	228806	250.0	194.7	
16 Chloroethane	64	2.423	2.451	-0.028	99	284483	250.0	228.8	
18 Trichlorofluoromethane	101	2.709	2.719	-0.010	88	500610	250.0	225.8	
17 Dichlorofluoromethane	67	2.709	2.725	-0.016	93	684695	250.0	225.6	
20 Ethyl ether	59	3.110	3.108	0.002	94	425913	250.0	199.7	
21 Acrolein	56	3.293	3.297	-0.004	99	163186	275.0	240.1	
22 1,1-Dichloroethene	96	3.402	3.400	0.002	97	420571	250.0	221.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.445	3.455	-0.010	94	367239	250.0	233.5	M
24 Acetone	43	3.518	3.510	0.008	100	540944	500.0	519.9	
25 Iodomethane	142	3.597	3.601	-0.004	98	662319	250.0	235.1	
26 Carbon disulfide	76	3.688	3.686	0.002	99	1147403	250.0	218.1	
28 3-Chloro-1-propene	76	3.986	3.990	-0.004	90	373044	250.0	236.1	
30 Methyl acetate	43	4.017	4.015	0.002	99	1222074	500.0	494.4	
31 Methylene Chloride	84	4.211	4.209	0.002	99	547979	250.0	241.3	
32 2-Methyl-2-propanol	59	4.497	4.471	0.026	98	800812	2500.0	2848.7	
33 Acrylonitrile	53	4.595	4.593	0.003	98	2839818	2500.0	2488.7	
34 trans-1,2-Dichloroethene	96	4.619	4.623	-0.004	97	514686	250.0	229.6	
35 Methyl tert-butyl ether	73	4.649	4.635	0.014	99	1662995	250.0	247.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.039	5.043	-0.004	95	881434	250.0	223.8	
37 1,1-Dichloroethane	63	5.252	5.256	-0.004	96	1006985	250.0	237.7	
38 Vinyl acetate	43	5.306	5.310	-0.004	97	1478910	250.0	239.3	
44 2,2-Dichloropropane	97	6.000	5.992	0.008	90	123055	250.0	216.9	
45 cis-1,2-Dichloroethene	96	6.000	6.004	-0.004	84	609918	250.0	244.4	
46 2-Butanone (MEK)	43	6.018	6.010	0.008	99	942332	500.0	444.8	
49 Chlorobromomethane	128	6.286	6.284	0.002	93	266776	250.0	242.2	
51 Tetrahydrofuran	42	6.304	6.296	0.008	91	517849	500.0	493.0	
52 Chloroform	83	6.432	6.430	0.002	95	888887	250.0	236.6	
53 1,1,1-Trichloroethane	97	6.590	6.594	-0.004	98	679603	250.0	223.2	
54 Cyclohexane	56	6.657	6.655	0.002	94	1057958	250.0	233.3	
56 Carbon tetrachloride	117	6.754	6.758	-0.004	95	600003	250.0	224.2	
55 1,1-Dichloropropene	75	6.773	6.776	-0.004	92	725621	250.0	226.7	
57 Isobutyl alcohol	41	6.985	6.977	0.008	98	670610	6250.0	5950.2	
58 Benzene	78	6.992	6.989	0.003	97	2136842	250.0	228.5	
59 1,2-Dichloroethane	62	7.071	7.068	0.003	96	751563	250.0	244.3	
62 n-Heptane	43	7.350	7.348	0.002	95	782163	250.0	217.8	
64 Trichloroethene	130	7.722	7.719	0.003	98	544845	250.0	238.0	
66 Methylcyclohexane	83	7.953	7.957	-0.004	95	869390	250.0	223.3	
67 1,2-Dichloropropane	63	7.995	7.993	0.002	95	623779	250.0	239.9	
68 Dibromomethane	93	8.080	8.078	0.002	94	323707	250.0	241.3	
70 1,4-Dioxane	88	8.080	8.084	-0.004	98	125075	5000.0	5137.5	
71 Dichlorobromomethane	83	8.275	8.273	0.002	98	679054	250.0	238.7	
73 2-Chloroethyl vinyl ether	63	8.573	8.577	-0.004	93	833749	500.0	476.8	
74 cis-1,3-Dichloropropene	75	8.719	8.717	0.002	92	917359	250.0	241.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.875	0.002	97	1715061	500.0	422.5	
76 Toluene	91	9.048	9.052	-0.004	97	2215068	250.0	203.8	
77 trans-1,3-Dichloropropene	75	9.297	9.295	0.002	98	814568	250.0	221.2	
78 Ethyl methacrylate	69	9.358	9.356	0.002	93	856567	250.0	218.9	
79 1,1,2-Trichloroethane	97	9.492	9.496	-0.004	92	480707	250.0	219.0	
80 Tetrachloroethene	164	9.559	9.563	-0.004	97	444805	250.0	214.0	
81 1,3-Dichloropropane	76	9.650	9.648	0.002	97	875399	250.0	226.2	
82 2-Hexanone	43	9.705	9.709	-0.004	97	1334896	500.0	414.3	
84 Chlorodibromomethane	129	9.863	9.861	0.002	91	482702	250.0	226.8	
85 Ethylene Dibromide	107	9.972	9.976	-0.004	98	484529	250.0	222.8	
86 3-Chlorobenzotrifluoride	180	10.435	10.439	-0.004	93	816927	250.0	219.7	
87 Chlorobenzene	112	10.459	10.463	-0.004	92	1483014	250.0	214.6	
88 4-Chlorobenzotrifluoride	180	10.520	10.524	-0.004	95	777912	250.0	218.9	
89 1,1,1,2-Tetrachloroethane	131	10.556	10.554	0.002	95	523309	250.0	222.8	
90 Ethylbenzene	106	10.563	10.560	0.003	98	819458	250.0	214.9	
91 m-Xylene & p-Xylene	106	10.690	10.694	-0.004	0	1032506	250.0	220.9	
92 o-Xylene	106	11.074	11.071	0.003	95	990376	250.0	215.4	
93 Styrene	104	11.098	11.096	0.002	95	1680161	250.0	214.8	
94 Bromoform	173	11.274	11.278	-0.004	97	342951	250.0	226.8	
96 2-Chlorobenzotrifluoride	180	11.347	11.345	0.002	97	821958	250.0	220.8	
97 Isopropylbenzene	105	11.439	11.442	-0.003	97	2314258	250.0	205.2	
100 Bromobenzene	156	11.755	11.753	0.002	95	616854	250.0	232.1	
99 1,1,2,2-Tetrachloroethane	83	11.755	11.753	0.002	80	656224	250.0	219.4	
102 trans-1,4-Dichloro-2-buten	53	11.791	11.795	-0.004	84	245313	250.0	233.1	
101 1,2,3-Trichloropropane	110	11.810	11.814	-0.004	86	215879	250.0	243.7	
103 N-Propylbenzene	120	11.858	11.856	0.002	98	698892	250.0	224.7	
104 2-Chlorotoluene	126	11.943	11.947	-0.004	96	593228	250.0	226.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.010	12.008	0.002	97	643177	250.0	227.5	
106 1,3,5-Trimethylbenzene	105	12.041	12.045	-0.004	97	1931146	250.0	216.6	
107 4-Chlorotoluene	126	12.071	12.069	0.002	96	633000	250.0	231.7	
108 tert-Butylbenzene	119	12.357	12.355	0.002	93	1658088	250.0	214.6	
110 1,2,4-Trimethylbenzene	105	12.418	12.416	0.002	97	2003753	250.0	221.9	
111 1,2-dichloro-4-(trifluorom	214	12.461	12.458	0.003	99	617023	250.0	228.2	
112 sec-Butylbenzene	105	12.576	12.580	-0.004	95	2236454	250.0	212.8	
113 1,3-Dichlorobenzene	146	12.698	12.696	0.002	97	1134229	250.0	230.5	
114 4-Isopropyltoluene	119	12.734	12.738	-0.004	96	1942455	250.0	214.7	
115 1,4-Dichlorobenzene	146	12.801	12.799	0.002	93	1155724	250.0	228.3	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.830	-0.004	96	595571	250.0	235.6	
118 2,5-Dichlorobenzotrifluori	214	12.868	12.872	-0.004	0	652964	250.0	231.7	
120 n-Butylbenzene	91	13.142	13.146	-0.004	97	1678668	250.0	216.5	
121 1,2-Dichlorobenzene	146	13.160	13.158	0.002	96	1076711	250.0	232.9	
122 1,2-Dibromo-3-Chloropropan	75	13.951	13.955	-0.004	85	144187	250.0	242.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.091	14.095	-0.004	0	2325266	750.0	691.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.511	14.515	-0.004	0	1680279	500.0	473.3	
126 1,2,4-Trichlorobenzene	180	14.772	14.776	-0.004	95	652178	250.0	248.1	
127 Hexachlorobutadiene	225	14.918	14.922	-0.004	97	269040	250.0	231.6	
128 Naphthalene	128	15.040	15.038	0.002	98	1993798	250.0	240.0	
129 1,2,3-Trichlorobenzene	180	15.265	15.269	-0.004	95	622398	250.0	255.1	
131 2,4,5-Trichlorotoluene	159	16.038	16.036	0.003	0	376576	250.0	249.5	
130 2,3,6-Trichlorotoluene	159	16.135	16.133	0.002	96	336770	250.0	244.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		500.0	436.3	
S 134 1,2-Dichloroethene, Total	96				0		500.0	474.0	
S 135 1,3-Dichloropropene, Total	1				0		500.0	462.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00255	Amount Added: 10.00	Units: uL
voaWAcro1stRe_00014	Amount Added: 11.00	Units: uL
voaWEEmix1stR_00007	Amount Added: 10.00	Units: uL
voaWKetmix1st_00003	Amount Added: 10.00	Units: uL
voaW2clev1stR_00008	Amount Added: 10.00	Units: uL
voaWVA1stRest_00015	Amount Added: 10.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 10.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D09.D

Injection Date: 08-Jun-2017 08:59:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD50

Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL

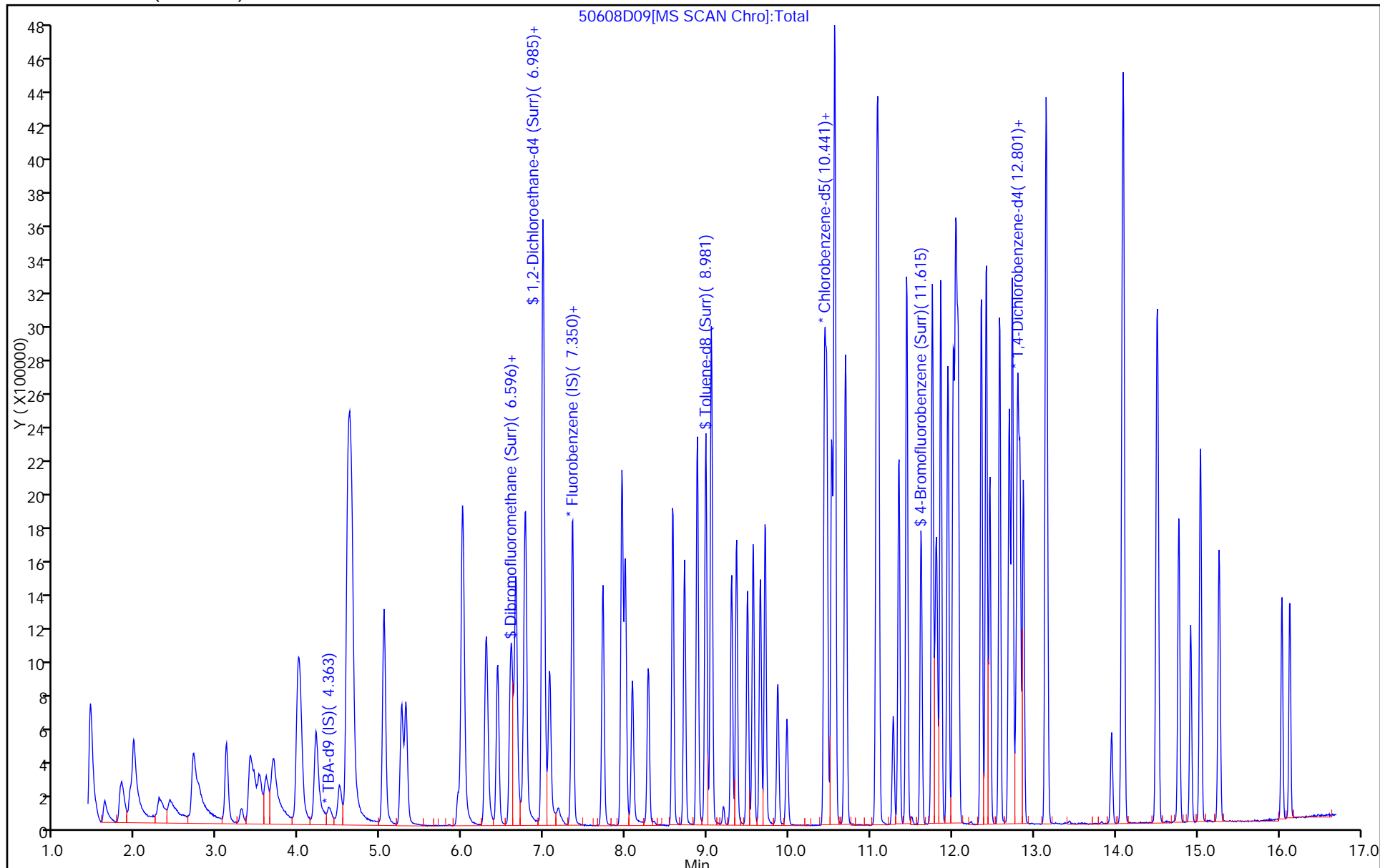
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

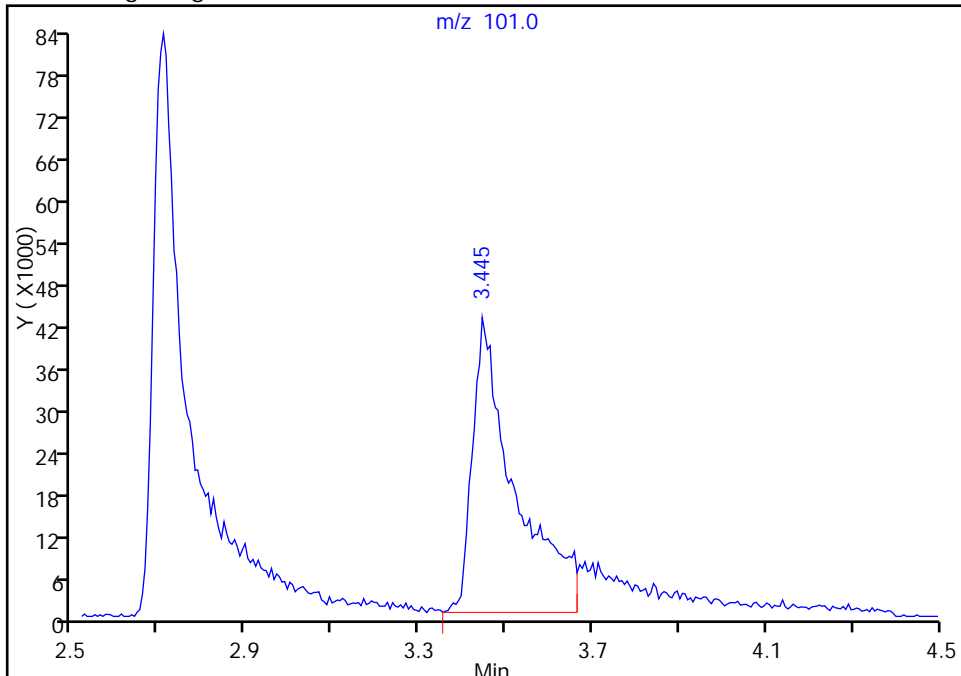
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Injection Date: 08-Jun-2017 08:59:30 Instrument ID: CHHP5
Lims ID: IC VSTD50
Client ID:
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

23 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

Signal: 1

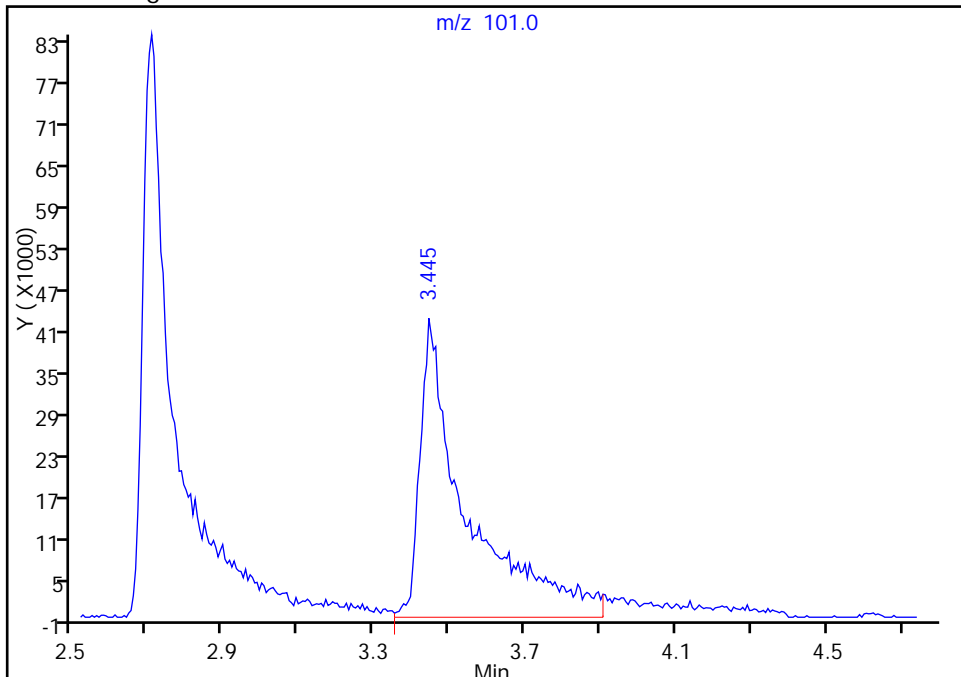
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Area: 286736
Amount: 183.8990
Amount Units: ng

Processing Integration Results



RT: 3.44
Area: 367239
Amount: 233.4906
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Jun-2017 03:08:59
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dichlorodifluoromethane	0.3099 0.3034	0.3143 0.2538	0.2964 0.2820	0.2910	0.2753	Ave		0.2907		0.1000	6.9		20.0				
Chloromethane	0.3638 0.2790	0.2935 0.2586	0.2871 0.2672	0.2979	0.2905	Ave		0.2922		0.1000	10.9		20.0				
Vinyl chloride	0.3612 0.2960	0.3073 0.2570	0.3014 0.2855	0.2838	0.2802	Ave		0.2965		0.1000	10.2		20.0				
1,3-Butadiene	0.3317 0.2714	0.2771 0.2281	0.2660 0.2684	0.2619	0.2505	Ave		0.2694		0.0100	10.9		20.0				
Bromomethane	0.1274 0.1338	0.1569 0.1290	0.1507 0.1244	0.1438	0.1556	Ave		0.1402		0.0500	9.4		20.0				
Chloroethane	0.1972 0.1593	0.1757 0.1437	0.1605 0.1363	0.1653	0.1659	Ave		0.1630		0.0500	11.5		20.0				
Trichlorofluoromethane	0.4130 0.3605	0.3896 0.3164	0.3801 0.3348	0.3631	0.3573	Ave		0.3643		0.1000	8.4		20.0				
Ethyl ether	0.2690 0.2226	0.2473 0.2272	0.2344 0.2016	0.2419	0.2520	Ave		0.2370		0.0100	8.6		20.0				
Acrolein	0.0588 0.0564	0.0546 0.0639	0.0629 0.0550	0.0633	0.0629	Ave		0.0597		0.0100	6.7		20.0				
1,1-Dichloroethene	0.2633 0.2529	0.2525 0.2180	0.2438 0.2452	0.2449	0.2377	Ave		0.2448		0.1000	5.4		20.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3346 0.2678	0.2745 0.2382	0.2615 0.2547	0.2644	0.2534	Ave		0.2686		0.1000	10.7		20.0				
Acetone	0.1396 0.1048	0.1447 0.1163	0.1388 0.1038	0.1460	0.1519	Ave		0.1308		0.0500	14.8		20.0				
Iodomethane	0.4213 0.3803	0.3860 0.3716	0.3712 0.3619	0.3906	0.3928	Ave		0.3845		0.0100	4.8		20.0				
Carbon disulfide	0.5698 ++++	0.4896 0.5397	0.4946 0.6108	0.5168	0.5392	Ave		0.5372		0.1000	8.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
Allyl chloride	0.1501 0.1710	0.1485 0.1632	0.1541 0.1645	0.1561	0.1579	Ave		0.1582			0.0100	4.8		20.0			
Methyl acetate	0.2888 0.2364	0.2463 0.2614	0.2631 0.2382	0.2688	0.2686	Ave		0.2589			0.1000	6.8		20.0			
Methylene Chloride	0.4748 0.2821	0.3152 0.2910	0.3044 0.2676	0.3112	0.3108	Lin2	0.9532	0.2841			0.1000				0.9980		0.9900
tert-Butyl alcohol	1.3346 1.2872	1.1570 1.0277	1.1638 1.2343	1.1314	1.1253	Ave		1.1826			0.0100	8.3		20.0			
Acrylonitrile	0.1353 0.1106	0.1251 0.1245	0.1313 0.1150	0.1320	0.1333	Ave		0.1259			0.0100	7.1		20.0			
trans-1,2-Dichloroethene	0.3167 0.2789	0.2730 0.2547	0.2727 0.2653	0.2850	0.2851	Ave		0.2789			0.1000	6.6		20.0			
Methyl tert-butyl ether	0.7081 0.7482	0.7314 0.7800	0.7230 0.7142	0.7872	0.7909	Ave		0.7479			0.1000	4.5		20.0			
Hexane	0.4597 0.3561	0.3588 0.3156	0.3449 0.3625	0.3424	0.3242	Ave		0.3580			0.0100	12.4		20.0			
1,1-Dichloroethane	0.5228 0.4797	0.4979 0.4638	0.4852 0.4528	0.4864	0.4910	Ave		0.4850			0.2000	4.4		20.0			
Vinyl acetate	0.5018 0.5003	0.4274 0.5345	0.4556 0.5012	0.5130	0.5116	Ave		0.4932			0.0100	7.0		20.0			
2,2-Dichloropropane	0.0696 0.0640	0.0591 0.0559	0.0577 0.0619	0.0627	0.0632	Ave		0.0617			0.0100	6.9		20.0			
cis-1,2-Dichloroethene	0.3297 0.3143	0.3194 0.3060	0.3200 0.2963	0.3326	0.3338	Ave		0.3190			0.1000	4.1		20.0			
2-Butanone (MEK)	0.1854 0.1607	0.1969 0.1772	0.1989 0.1584	0.2064	0.2051	Ave		0.1861			0.0500	10.2		20.0			
Bromochloromethane	0.1517 0.1366	0.1414 0.1398	0.1402 0.1299	0.1453	0.1494	Ave		0.1418			0.0100	4.9		20.0			
Tetrahydrofuran	0.1371 0.0928	0.0982 0.1088	0.1088 0.1003	0.1130	0.1079	Ave		0.1084			0.0100	12.4		20.0			
Chloroform	0.5466 0.4636	0.4996 0.4621	0.4713 0.4342	0.4992	0.4977	Ave		0.4843			0.2000	7.0		20.0			
1,1,1-Trichloroethane	0.3786 0.3800	0.3677 0.3465	0.3637 0.3610	0.3661	0.3690	Ave		0.3666			0.1000	2.9		20.0			
Cyclohexane	0.4979 0.4744	0.4616 0.4108	0.4435 0.4590	0.4424	0.4292	Ave		0.4524			0.1000	6.0		20.0			
Carbon tetrachloride	0.3181 0.3198	0.2990 0.2880	0.3018 0.3038	0.3054	0.3047	Ave		0.3051			0.1000	3.3		20.0			
1,1-Dichloropropene	0.4064 0.4059	0.4083 0.3679	0.3990 0.3876	0.4006	0.3928	Ave		0.3961			0.0100	3.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Isobutyl alcohol	0.0097 0.0085	0.0091 0.0105	0.0102 0.0094	0.0111	0.0112	Ave		0.0099		*	0.0100	9.6	20.0				
Benzene	1.3787 1.1520	1.2628 1.1081	1.2398 1.0692	1.2590	1.2563	Ave		1.2157			0.5000	8.2	20.0				
1,2-Dichloroethane	0.3884 0.3320	0.3554 0.3421	0.3528 0.3189	0.3753	0.3703	Ave		0.3544			0.1000	6.5	20.0				
n-Heptane	0.3037 0.2967	0.3011 0.2552	0.2860 0.3036	0.2755	0.2684	Ave		0.2863			0.0100	6.4	20.0				
Trichloroethene	0.3229 0.3036	0.3087 0.2884	0.3052 0.2920	0.3101	0.3167	Ave		0.3059			0.2000	3.8	20.0				
Methylcyclohexane	0.4727 0.4875	0.4672 0.4232	0.4697 0.4715	0.4601	0.4491	Ave		0.4626			0.1000	4.2	20.0				
1,2-Dichloropropane	0.3012 0.2794	0.2779 0.2782	0.2782 0.2612	0.2913	0.2975	Ave		0.2831			0.1000	4.6	20.0				
1,4-Dioxane	0.0022 0.0027	0.0028 0.0030	0.0031 0.0031	0.0030	0.0032	Ave		0.0029		*	0.0100	11.4	20.0				
Dibromomethane	0.1595 0.1606	0.1708 0.1667	0.1638 0.1549	0.1734	0.1774	Ave		0.1659			0.0100	4.6	20.0				
Bromodichloromethane	0.3001 0.3336	0.3125 0.3351	0.3169 0.3110	0.3438	0.3519	Ave		0.3256			0.2000	5.6	20.0				
2-Chloroethyl vinyl ether	0.1669 0.2025	0.1917 0.2176	0.2032 0.2031	0.2200	0.2248	Ave		0.2037			0.0100	9.1	20.0				
cis-1,3-Dichloropropene	0.3596 0.4128	0.3596 0.4158	0.3786 0.3959	0.4116	0.4298	Ave		0.3955			0.2000	6.8	20.0				
4-Methyl-2-pentanone (MIBK)	1.3560 1.1652	1.2491 1.2232	1.3592 1.1532	1.3610	1.3926	Ave		1.2824			0.1000	7.5	20.0				
Toluene	6.1005 4.5990	5.6903 4.2081	5.2159 4.0277	5.0185	5.0243	Ave		4.9855			0.4000	14.1	20.0				
trans-1,3-Dichloropropene	1.2257 1.4397	1.2796 1.4086	1.2851 1.3247	1.3956	1.4937	Ave		1.3566			0.1000	6.8	20.0				
Ethyl methacrylate	1.3604 1.6673	1.5623 1.6591	1.6724 1.5738	1.7698	1.8222	Ave		1.6359			0.0100	8.7	20.0				
1,1,2-Trichloroethane	1.2522 0.9633	1.0992 0.9427	1.0403 0.8887	1.0530	1.0694	Ave		1.0386			0.1000	10.8	20.0				
Tetrachloroethene	1.1481 0.9182	1.0929 0.8058	0.9505 0.8459	0.9238	0.9211	Ave		0.9508			0.2000	12.2	20.0				
1,3-Dichloropropane	2.2370 1.7852	2.0694 1.7532	1.9307 1.6348	1.9958	1.9532	Ave		1.9199			0.0100	10.0	20.0				
2-Hexanone	0.9818 0.8998	0.9941 0.9190	1.0485 0.8780	1.0518	1.0958	Ave		0.9836			0.1000	8.1	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Dibromochloromethane	0.7989 0.9016	0.8620 0.8947	0.8650 0.8322	0.9093	0.9598	Ave		0.8779			0.1000	5.7	20.0				
1,2-Dibromoethane (EDB)	1.1425 1.0146	1.0956 1.0059	1.0726 0.9575	1.1227	1.1100	Ave		1.0652			0.1000	6.1	20.0				
3-Chlorobenzotrifluoride	2.1508 1.6103	1.7646 1.4397	1.6777 1.5967	1.7670	1.7382	Ave		1.7181			0.0100	12.0	20.0				
Chlorobenzene	4.0368 3.0317	3.5186 2.8231	3.2468 2.6869	3.3119	3.3091	Ave		3.2456			0.5000	13.0	20.0				
4-Chlorobenzotrifluoride	1.8614 1.5230	1.6468 1.3432	1.5641 1.5178	1.6419	1.5859	Ave		1.5855			0.0100	9.3	20.0				
1,1,1,2-Tetrachloroethane	1.0682 1.0211	1.0658 0.9781	1.0366 0.9303	1.0666	1.0896	Ave		1.0321			0.0100	5.2	20.0				
Ethylbenzene	1.9199 1.7723	1.9530 1.6113	1.8804 1.6150	1.8616	1.8815	Ave		1.8119			0.1000	7.3	20.0				
m-Xylene & p-Xylene	2.1686 2.2054	2.4439 2.0173	2.3106 1.9980	2.2675	2.3006	Ave		2.2140			0.1000	6.8	20.0				
o-Xylene	2.1421 2.0826	2.2379 1.9206	2.1746 1.8793	2.2085	2.2321	Ave		2.1097			0.3000	6.6	20.0				
Styrene	3.6332 3.4371	3.9143 3.2595	3.7554 3.0478	3.7413	3.7778	Ave		3.5708			0.3000	8.3	20.0				
Bromoform	0.5105 0.5727	0.4852 0.5813	0.5106 0.5484	0.5622	0.5938	Ave		0.5456			0.1000	7.2	20.0				
2-Chlorobenzotrifluoride	1.7885 1.5489	1.7322 1.4506	1.6281 1.5406	1.7502	1.7146	Ave		1.6442			0.0100	7.4	20.0				
Isopropylbenzene	5.5110 4.9386	5.7732 4.4163	5.4683 4.3345	5.4199	5.3367	Ave		5.1498			0.1000	10.3	20.0				
Bromobenzene	0.9987 0.9743	0.9872 0.9390	0.9377 0.9146	0.9980	1.0140	Ave		0.9704			0.0100	3.7	20.0				
1,1,2,2-Tetrachloroethane	1.7609 1.4046	1.6228 1.4415	1.5952 1.3351	1.5862	1.5551	Ave		1.5377			0.3000	8.9	20.0				
trans-1,4-Dichloro-2-butene	0.2598 0.2949	0.2743 0.2979	0.2825 0.3083	0.3195	0.3037	Ave		0.2926			0.0100	6.6	20.0				
1,2,3-Trichloropropane	0.4104 0.3768	0.3859 0.3949	0.4160 0.3815	0.4181	0.4204	Ave		0.4005			0.0100	4.4	20.0				
N-Propylbenzene	1.0871 1.1604	1.1279 1.0214	1.1341 1.0987	1.1152	1.1268	Ave		1.1089			0.0100	3.8	20.0				
2-Chlorotoluene	0.9007 0.9835	0.9855 0.9238	0.9604 0.9321	0.9790	1.0033	Ave		0.9585			0.0100	3.7	20.0				
3-Chlorotoluene	1.0064 1.0049	1.0309 0.9798	1.0614 1.0388	1.1086	1.1105	Ave		1.0427			0.0100	4.6	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
1,3,5-Trimethylbenzene	3.0303 3.1789	3.4364 2.8871	3.3130 2.9071	3.3121	3.3198	Ave		3.1731			0.0100	6.6	20.0				
4-Chlorotoluene	1.0553 1.0614	1.0524 0.9741	1.0341 0.9970	1.0305	1.0761	Ave		1.0351			0.0100	3.3	20.0				
tert-Butylbenzene	2.5746 2.7227	2.8017 2.3880	2.7530 2.5138	2.7587	2.7116	Ave		2.6530			0.0100	5.5	20.0				
1,2,4-Trimethylbenzene	3.1254 3.2212	3.4166 2.9826	3.3711 2.9395	3.3815	3.3664	Ave		3.2255			0.0100	5.9	20.0				
3,4-Dichlorobenzotrifluoride	0.9400 0.7764	0.7679 0.7160	0.7941 0.8232	0.8410	0.8065	Ave		0.8081			0.0100	8.1	20.0				
sec-Butylbenzene	3.7533 3.7112	3.9865 3.2645	3.8932 3.4225	3.8001	3.7790	Ave		3.7013			0.0100	6.5	20.0				
1,3-Dichlorobenzene	1.8909 1.6927	1.7949 1.6042	1.7488 1.5884	1.7678	1.7840	Ave		1.7340			0.6000	5.8	20.0				
4-Isopropyltoluene	2.9547 3.1220	3.2883 2.7812	3.2665 2.8873	3.2019	3.1605	Ave		3.0828			0.0100	6.0	20.0				
1,4-Dichlorobenzene	1.9782 1.7336	1.8319 1.6481	1.8074 1.6177	1.8136	1.8124	Ave		1.7804			0.5000	6.4	20.0				
2,4-Dichlorobenzotrifluoride	0.7762 0.7410	0.7684 0.6560	0.7174 0.7931	0.7890	0.7781	Ave		0.7524			0.0100	6.2	20.0				
2,5-Dichlorobenzotrifluoride	0.8709 0.7991	0.7991 0.7661	0.8033 0.8193	0.8304	0.8133	Ave		0.8127			0.0100	3.7	20.0				
n-Butylbenzene	2.4429 2.5807	2.6260 2.2815	2.6042 2.4382	2.5661	2.5760	Ave		2.5144			0.0100	4.7	20.0				
1,2-Dichlorobenzene	1.8724 1.5966	1.7261 1.5319	1.6636 1.4748	1.6744	1.6818	Ave		1.6527			0.4000	7.4	20.0				
1,2-Dibromo-3-Chloropropane	0.1676 0.1857	0.1676 0.2001	0.1774 0.1873	0.1829	0.1992	Ave		0.1835			0.0500	6.8	20.0				
2,4- & 2,5- & 2,6- Dichlorotoluene	0.9836 1.0182	1.0277 0.9802	1.0819 1.0447	1.1339	1.1166	Ave		1.0483			0.0100	5.5	20.0				
2,3- & 3,4- Dichlorotoluene	0.9469 1.0658	1.0253 1.0486	1.0886 1.1261	1.1868	1.1843	Ave		1.0841			0.0100	7.5	20.0				
1,2,4-Trichlorobenzene	0.7563 0.7556	0.7184 0.7286	0.7717 0.7766	0.7671	0.7765	Ave		0.7563			0.2000	2.9	20.0				
Hexachlorobutadiene	0.2941 0.2697	0.2848 0.2377	0.2809 0.2898	0.2829	0.2739	Ave		0.2767			0.0100	6.4	20.0				
Naphthalene	2.0979 2.6004	2.2731 2.6494	2.6660 2.6327	2.8062	2.8819	Ave		2.5759			0.0100	10.2	20.0				
1,2,3-Trichlorobenzene	0.7106 0.6701	0.6788 0.6564	0.6707 0.7130	0.7070	0.7206	Ave		0.6909			0.0100	3.5	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218
 SDG No.: _____
 Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2,4,5-Trichlorotoluene	0.3224 0.3475	0.2818 0.3346	0.3064 ++++	0.3498	0.3564	Ave		0.3284			0.0100	8.2	20.0				
2,3,6-Trichlorotoluene	0.2545 0.3128	0.2731 0.3131	0.3085 ++++	0.3418	0.3347	Ave		0.3055			0.0100	10.3	20.0				
Dibromofluoromethane (Surr)	0.2565 0.2365	0.2433 0.2326	0.2366 0.2242	0.2475	0.2474	Ave		0.2406				4.2	20.0				
1,2-Dichloroethane-d4 (Surr)	0.3401 0.2693	0.3050 0.2801	0.2948 0.2619	0.3004	0.2957	Ave		0.2934				8.3	20.0				
Toluene-d8 (Surr)	5.1161 3.6702	4.5030 3.3148	4.0781 3.3147	3.9154	3.9228	Ave		3.9794				15.2	20.0				
4-Bromofluorobenzene (Surr)	1.6317 1.3781	1.5302 1.3139	1.4390 1.2793	1.4518	1.4735	Ave		1.4372				8.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 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	16788 647803	84559 569791	159957 857078	226899	286388	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	19706 595751	78965 580608	154943 811941	232300	302276	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	19568 632153	82670 577090	162634 867536	221295	291558	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	17968 579584	74553 512032	143576 815610	204212	260580	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	6901 285707	42224 289712	81346 377950	112119	161865	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	10685 340168	47273 322589	86601 414342	128899	172552	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	22371 769762	104824 710415	205127 1017488	283194	371684	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	14571 475422	66542 510033	126496 612640	188662	262150	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	63695 154738	73476 179414	101829 183852	115103	130923	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	14263 540044	67928 489503	131576 745282	190985	247279	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	18126 571742	73846 534815	141127 774058	206212	263603	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	37823 447756	77890 522287	149782 630881	227784	316026	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	22822 811997	103869 834240	200342 1099819	304618	408622	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	30868 +++++	131730 1211678	266935 1856339	403056	561008	5.00 +++++	25.0 200	50.0 250	75.0	100
Allyl chloride	FB	Ave	8133 365237	39946 366340	83167 500032	121734	164305	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Methyl acetate	FB	Ave	31286 1009713	132543 1173609	283974 1447736	419273	558912	10.0 350	50.0 400	100 500	150	200
Methylene Chloride	FB	Lin2	25720 602402	84822 653341	164284 813282	242665	323324	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBAd 9	Ave	16447 524619	64738 519054	139891 568135	204334	283777	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	73302 2362587	336508 2794353	708552 3495451	1029651	1387354	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	17158 595572	73445 571864	147191 806194	222245	296608	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	38357 1597553	196780 1751345	390184 2170401	613933	822838	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	24902 760411	96542 708650	186124 1101558	266987	337300	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	28319 1024340	133976 1041269	261874 1376176	379320	510811	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	27185 1068205	115000 1200052	245879 1523056	400099	532250	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	3769 136605	15889 125406	31118 188250	48893	65750	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	17858 671208	85931 687049	172690 900432	259385	347303	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	50216 686266	105960 795793	214731 962704	321867	426755	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	8216 291754	38047 313977	75687 394763	113290	155416	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	14858 396477	52866 488432	117485 609910	176266	224432	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	29608 989929	134431 1037446	254354 1319564	389323	517765	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	20508 811476	98927 777880	196286 1097196	285488	383868	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	26974 1012965	124196 922281	239333 1394833	345041	446560	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	17231 682784	80446 646700	162849 923177	238173	317033	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	22014 866715	109851 825970	215336 1178056	312373	408627	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	13122 452876	61305 587752	136973 715201	216532	290317	125 4375	625 5000	1250 6250	1875	2500
Benzene	FB	Ave	74686 2459963	339765 2487856	669098 3249284	981851	1307056	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	21038 708898	95627 767974	190422 969148	292683	385206	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	16453 633483	81002 573064	154370 922592	214813	279216	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	17490 648262	83072 647404	164695 887332	241861	329499	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	25605 1041060	125697 950167	253511 1432791	358781	467268	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	16316 596512	74777 624637	150135 793667	227133	309491	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2333 115916	15162 135844	33209 187034	46920	65688	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	8641 342853	45949 374289	88395 470836	135198	184529	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	16257 712434	84070 752352	171049 945026	268080	366097	5.00 175	25.0 200	50.0 250	75.0	100
2-Chloroethyl vinyl ether	FB	Ave	18086 864836	103158 977190	219328 1234429	343066	467677	10.0 350	50.0 400	100 500	150	200
cis-1,3-Dichloropropene	FB	Ave	19479 881560	96744 933591	204344 1203144	320956	447138	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBNZ d5	Ave	79892 1265241	154465 1476808	361112 1863520	542662	738839	25.0 350	50.0 400	100 500	150	200
Toluene	CBNZ d5	Ave	71883 2496911	351840 2540251	692901 3254284	1000479	1332783	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBNZ d5	Ave	14443 781619	79122 850338	170710 1070347	278226	396221	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBNZ d5	Ave	16030 905216	96602 1001550	222171 1271580	352819	483364	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBNZ d5	Ave	14755 523017	67966 569083	138196 718069	209928	283688	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBNZ d5	Ave	13528 498519	67579 486427	126273 683462	184171	244346	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBNZ d5	Ave	26359 969241	127957 1058308	256477 1320887	397870	518120	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBNZ d5	Ave	57842 977068	122936 1109580	278579 1418811	419354	581383	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBNZ d5	Ave	9414 489506	53302 540065	114911 672369	181267	254603	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBNZ d5	Ave	13462 550826	67745 607203	142489 773664	223815	294438	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBNZ d5	Ave	25343 874266	109109 869071	222871 1290067	352260	461082	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBNZ d5	Ave	47566 1645967	217561 1704167	431311 2170926	660247	877804	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBNZ d5	Ave	21933 826850	101825 810848	207774 1226371	327327	420704	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBNZ d5	Ave	12587 554351	65901 590452	137710 751692	212641	289044	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBNZ d5	Ave	22622 962208	120759 972676	249792 1304914	371119	499116	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBNZ d5	Ave	25553 1197380	151114 1217768	306948 1614353	452043	610286	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBNZ d5	Ave	25240 1130677	138375 1159372	288885 1518391	440285	592117	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBNZ d5	Ave	42810 1866053	242031 1967591	498873 2462559	745860	1002147	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBNZ d5	Ave	6015 310948	30000 350923	67829 443094	112077	157509	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBNZ d5	Ave	21074 840920	107103 875687	216286 1244752	348911	454842	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBNZ d5	Ave	64937 2681266	356966 2665903	726432 3502176	1080505	1415676	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCBd 4	Ave	16032 659984	83376 711710	163748 889999	261052	348475	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	20749 762601	100341 870164	211912 1078742	316221	412534	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCBd 4	Ave	4170 199800	23168 225821	49334 299994	83561	104361	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCBd 4	Ave	6588 255265	32588 299299	72643 371250	109372	144469	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCBd 4	Ave	17451 786064	95261 774184	198029 1069171	291693	387234	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCBd 4	Ave	14458 666236	83234 700158	167713 907016	256066	344800	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCBd 4	Ave	16155 680717	87067 742625	185343 1010916	289960	381649	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCBd 4	Ave	48645 2153457	290219 2188229	578518 2828999	866332	1140888	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCBd 4	Ave	16940 719035	88877 738280	180584 970169	269544	369832	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCBd 4	Ave	41329 1844417	236619 1809964	480729 2446270	721573	931884	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCBd 4	Ave	50171 2182090	288545 2260604	588662 2860516	884487	1156912	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCBd 4	Ave	15090 525922	64854 542681	138659 801099	219982	277157	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCBd 4	Ave	60251 2514051	336681 2474312	679839 3330508	993968	1298722	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCBd 4	Ave	30355 1146674	151590 1215884	305374 1545747	462404	613101	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCBd 4	Ave	47431 2114911	277710 2107989	570403 2809716	837492	1086140	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCBd 4	Ave	31756 1174377	154714 1249173	315614 1574222	474362	622850	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCBd 4	Ave	12460 501975	64892 497225	125268 771761	206368	267418	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCBd 4	Ave	13980 541324	67486 580659	140272 797256	217211	279514	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCBd 4	Ave	39215 1748217	221777 1729209	454742 2372703	671190	885288	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCBd 4	Ave	30057 1081541	145778 1161072	290492 1435184	437966	577962	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	2690 125814	14158 151695	30986 182290	47827	68470	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCBd 4	Ave	47367 2069215	260387 2228710	566788 3049908	889724	1151252	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCBd 4	Ave	30402 1443949	173187 1589536	380181 2191624	620870	814032	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCBd 4	Ave	12140 511830	60672 552245	134753 755690	200638	266863	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCBd 4	Ave	4721 182711	24054 180140	49048 282046	73984	94134	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCBd 4	Ave	33677 1761559	191971 2008065	465533 2561966	733996	990398	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCBd 4	Ave	11407 453926	57325 497473	117120 693791	184932	247660	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCBd 4	Ave	5175 235417	23799 253594	53498 ++++	91488	122498	5.00 175	25.0 200	50.0 ++++	75.0	100
2,3,6-Trichlorotoluene	DCBd 4	Ave	4086 211883	23065 237299	53869 ++++	89402	115009	5.00 175	25.0 200	50.0 ++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	13893 505019	65453 522323	127700 681339	193042	257355	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	18421 575099	82071 628942	159071 795993	234269	307676	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBNZ d5	Ave	60283 1992609	278432 2000995	541748 2678162	780569	1040595	5.00 175	25.0 200	50.0 250	75.0	100

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7	LVL 8			LVL 6	LVL 7	LVL 8		
4-Bromofluorobenzene (Surr)	CBNZ d5	Ave	19227 748217	94618 793129	191158 1033645	289432	390879	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-218218/2	50727D02.D
Level 2	IC 180-218218/3	50727D03.D
Level 3	ICIS 180-218218/4	50727D04.D
Level 4	IC 180-218218/5	50727D05.D
Level 5	IC 180-218218/6	50727D06.D
Level 6	IC 180-218218/10	50727D10.D
Level 7	IC 180-218218/8	50727D08.D
Level 8	IC 180-218218/11	50727D11.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Dichlorodifluoromethane	6.6 -12.7	8.1 -3.0	1.9	0.1	-5.3	4.3	50 30	30	30	30	30	30
Chloromethane	24.5 -11.5	0.4 -8.6	-1.7	1.9	-0.6	-4.5	50 30	30	30	30	30	30
Vinyl chloride	21.8 -13.3	3.6 -3.7	1.6	-4.3	-5.5	-0.2	50 30	30	30	30	30	30
1,3-Butadiene	23.1 -15.3	2.9 -0.4	-1.2	-2.8	-7.0	0.8	50 30	30	30	30	30	30
Bromomethane	-9.1 -8.0	11.9 -11.3	7.5	2.5	11.0	-4.6	50 30	30	30	30	30	30
Chloroethane	21.0 -11.8	7.8 -16.3	-1.5	1.4	1.8	-2.3	50 30	30	30	30	30	30
Trichlorofluoromethane	13.3 -13.2	6.9 -8.1	4.3	-0.3	-1.9	-1.1	50 30	30	30	30	30	30
Ethyl ether	13.5 -4.1	4.4 -14.9	-1.1	2.1	6.3	-6.1	50 30	30	30	30	30	30
Acrolein	-1.6 7.0	-8.5 -7.9	5.3	5.9	5.4	-5.6	50 30	30	30	30	30	30
1,1-Dichloroethene	7.6 -10.9	3.1 0.2	-0.4	0.0	-2.9	3.3	50 30	30	30	30	30	30
1,1,2-Trichloro-1,2,2-trifluoroethane	24.6 -11.3	2.2 -5.2	-2.7	-1.6	-5.7	-0.3	50 30	30	30	30	30	30
Acetone	6.8 -11.0	10.7 -20.6	6.1	11.7	16.2	-19.8	50 30	30	30	30	30	30
Iodomethane	9.6 -3.4	0.4 -5.9	-3.4	1.6	2.2	-1.1	50 30	30	30	30	30	30
Carbon disulfide	6.1 0.5	-8.9 13.7	-7.9	-3.8	0.4	+++++	50 30	30	30	30	30	30
Allyl chloride	-5.1 3.1	-6.1 4.0	-2.6	-1.3	-0.2	8.1	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Methyl acetate	11.5	-4.9	1.6	3.8	3.7	-8.7	50	30	30	30	30	30
	0.9	-8.0					30	30				
Methylene Chloride	0.0	-2.5	0.4	5.0	6.0	-2.6	50	30	30	30	30	30
	0.7	-7.2					30	30				
tert-Butyl alcohol	12.8	-2.2	-1.6	-4.3	-4.9	8.8	50	30	30	30	30	30
	-13.1	4.4					30	30				
Acrylonitrile	7.5	-0.7	4.3	4.9	5.9	-12.1	50	30	30	30	30	30
	-1.1	-8.6					30	30				
trans-1,2-Dichloroethene	13.6	-2.1	-2.2	2.2	2.2	0.0	50	30	30	30	30	30
	-8.7	-4.9					30	30				
Methyl tert-butyl ether	-5.3	-2.2	-3.3	5.3	5.8	0.0	50	30	30	30	30	30
	4.3	-4.5					30	30				
Hexane	28.4	0.2	-3.7	-4.4	-9.4	-0.5	50	30	30	30	30	30
	-11.8	1.2					30	30				
1,1-Dichloroethane	7.8	2.7	0.1	0.3	1.2	-1.1	50	30	30	30	30	30
	-4.4	-6.6					30	30				
Vinyl acetate	1.8	-13.3	-7.6	4.0	3.7	1.4	50	30	30	30	30	30
	8.4	1.6					30	30				
2,2-Dichloropropane	12.7	-4.4	-6.6	1.5	2.4	3.6	50	30	30	30	30	30
	-9.5	0.3					30	30				
cis-1,2-Dichloroethene	3.3	0.1	0.3	4.3	4.6	-1.5	50	30	30	30	30	30
	-4.1	-7.1					30	30				
2-Butanone (MEK)	-0.4	5.8	6.9	10.9	10.2	-13.7	50	30	30	30	30	30
	-4.8	-14.9					30	30				
Bromochloromethane	7.0	-0.3	-1.1	2.5	5.4	-3.6	50	30	30	30	30	30
	-1.4	-8.4					30	30				
Tetrahydrofuran	26.5	-9.4	0.4	4.3	-0.5	-14.3	50	30	30	30	30	30
	0.4	-7.4					30	30				
Chloroform	12.9	3.2	-2.7	3.1	2.8	-4.3	50	30	30	30	30	30
	-4.6	-10.3					30	30				
1,1,1-Trichloroethane	3.3	0.3	-0.8	-0.1	0.7	3.7	50	30	30	30	30	30
	-5.5	-1.5					30	30				
Cyclohexane	10.1	2.0	-2.0	-2.2	-5.1	4.9	50	30	30	30	30	30
	-9.2	1.5					30	30				
Carbon tetrachloride	4.3	-2.0	-1.1	0.1	-0.1	4.8	50	30	30	30	30	30
	-5.6	-0.4					30	30				
1,1-Dichloropropene	2.6	3.1	0.7	1.1	-0.8	2.5	50	30	30	30	30	30
	-7.1	-2.1					30	30				
Isobutyl alcohol	-2.6	-8.4	2.0	11.6	12.2	-14.7	50	30	30	30	30	30
	5.2	-5.4					30	30				
Benzene	13.4	3.9	2.0	3.6	3.3	-5.2	50	30	30	30	30	30
	-8.9	-12.1					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
1,2-Dichloroethane	9.6	0.3	-0.4	5.9	4.5	-6.3	50	30	30	30	30	30
	-3.5	-10.0					30	30				
n-Heptane	6.1	5.2	-0.1	-3.8	-6.2	3.6	50	30	30	30	30	30
	-10.8	6.0					30	30				
Trichloroethene	5.5	0.9	-0.3	1.4	3.5	-0.8	50	30	30	30	30	30
	-5.8	-4.6					30	30				
Methylcyclohexane	2.2	1.0	1.5	-0.6	-2.9	5.4	50	30	30	30	30	30
	-8.5	1.9					30	30				
1,2-Dichloropropane	6.4	-1.8	-1.7	2.9	5.1	-1.3	50	30	30	30	30	30
	-1.7	-7.7					30	30				
1,4-Dioxane	-25.2	-2.1	6.9	4.5	9.7	-5.7	50	30	30	30	30	30
	5.1	6.9					30	30				
Dibromomethane	-3.8	3.0	-1.3	4.5	6.9	-3.2	50	30	30	30	30	30
	0.5	-6.6					30	30				
Bromodichloromethane	-7.8	-4.0	-2.7	5.6	8.1	2.5	50	30	30	30	30	30
	2.9	-4.5					30	30				
2-Chloroethyl vinyl ether	-18.1	-5.9	-0.3	8.0	10.3	-0.6	50	30	30	30	30	30
	6.8	-0.3					30	30				
cis-1,3-Dichloropropene	-9.1	-9.1	-4.3	4.1	8.7	4.4	50	30	30	30	30	30
	5.1	0.1					30	30				
4-Methyl-2-pentanone (MIBK)	5.7	-2.6	6.0	6.1	8.6	-9.1	50	30	30	30	30	30
	-4.6	-10.1					30	30				
Toluene	22.4	14.1	4.6	0.7	0.8	-7.8	50	30	30	30	30	30
	-15.6	-19.2					30	30				
trans-1,3-Dichloropropene	-9.6	-5.7	-5.3	2.9	10.1	6.1	50	30	30	30	30	30
	3.8	-2.3					30	30				
Ethyl methacrylate	-16.8	-4.5	2.2	8.2	11.4	1.9	50	30	30	30	30	30
	1.4	-3.8					30	30				
1,1,2-Trichloroethane	20.6	5.8	0.2	1.4	3.0	-7.2	50	30	30	30	30	30
	-9.2	-14.4					30	30				
Tetrachloroethene	20.7	14.9	0.0	-2.8	-3.1	-3.4	50	30	30	30	30	30
	-15.3	-11.0					30	30				
1,3-Dichloropropane	16.5	7.8	0.6	4.0	1.7	-7.0	50	30	30	30	30	30
	-8.7	-14.8					30	30				
2-Hexanone	-0.2	1.1	6.6	6.9	11.4	-8.5	50	30	30	30	30	30
	-6.6	-10.7					30	30				
Dibromochloromethane	-9.0	-1.8	-1.5	3.6	9.3	2.7	50	30	30	30	30	30
	1.9	-5.2					30	30				
1,2-Dibromoethane (EDB)	7.3	2.9	0.7	5.4	4.2	-4.8	50	30	30	30	30	30
	-5.6	-10.1					30	30				
3-Chlorobenzotrifluoride	25.2	2.7	-2.4	2.8	1.2	-6.3	50	30	30	30	30	30
	-16.2	-7.1					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
Chlorobenzene	24.4	8.4	0.0	2.0	2.0	-6.6	50	30	30	30	30	30
	-13.0	-17.2					30	30				
4-Chlorobenzotrifluoride	17.4	3.9	-1.4	3.6	0.0	-3.9	50	30	30	30	30	30
	-15.3	-4.3					30	30				
1,1,1,2-Tetrachloroethane	3.5	3.3	0.4	3.4	5.6	-1.1	50	30	30	30	30	30
	-5.2	-9.9					30	30				
Ethylbenzene	6.0	7.8	3.8	2.7	3.8	-2.2	50	30	30	30	30	30
	-11.1	-10.9					30	30				
m-Xylene & p-Xylene	-2.1	10.4	4.4	2.4	3.9	-0.4	50	30	30	30	30	30
	-8.9	-9.8					30	30				
o-Xylene	1.5	6.1	3.1	4.7	5.8	-1.3	50	30	30	30	30	30
	-9.0	-10.9					30	30				
Styrene	1.7	9.6	5.2	4.8	5.8	-3.7	50	30	30	30	30	30
	-8.7	-14.6					30	30				
Bromoform	-6.4	-11.1	-6.4	3.0	8.8	5.0	50	30	30	30	30	30
	6.6	0.5					30	30				
2-Chlorobenzotrifluoride	8.8	5.3	-1.0	6.4	4.3	-5.8	50	30	30	30	30	30
	-11.8	-6.3					30	30				
Isopropylbenzene	7.0	12.1	6.2	5.2	3.6	-4.1	50	30	30	30	30	30
	-14.2	-15.8					30	30				
Bromobenzene	2.9	1.7	-3.4	2.8	4.5	0.4	50	30	30	30	30	30
	-3.2	-5.8					30	30				
1,1,2,2-Tetrachloroethane	14.5	5.5	3.7	3.2	1.1	-8.7	50	30	30	30	30	30
	-6.3	-13.2					30	30				
trans-1,4-Dichloro-2-butene	-11.2	-6.3	-3.4	9.2	3.8	0.8	50	30	30	30	30	30
	1.8	5.4					30	30				
1,2,3-Trichloropropane	2.5	-3.7	3.9	4.4	5.0	-5.9	50	30	30	30	30	30
	-1.4	-4.7					30	30				
N-Propylbenzene	-2.0	1.7	2.3	0.6	1.6	4.6	50	30	30	30	30	30
	-7.9	-0.9					30	30				
2-Chlorotoluene	-6.0	2.8	0.2	2.1	4.7	2.6	50	30	30	30	30	30
	-3.6	-2.8					30	30				
3-Chlorotoluene	-3.5	-1.1	1.8	6.3	6.5	-3.6	50	30	30	30	30	30
	-6.0	-0.4					30	30				
1,3,5-Trimethylbenzene	-4.5	8.3	4.4	4.4	4.6	0.2	50	30	30	30	30	30
	-9.0	-8.4					30	30				
4-Chlorotoluene	1.9	1.7	-0.1	-0.4	4.0	2.5	50	30	30	30	30	30
	-5.9	-3.7					30	30				
tert-Butylbenzene	-3.0	5.6	3.8	4.0	2.2	2.6	50	30	30	30	30	30
	-10.0	-5.2					30	30				
1,2,4-Trimethylbenzene	-3.1	5.9	4.5	4.8	4.4	-0.1	50	30	30	30	30	30
	-7.5	-8.9					30	30				

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh

Job No.: 180-72047-1

Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5

GC Column: DB-624

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51

Calibration End Date: 07/27/2017 04:24

Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
3,4-Dichlorobenzotrifluoride	16.3	-5.0	-1.7	4.1	-0.2	-3.9	50	30	30	30	30	30
	-11.4	1.9					30	30				
sec-Butylbenzene	1.4	7.7	5.2	2.7	2.1	0.3	50	30	30	30	30	30
	-11.8	-7.5					30	30				
1,3-Dichlorobenzene	9.1	3.5	0.9	2.0	2.9	-2.4	50	30	30	30	30	30
	-7.5	-8.4					30	30				
4-Isopropyltoluene	-4.2	6.7	6.0	3.9	2.5	1.3	50	30	30	30	30	30
	-9.8	-6.3					30	30				
1,4-Dichlorobenzene	11.1	2.9	1.5	1.9	1.8	-2.6	50	30	30	30	30	30
	-7.4	-9.1					30	30				
2,4-Dichlorobenzotrifluoride	3.2	2.1	-4.7	4.9	3.4	-1.5	50	30	30	30	30	30
	-12.8	5.4					30	30				
2,5-Dichlorobenzotrifluoride	7.2	-1.7	-1.2	2.2	0.1	-1.7	50	30	30	30	30	30
	-5.7	0.8					30	30				
n-Butylbenzene	-2.8	4.4	3.6	2.1	2.4	2.6	50	30	30	30	30	30
	-9.3	-3.0					30	30				
1,2-Dichlorobenzene	13.3	4.4	0.7	1.3	1.8	-3.4	50	30	30	30	30	30
	-7.3	-10.8					30	30				
1,2-Dibromo-3-Chloropropane	-8.7	-8.6	-3.3	-0.3	8.6	1.2	50	30	30	30	30	30
	9.1	2.1					30	30				
2,4- & 2,5- & 2,6- Dichlorotoluene	-6.2	-2.0	3.2	8.2	6.5	-2.9	50	30	30	30	30	30
	-6.5	-0.3					30	30				
2,3- & 3,4- Dichlorotoluene	-12.6	-5.4	0.4	9.5	9.3	-1.7	50	30	30	30	30	30
	-3.3	3.9					30	30				
1,2,4-Trichlorobenzene	0.0	-5.0	2.0	1.4	2.7	-0.1	50	30	30	30	30	30
	-3.7	2.7					30	30				
Hexachlorobutadiene	6.3	2.9	1.5	2.2	-1.0	-2.5	50	30	30	30	30	30
	-14.1	4.7					30	30				
Naphthalene	-18.6	-11.8	3.5	8.9	11.9	1.0	50	30	30	30	30	30
	2.9	2.2					30	30				
1,2,3-Trichlorobenzene	2.9	-1.8	-2.9	2.3	4.3	-3.0	50	30	30	30	30	30
	-5.0	3.2					30	30				
2,4,5-Trichlorotoluene	-1.8	-14.2	-6.7	6.5	8.5	5.8	50	30	30	30	30	30
	1.9	++++					30	30				
2,3,6-Trichlorotoluene	-16.7	-10.6	1.0	11.9	9.5	2.4	50	30	30	30	30	30
	2.5	++++					30	30				
Dibromofluoromethane (Surr)	6.6	1.1	-1.6	2.9	2.8	-1.7	50	30	30	30	30	30
	-3.3	-6.8					30	30				
1,2-Dichloroethane-d4 (Surr)	15.9	4.0	0.5	2.4	0.8	-8.2	50	30	30	30	30	30
	-4.5	-10.7					30	30				
Toluene-d8 (Surr)	28.6	13.2	2.5	-1.6	-1.4	-7.8	50	30	30	30	30	30
	-16.7	-16.7					30	30				

FORM VI
 GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
 READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1 Analy Batch No.: 218218

SDG No.: _____

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/27/2017 00:51 Calibration End Date: 07/27/2017 04:24 Calibration ID: 35038

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #					LVL 7	LVL 8				
4-Bromofluorobenzene (Surr)	13.5	6.5	0.1	1.0	2.5	-4.1	50	30	30	30	30	30
	-8.6	-11.0					30	30				

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
 Lims ID: IC VSTD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 27-Jul-2017 00:51:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-002
 Misc. Info.: IC VSTD1
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:45 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:08:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.317	4.323	-0.006	0	246479	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	99	541701	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	117831	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	96	160528	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	90	13893	5.00	5.33	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.951	6.945	0.006	0	18421	5.00	5.79	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	60283	5.00	6.43	
\$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	87	19227	5.00	5.68	
11 Dichlorodifluoromethane	85	1.665	1.646	0.018	68	16788	5.00	5.33	
12 Chloromethane	50	1.804	1.804	0.000	97	19706	5.00	6.22	
13 Vinyl chloride	62	1.932	1.944	-0.012	95	19568	5.00	6.09	
14 Butadiene	39	1.963	1.969	-0.005	95	17968	5.00	6.16	
15 Bromomethane	94	2.273	2.254	0.019	90	6901	5.00	4.54	
16 Chloroethane	64	2.419	2.419	0.000	89	10685	5.00	6.05	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	26531	5.00	5.94	
18 Trichlorofluoromethane	101	2.760	2.741	0.019	45	22371	5.00	5.67	M
20 Ethyl ether	59	3.076	3.076	0.000	88	14571	5.00	5.67	
21 Acrolein	56	3.252	3.252	0.000	99	63695	100.0	98.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	77	14263	5.00	5.38	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	74	18126	5.00	6.23	
24 Acetone	43	3.483	3.477	0.006	99	37823	25.0	26.7	
25 Iodomethane	142	3.569	3.562	0.007	95	22822	5.00	5.48	
26 Carbon disulfide	76	3.654	3.648	0.006	98	30868	5.00	5.30	
28 3-Chloro-1-propene	76	3.940	3.946	-0.006	90	8133	5.00	4.75	
30 Methyl acetate	43	3.970	3.976	-0.006	95	31286	10.0	11.2	
31 Methylene Chloride	84	4.177	4.165	0.012	84	25720	5.00	5.00	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	92	16447	50.0	56.4	
33 Acrylonitrile	53	4.554	4.554	0.000	98	73302	50.0	53.7	
34 trans-1,2-Dichloroethene	96	4.591	4.584	0.007	74	17158	5.00	5.68	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	84	38357	5.00	4.73	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	89	24902	5.00	6.42	
37 1,1-Dichloroethane	63	5.211	5.217	-0.006	96	28319	5.00	5.39	
38 Vinyl acetate	43	5.272	5.272	0.000	97	27185	5.00	5.09	
44 2,2-Dichloropropane	97	5.947	5.959	-0.012	46	3769	5.00	5.63	
45 cis-1,2-Dichloroethene	96	5.953	5.965	-0.012	79	17858	5.00	5.17	
46 2-Butanone (MEK)	43	5.984	5.978	0.006	98	50216	25.0	24.9	
49 Chlorobromomethane	128	6.245	6.245	0.000	93	8216	5.00	5.35	
51 Tetrahydrofuran	42	6.264	6.263	0.001	93	14858	10.0	12.7	
52 Chloroform	83	6.391	6.391	0.000	91	29608	5.00	5.64	
53 1,1,1-Trichloroethane	97	6.556	6.549	0.007	97	20508	5.00	5.16	
54 Cyclohexane	56	6.616	6.622	-0.006	87	26974	5.00	5.50	
56 Carbon tetrachloride	117	6.726	6.726	0.000	88	17231	5.00	5.21	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	96	22014	5.00	5.13	
57 Isobutyl alcohol	41	6.951	6.945	0.006	43	13122	125.0	121.7	
58 Benzene	78	6.951	6.951	0.000	96	74686	5.00	5.67	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	21038	5.00	5.48	
62 n-Heptane	43	7.316	7.316	0.000	56	16453	5.00	5.30	
64 Trichloroethene	130	7.681	7.687	-0.006	95	17490	5.00	5.28	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	25605	5.00	5.11	
67 1,2-Dichloropropane	63	7.955	7.961	-0.006	93	16316	5.00	5.32	
68 Dibromomethane	93	8.046	8.046	0.000	90	8641	5.00	4.81	
70 1,4-Dioxane	88	8.040	8.052	-0.012	5	2333	100.0	74.8	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	16257	5.00	4.61	
73 2-Chloroethyl vinyl ether	63	8.551	8.545	0.006	92	18086	10.0	8.19	
74 cis-1,3-Dichloropropene	75	8.691	8.685	0.006	95	19479	5.00	4.55	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	96	79892	25.0	26.4	
76 Toluene	91	9.019	9.019	0.000	98	71883	5.00	6.12	
77 trans-1,3-Dichloropropene	75	9.263	9.269	-0.006	92	14443	5.00	4.52	
78 Ethyl methacrylate	69	9.330	9.330	0.000	90	16030	5.00	4.16	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	89	14755	5.00	6.03	
80 Tetrachloroethene	164	9.530	9.530	0.000	95	13528	5.00	6.04	
81 1,3-Dichloropropane	76	9.616	9.615	0.001	90	26359	5.00	5.83	
82 2-Hexanone	43	9.683	9.682	0.000	98	57842	25.0	25.0	
84 Chlorodibromomethane	129	9.835	9.834	0.001	92	9414	5.00	4.55	
85 Ethylene Dibromide	107	9.944	9.944	0.000	98	13462	5.00	5.36	
86 3-Chlorobenzotrifluoride	180	10.413	10.412	0.001	90	25343	5.00	6.26	
87 Chlorobenzene	112	10.437	10.437	0.000	94	47566	5.00	6.22	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	21933	5.00	5.87	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	88	12587	5.00	5.18	
90 Ethylbenzene	106	10.534	10.534	0.000	98	22622	5.00	5.30	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	25553	5.00	4.90	
92 o-Xylene	106	11.051	11.051	0.000	95	25240	5.00	5.08	
93 Styrene	104	11.076	11.069	0.007	93	42810	5.00	5.09	
94 Bromoform	173	11.252	11.252	0.000	92	6015	5.00	4.68	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	96	21074	5.00	5.44	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	64937	5.00	5.35	
100 Bromobenzene	156	11.739	11.739	0.000	93	16032	5.00	5.15	
99 1,1,2,2-Tetrachloroethane	83	11.739	11.745	-0.006	77	20749	5.00	5.73	
102 trans-1,4-Dichloro-2-buten	53	11.787	11.775	0.012	75	4170	5.00	4.44	
101 1,2,3-Trichloropropane	110	11.800	11.793	0.007	85	6588	5.00	5.12	
103 N-Propylbenzene	120	11.842	11.842	0.000	99	17451	5.00	4.90	
104 2-Chlorotoluene	126	11.927	11.927	0.000	96	14458	5.00	4.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	16155	5.00	4.83	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	95	48645	5.00	4.78	
107 4-Chlorotoluene	126	12.061	12.055	0.006	96	16940	5.00	5.10	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	41329	5.00	4.85	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	50171	5.00	4.84	
111 1,2-dichloro-4-(trifluorom	214	12.457	12.456	0.001	95	15090	5.00	5.82	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	60251	5.00	5.07	
113 1,3-Dichlorobenzene	146	12.694	12.688	0.006	96	30355	5.00	5.45	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	47431	5.00	4.79	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	31756	5.00	5.56	
116 2,4-Dichloro-1-(trifluorom	214	12.840	12.828	0.012	94	12460	5.00	5.16	
118 2,5-Dichlorobenzotrifluori	214	12.882	12.870	0.012	0	13980	5.00	5.36	
120 n-Butylbenzene	91	13.156	13.150	0.006	96	39215	5.00	4.86	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	85	30057	5.00	5.66	
122 1,2-Dibromo-3-Chloropropan	75	13.977	13.971	0.006	81	2690	5.00	4.57	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.130	14.117	0.013	0	47367	15.0	14.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.561	14.555	0.006	0	30402	10.0	8.74	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	92	12140	5.00	5.00	
127 Hexachlorobutadiene	225	15.012	14.993	0.019	91	4721	5.00	5.31	
128 Naphthalene	128	15.127	15.103	0.024	96	33677	5.00	4.07	
129 1,2,3-Trichlorobenzene	180	15.371	15.346	0.025	95	11407	5.00	5.14	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	5175	5.00	4.91	
130 2,3,6-Trichlorotoluene	159	16.338	16.307	0.031	88	4086	5.00	4.17	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		10.0	9.97	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.8	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.06	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 0.20	Units: uL
VOA8260VOAPRI_00263	Amount Added: 0.20	Units: uL
voaWAcro1stRe_00016	Amount Added: 4.00	Units: uL
voaWVA1stRest_00017	Amount Added: 0.20	Units: uL
voaWEEmix1stR_00009	Amount Added: 0.20	Units: uL
voaW2clev1stR_00013	Amount Added: 0.20	Units: uL
voaWKetmix1st_00004	Amount Added: 0.80	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D

Injection Date: 27-Jul-2017 00:51:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD1

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

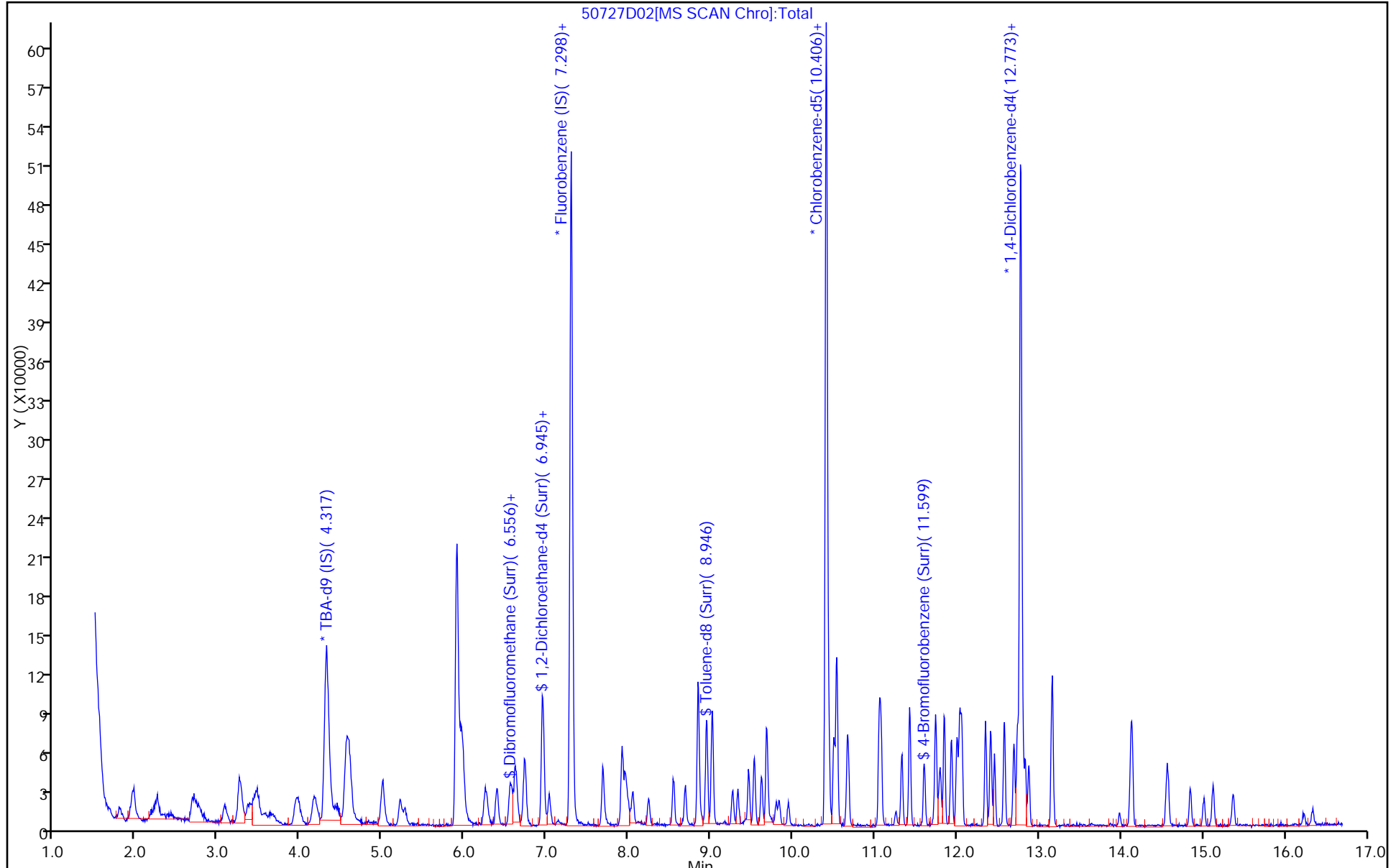
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

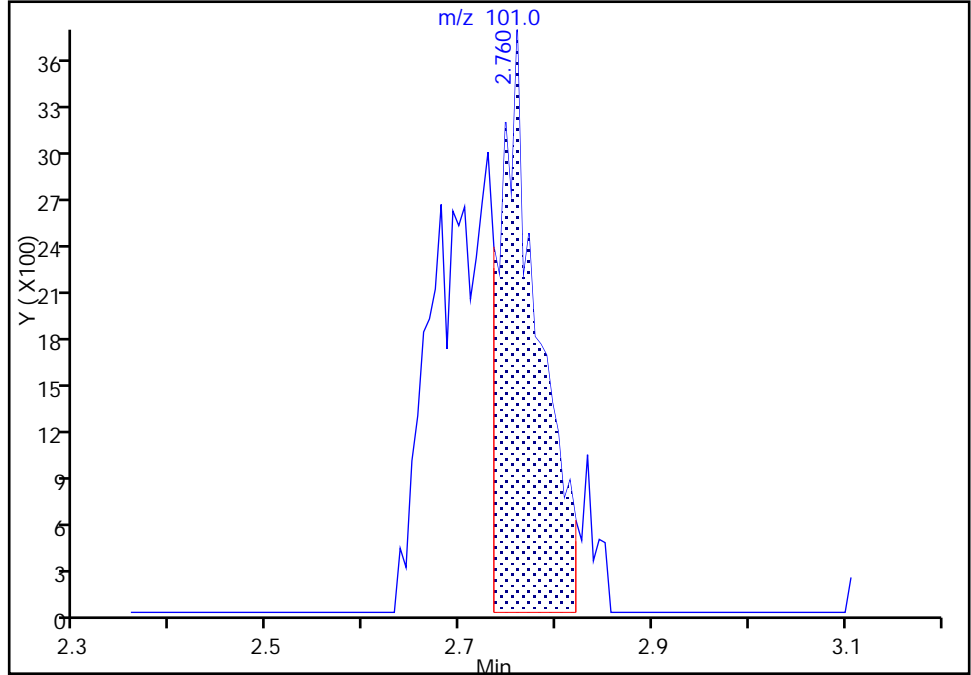
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D02.D
Injection Date: 27-Jul-2017 00:51:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

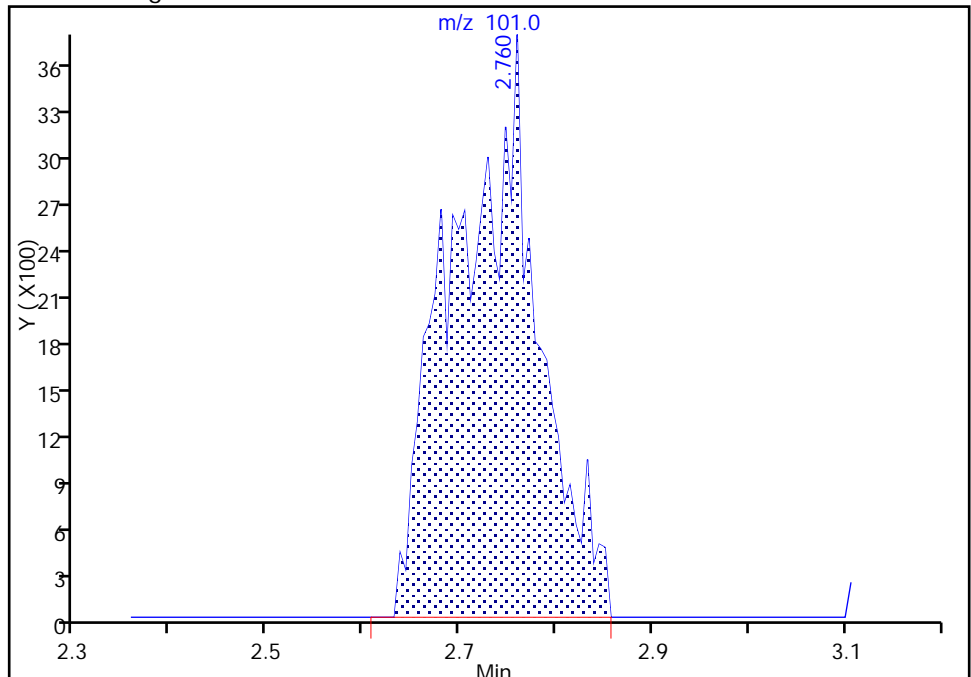
RT: 2.76
Area: 10302
Amount: 3.465076
Amount Units: ng

Processing Integration Results



RT: 2.76
Area: 22371
Amount: 5.667373
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:06:53
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
 Lims ID: IC VSTD5
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 27-Jul-2017 01:15:30 ALS Bottle#: 3 Worklist Smp#: 3
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-003
 Misc. Info.: IC VSTD5
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:47 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:14:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.319	4.323	-0.004	0	223811	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	98	538128	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	85	123664	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.773	0.002	94	168910	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.576	6.574	0.002	94	65453	25.0	25.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.947	6.945	0.002	0	82071	25.0	26.0	
\$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	278432	25.0	28.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.600	11.599	0.001	87	94618	25.0	26.6	
11 Dichlorodifluoromethane	85	1.648	1.646	0.002	100	84559	25.0	27.0	
12 Chloromethane	50	1.794	1.804	-0.010	99	78965	25.0	25.1	
13 Vinyl chloride	62	1.946	1.944	0.002	98	82670	25.0	25.9	
14 Butadiene	39	1.964	1.969	-0.004	92	74553	25.0	25.7	
15 Bromomethane	94	2.262	2.254	0.008	91	42224	25.0	28.0	
16 Chloroethane	64	2.421	2.419	0.001	98	47273	25.0	26.9	
17 Dichlorofluoromethane	67	2.700	2.699	0.001	97	119855	25.0	27.0	
18 Trichlorofluoromethane	101	2.749	2.741	0.008	94	104824	25.0	26.7	M
20 Ethyl ether	59	3.084	3.076	0.008	87	66542	25.0	26.1	
21 Acrolein	56	3.266	3.252	0.014	98	73476	125.0	114.3	
22 1,1-Dichloroethene	96	3.376	3.368	0.008	96	67928	25.0	25.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.436	3.441	-0.005	93	73846	25.0	25.5	
24 Acetone	43	3.479	3.477	0.002	96	77890	50.0	55.3	
25 Iodomethane	142	3.570	3.562	0.008	98	103869	25.0	25.1	
26 Carbon disulfide	76	3.649	3.648	0.001	99	131730	25.0	22.8	
28 3-Chloro-1-propene	76	3.954	3.946	0.008	92	39946	25.0	23.5	
30 Methyl acetate	43	3.978	3.976	0.002	97	132543	50.0	47.6	
31 Methylene Chloride	84	4.166	4.165	0.001	88	84822	25.0	24.4	
32 2-Methyl-2-propanol	59	4.446	4.451	-0.005	92	64738	250.0	244.6	
33 Acrylonitrile	53	4.562	4.554	0.008	100	336508	250.0	248.3	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	98	73445	25.0	24.5	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	96	196780	25.0	24.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.006	4.998	0.008	92	96542	25.0	25.1	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	133976	25.0	25.7	
38 Vinyl acetate	43	5.268	5.272	-0.004	97	115000	25.0	21.7	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	57	15889	25.0	23.9	
45 cis-1,2-Dichloroethene	96	5.961	5.965	-0.004	81	85931	25.0	25.0	
46 2-Butanone (MEK)	43	5.985	5.978	0.007	93	105960	50.0	52.9	
49 Chlorobromomethane	128	6.253	6.245	0.008	94	38047	25.0	24.9	
51 Tetrahydrofuran	42	6.271	6.263	0.008	86	52866	50.0	45.3	
52 Chloroform	83	6.393	6.391	0.002	93	134431	25.0	25.8	
53 1,1,1-Trichloroethane	97	6.557	6.549	0.008	98	98927	25.0	25.1	
54 Cyclohexane	56	6.618	6.622	-0.004	89	124196	25.0	25.5	
56 Carbon tetrachloride	117	6.722	6.726	-0.004	95	80446	25.0	24.5	
55 1,1-Dichloropropene	75	6.746	6.738	0.008	98	109851	25.0	25.8	
57 Isobutyl alcohol	41	6.947	6.945	0.002	82	61305	625.0	572.5	
58 Benzene	78	6.953	6.951	0.002	97	339765	25.0	26.0	
59 1,2-Dichloroethane	62	7.032	7.030	0.002	97	95627	25.0	25.1	
62 n-Heptane	43	7.318	7.316	0.002	90	81002	25.0	26.3	
64 Trichloroethene	130	7.689	7.687	0.002	98	83072	25.0	25.2	
66 Methylcyclohexane	83	7.920	7.918	0.002	86	125697	25.0	25.2	
67 1,2-Dichloropropane	63	7.963	7.961	0.002	94	74777	25.0	24.5	
68 Dibromomethane	93	8.048	8.046	0.002	95	45949	25.0	25.7	
70 1,4-Dioxane	88	8.048	8.052	-0.004	38	15162	500.0	489.4	M
71 Dichlorobromomethane	83	8.242	8.241	0.001	98	84070	25.0	24.0	
73 2-Chloroethyl vinyl ether	63	8.547	8.545	0.002	95	103158	50.0	47.0	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	96744	25.0	22.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.845	8.843	0.002	95	154465	50.0	48.7	
76 Toluene	91	9.015	9.019	-0.004	98	351840	25.0	28.5	
77 trans-1,3-Dichloropropene	75	9.270	9.269	0.001	92	79122	25.0	23.6	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	96602	25.0	23.9	
79 1,1,2-Trichloroethane	97	9.465	9.457	0.008	90	67966	25.0	26.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	67579	25.0	28.7	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	127957	25.0	26.9	
82 2-Hexanone	43	9.678	9.682	-0.004	95	122936	50.0	50.5	
84 Chlorodibromomethane	129	9.836	9.834	0.002	89	53302	25.0	24.5	
85 Ethylene Dibromide	107	9.946	9.944	0.002	100	67745	25.0	25.7	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	95	109109	25.0	25.7	
87 Chlorobenzene	112	10.432	10.437	-0.005	95	217561	25.0	27.1	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	95	101825	25.0	26.0	
89 1,1,1,2-Tetrachloroethane	131	10.530	10.528	0.002	92	65901	25.0	25.8	
90 Ethylbenzene	106	10.536	10.534	0.002	98	120759	25.0	26.9	
91 m-Xylene & p-Xylene	106	10.670	10.668	0.002	0	151114	25.0	27.6	
92 o-Xylene	106	11.053	11.051	0.002	96	138375	25.0	26.5	
93 Styrene	104	11.071	11.069	0.002	95	242031	25.0	27.4	
94 Bromoform	173	11.254	11.252	0.002	97	30000	25.0	22.2	
96 2-Chlorobenzotrifluoride	180	11.327	11.325	0.002	97	107103	25.0	26.3	
97 Isopropylbenzene	105	11.424	11.422	0.002	96	356966	25.0	28.0	
100 Bromobenzene	156	11.734	11.739	-0.005	95	83376	25.0	25.4	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	94	100341	25.0	26.4	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	77	23168	25.0	23.4	
101 1,2,3-Trichloropropane	110	11.789	11.793	-0.004	86	32588	25.0	24.1	
103 N-Propylbenzene	120	11.838	11.842	-0.004	99	95261	25.0	25.4	
104 2-Chlorotoluene	126	11.929	11.927	0.002	96	83234	25.0	25.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	87067	25.0	24.7	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	95	290219	25.0	27.1	
107 4-Chlorotoluene	126	12.057	12.055	0.002	96	88877	25.0	25.4	
108 tert-Butylbenzene	119	12.349	12.347	0.002	93	236619	25.0	26.4	
110 1,2,4-Trimethylbenzene	105	12.410	12.408	0.002	97	288545	25.0	26.5	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	96	64854	25.0	23.8	
112 sec-Butylbenzene	105	12.574	12.572	0.002	94	336681	25.0	26.9	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	151590	25.0	25.9	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	97	277710	25.0	26.7	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	154714	25.0	25.7	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.828	0.001	96	64892	25.0	25.5	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	67486	25.0	24.6	
120 n-Butylbenzene	91	13.152	13.150	0.002	98	221777	25.0	26.1	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	98	145778	25.0	26.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	83	14158	25.0	22.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	260387	75.0	73.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.557	14.555	0.002	0	173187	50.0	47.3	
126 1,2,4-Trichlorobenzene	180	14.837	14.829	0.008	94	60672	25.0	23.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	24054	25.0	25.7	
128 Naphthalene	128	15.111	15.103	0.008	97	191971	25.0	22.1	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	95	57325	25.0	24.6	
131 2,4,5-Trichlorotoluene	159	16.200	16.198	0.002	0	23799	25.0	21.5	
130 2,3,6-Trichlorotoluene	159	16.309	16.307	0.002	95	23065	25.0	22.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		50.0	49.5	
S 133 Xylenes, Total	106				0		50.0	54.1	
S 135 1,3-Dichloropropene, Total	1				0		50.0	46.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOAPRI_00263	Amount Added: 1.00	Units: uL
voaW2clev1stR_00013	Amount Added: 1.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 5.00	Units: uL
voaWVA1stRest_00017	Amount Added: 1.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 1.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 1.00	Units: uL
voaWKetmix1st_00004	Amount Added: 1.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D

Injection Date: 27-Jul-2017 01:15:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD5

Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL

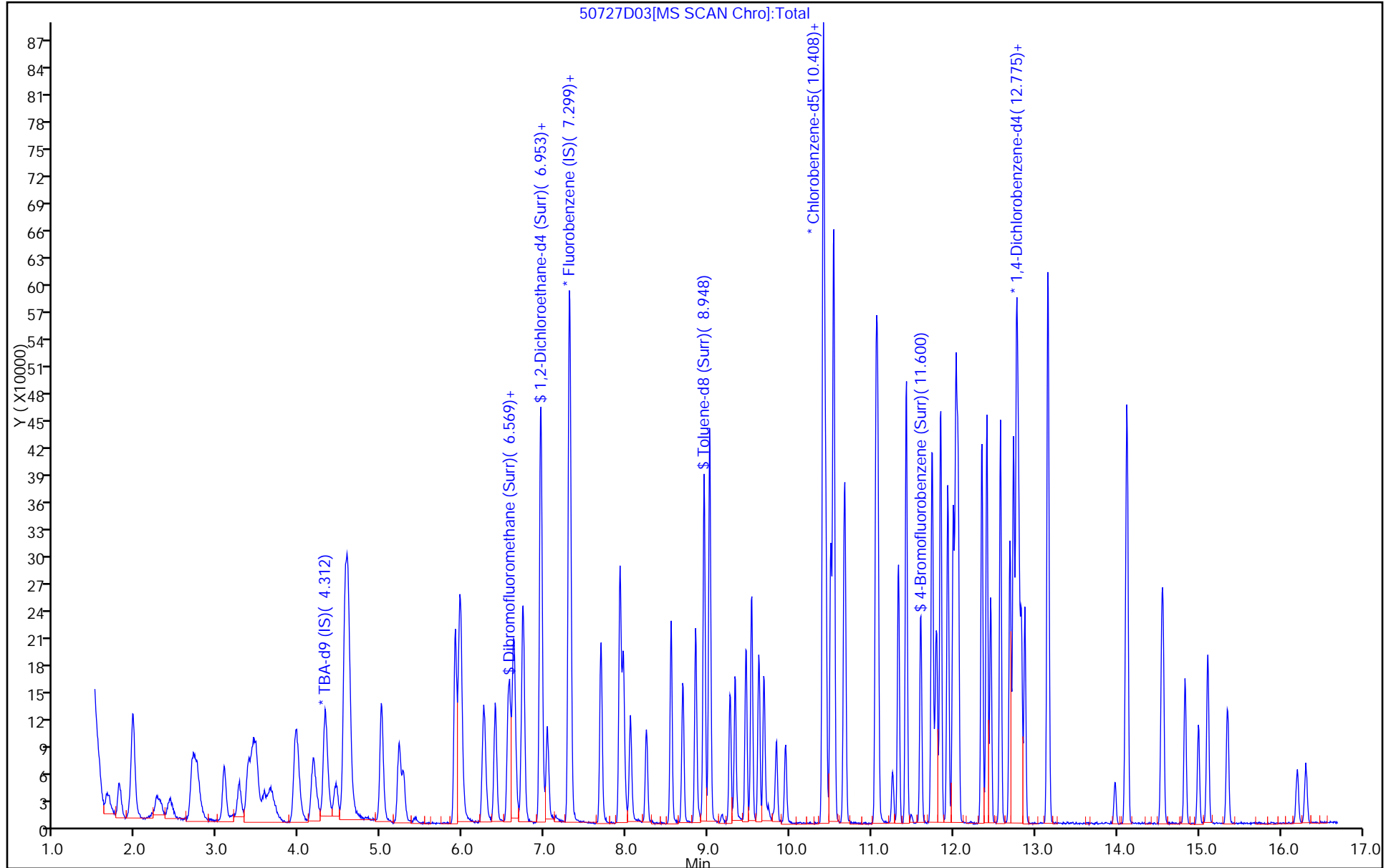
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

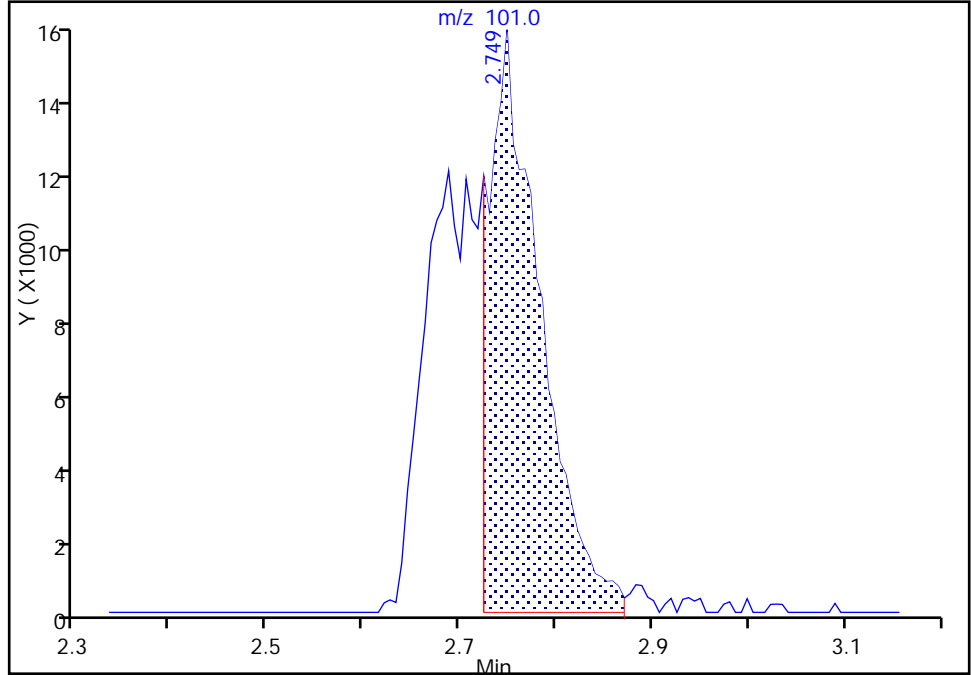
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Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

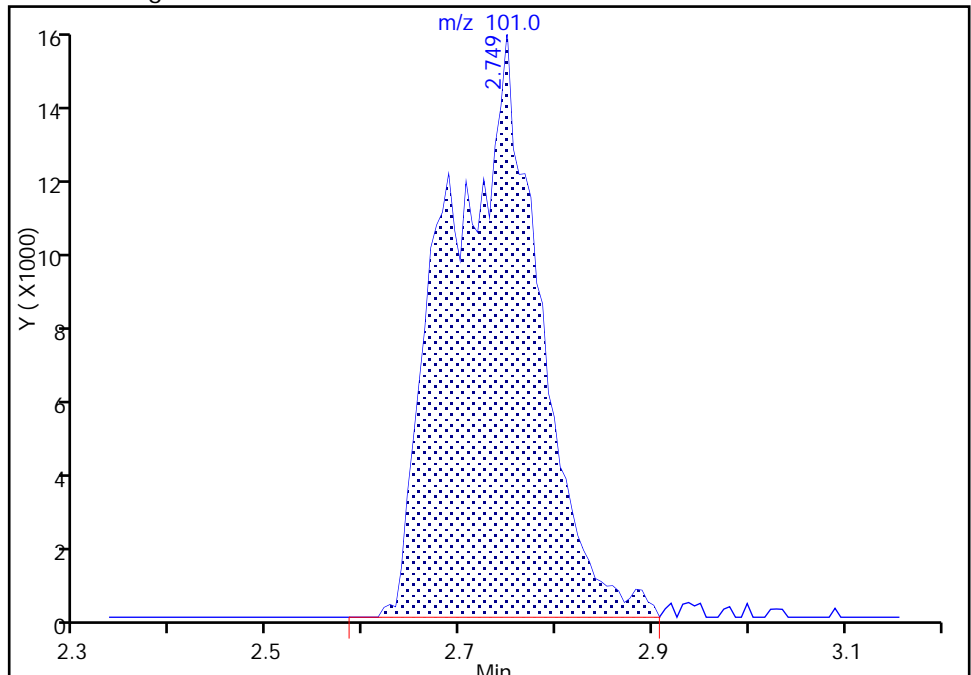
RT: 2.75
Area: 59636
Amount: 17.371088
Amount Units: ng

Processing Integration Results



RT: 2.75
Area: 104824
Amount: 26.731985
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:13:52
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

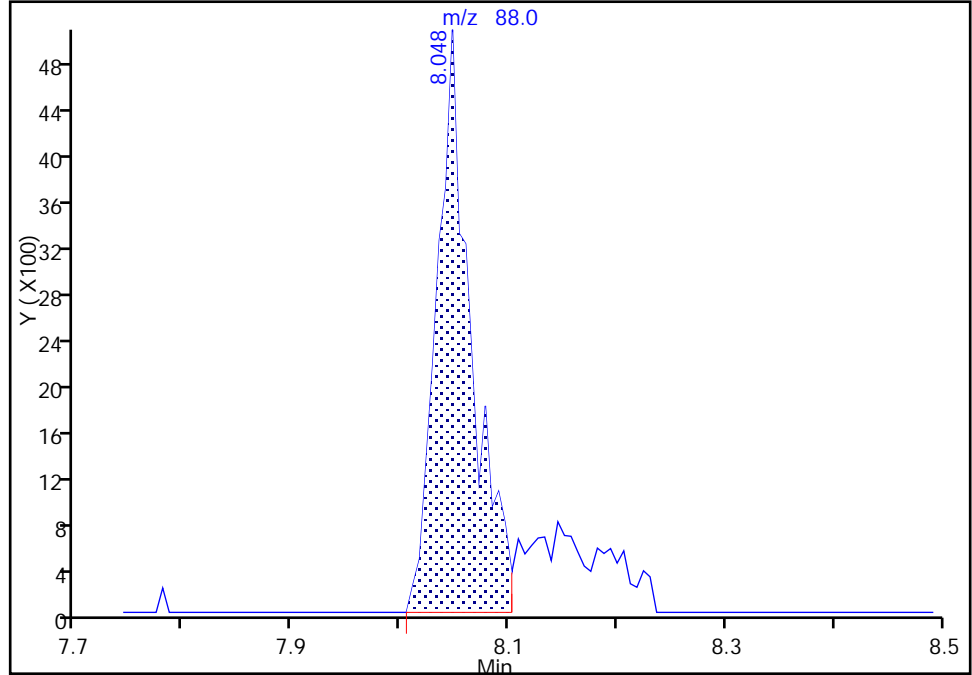
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D03.D
Injection Date: 27-Jul-2017 01:15:30 Instrument ID: CHHP5
Lims ID: IC VSTD5
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

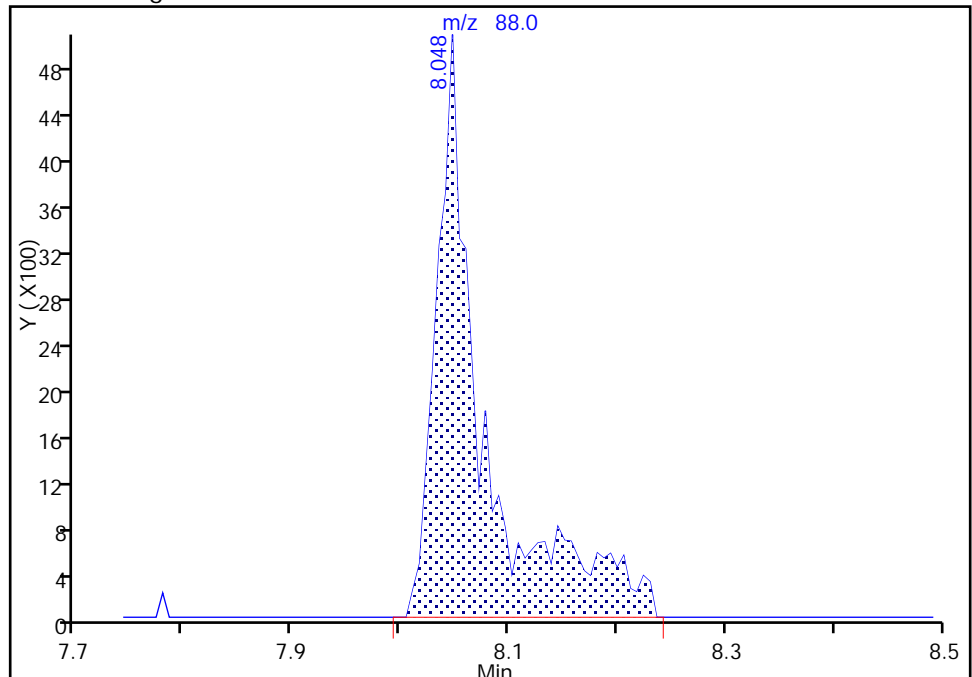
RT: 8.05
Area: 11273
Amount: 403.3803
Amount Units: ng

Processing Integration Results



RT: 8.05
Area: 15162
Amount: 489.3788
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:14:22
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D
 Lims ID: ICIS VSTD10
 Client ID:
 Sample Type: ICIS Calib Level: 3
 Inject. Date: 27-Jul-2017 01:39:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-004
 Misc. Info.: ICIS VSTD10
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:50 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:16:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.328	0.000	0	240414	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.297	0.000	99	539679	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.405	0.000	86	132843	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.772	0.000	94	174621	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.573	0.000	94	127700	50.0	49.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.944	0.000	0	159071	50.0	50.2	
\$ 7 Toluene-d8 (Surr)	98	8.951	8.951	0.000	92	541748	50.0	51.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.598	0.000	87	191158	50.0	50.1	
11 Dichlorodifluoromethane	85	1.663	1.663	0.000	99	159957	50.0	51.0	
12 Chloromethane	50	1.797	1.797	0.000	99	154943	50.0	49.1	
13 Vinyl chloride	62	1.955	1.955	0.000	98	162634	50.0	50.8	
14 Butadiene	39	1.968	1.968	0.000	94	143576	50.0	49.4	
15 Bromomethane	94	2.272	2.272	0.000	89	81346	50.0	53.8	
16 Chloroethane	64	2.424	2.424	0.000	98	86601	50.0	49.2	
17 Dichlorofluoromethane	67	2.710	2.710	0.000	96	224450	50.0	50.4	
18 Trichlorofluoromethane	101	2.746	2.746	0.000	97	205127	50.0	52.2	M
20 Ethyl ether	59	3.087	3.087	0.000	89	126496	50.0	49.4	
21 Acrolein	56	3.269	3.269	0.000	99	101829	150.0	158.0	
22 1,1-Dichloroethene	96	3.373	3.373	0.000	83	131576	50.0	49.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.440	3.440	0.000	91	141127	50.0	48.7	
24 Acetone	43	3.482	3.482	0.000	100	149782	100.0	106.1	
25 Iodomethane	142	3.580	3.580	0.000	99	200342	50.0	48.3	
26 Carbon disulfide	76	3.659	3.659	0.000	98	266935	50.0	46.0	
28 3-Chloro-1-propene	76	3.951	3.951	0.000	92	83167	50.0	48.7	
30 Methyl acetate	43	3.975	3.975	0.000	97	283974	100.0	101.6	
31 Methylene Chloride	84	4.170	4.170	0.000	90	164284	50.0	50.2	
32 2-Methyl-2-propanol	59	4.450	4.450	0.000	93	139891	500.0	492.0	
33 Acrylonitrile	53	4.559	4.559	0.000	99	708552	500.0	521.4	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	147191	50.0	48.9	
35 Methyl tert-butyl ether	73	4.608	4.608	0.000	96	390184	50.0	48.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	5.003	0.000	93	186124	50.0	48.2	
37 1,1-Dichloroethane	63	5.222	5.222	0.000	96	261874	50.0	50.0	
38 Vinyl acetate	43	5.271	5.271	0.000	97	245879	50.0	46.2	
44 2,2-Dichloropropane	97	5.958	5.958	0.000	72	31118	50.0	46.7	
45 cis-1,2-Dichloroethene	96	5.971	5.971	0.000	79	172690	50.0	50.2	
46 2-Butanone (MEK)	43	5.977	5.977	0.000	98	214731	100.0	106.9	
49 Chlorobromomethane	128	6.250	6.250	0.000	95	75687	50.0	49.5	
51 Tetrahydrofuran	42	6.269	6.269	0.000	89	117485	100.0	100.4	
52 Chloroform	83	6.396	6.396	0.000	92	254354	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.555	6.555	0.000	98	196286	50.0	49.6	
54 Cyclohexane	56	6.621	6.621	0.000	89	239333	50.0	49.0	
56 Carbon tetrachloride	117	6.719	6.719	0.000	97	162849	50.0	49.5	
55 1,1-Dichloropropene	75	6.743	6.743	0.000	97	215336	50.0	50.4	
57 Isobutyl alcohol	41	6.950	6.950	0.000	84	136973	1250.0	1275.5	
58 Benzene	78	6.950	6.950	0.000	97	669098	50.0	51.0	
59 1,2-Dichloroethane	62	7.035	7.035	0.000	97	190422	50.0	49.8	
62 n-Heptane	43	7.315	7.315	0.000	86	154370	50.0	50.0	
64 Trichloroethene	130	7.692	7.692	0.000	98	164695	50.0	49.9	
66 Methylcyclohexane	83	7.917	7.917	0.000	86	253511	50.0	50.8	
67 1,2-Dichloropropane	63	7.960	7.960	0.000	94	150135	50.0	49.1	
68 Dibromomethane	93	8.045	8.045	0.000	95	88395	50.0	49.4	
70 1,4-Dioxane	88	8.051	8.051	0.000	40	33209	1000.0	1068.8	M
71 Dichlorobromomethane	83	8.246	8.246	0.000	99	171049	50.0	48.7	
73 2-Chloroethyl vinyl ether	63	8.544	8.544	0.000	92	219328	100.0	99.7	
74 cis-1,3-Dichloropropene	75	8.690	8.690	0.000	95	204344	50.0	47.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.848	8.848	0.000	96	361112	100.0	106.0	
76 Toluene	91	9.018	9.018	0.000	99	692901	50.0	52.3	
77 trans-1,3-Dichloropropene	75	9.268	9.268	0.000	93	170710	50.0	47.4	
78 Ethyl methacrylate	69	9.329	9.329	0.000	88	222171	50.0	51.1	
79 1,1,2-Trichloroethane	97	9.456	9.456	0.000	90	138196	50.0	50.1	
80 Tetrachloroethene	164	9.535	9.535	0.000	97	126273	50.0	50.0	
81 1,3-Dichloropropane	76	9.621	9.621	0.000	89	256477	50.0	50.3	
82 2-Hexanone	43	9.681	9.681	0.000	94	278579	100.0	106.6	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	114911	50.0	49.3	
85 Ethylene Dibromide	107	9.943	9.943	0.000	98	142489	50.0	50.3	
86 3-Chlorobenzotrifluoride	180	10.411	10.411	0.000	93	222871	50.0	48.8	
87 Chlorobenzene	112	10.436	10.436	0.000	95	431311	50.0	50.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.497	0.000	96	207774	50.0	49.3	
89 1,1,1,2-Tetrachloroethane	131	10.533	10.533	0.000	94	137710	50.0	50.2	
90 Ethylbenzene	106	10.533	10.533	0.000	98	249792	50.0	51.9	
91 m-Xylene & p-Xylene	106	10.667	10.667	0.000	0	306948	50.0	52.2	
92 o-Xylene	106	11.050	11.050	0.000	96	288885	50.0	51.5	
93 Styrene	104	11.068	11.068	0.000	95	498873	50.0	52.6	
94 Bromoform	173	11.257	11.257	0.000	96	67829	50.0	46.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.324	0.000	97	216286	50.0	49.5	
97 Isopropylbenzene	105	11.421	11.421	0.000	95	726432	50.0	53.1	
100 Bromobenzene	156	11.738	11.738	0.000	94	163748	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.738	0.000	95	211912	50.0	51.9	
102 trans-1,4-Dichloro-2-buten	53	11.780	11.780	0.000	83	49334	50.0	48.3	
101 1,2,3-Trichloropropane	110	11.792	11.792	0.000	85	72643	50.0	51.9	
103 N-Propylbenzene	120	11.841	11.841	0.000	98	198029	50.0	51.1	
104 2-Chlorotoluene	126	11.926	11.926	0.000	97	167713	50.0	50.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.999	0.000	96	185343	50.0	50.9	
106 1,3,5-Trimethylbenzene	105	12.030	12.030	0.000	94	578518	50.0	52.2	
107 4-Chlorotoluene	126	12.054	12.054	0.000	96	180584	50.0	50.0	
108 tert-Butylbenzene	119	12.346	12.346	0.000	93	480729	50.0	51.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.407	0.000	97	588662	50.0	52.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	138659	50.0	49.1	
112 sec-Butylbenzene	105	12.571	12.571	0.000	94	679839	50.0	52.6	
113 1,3-Dichlorobenzene	146	12.687	12.687	0.000	97	305374	50.0	50.4	
114 4-Isopropyltoluene	119	12.735	12.735	0.000	97	570403	50.0	53.0	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	95	315614	50.0	50.8	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.827	0.000	95	125268	50.0	47.7	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.875	0.000	0	140272	50.0	49.4	
120 n-Butylbenzene	91	13.149	13.149	0.000	98	454742	50.0	51.8	
121 1,2-Dichlorobenzene	146	13.161	13.161	0.000	98	290492	50.0	50.3	
122 1,2-Dibromo-3-Chloropropan	75	13.976	13.976	0.000	85	30986	50.0	48.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.122	14.122	0.000	0	566788	150.0	154.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.554	14.554	0.000	0	380181	100.0	100.4	
126 1,2,4-Trichlorobenzene	180	14.834	14.834	0.000	93	134753	50.0	51.0	
127 Hexachlorobutadiene	225	14.992	14.992	0.000	97	49048	50.0	50.8	
128 Naphthalene	128	15.108	15.108	0.000	97	465533	50.0	51.7	
129 1,2,3-Trichlorobenzene	180	15.351	15.351	0.000	95	117120	50.0	48.5	
131 2,4,5-Trichlorotoluene	159	16.203	16.203	0.000	0	53498	50.0	46.6	
130 2,3,6-Trichlorotoluene	159	16.312	16.312	0.000	97	53869	50.0	50.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.7	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.0	
S 135 1,3-Dichloropropene, Total	1				0		100.0	95.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 2.00	Units: uL
voaW2clev1stR_00013	Amount Added: 2.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 6.00	Units: uL
voaWVA1stRest_00017	Amount Added: 2.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 2.00	Units: uL
voaWKetmix1st_00004	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D

Injection Date: 27-Jul-2017 01:39:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICIS VSTD10

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

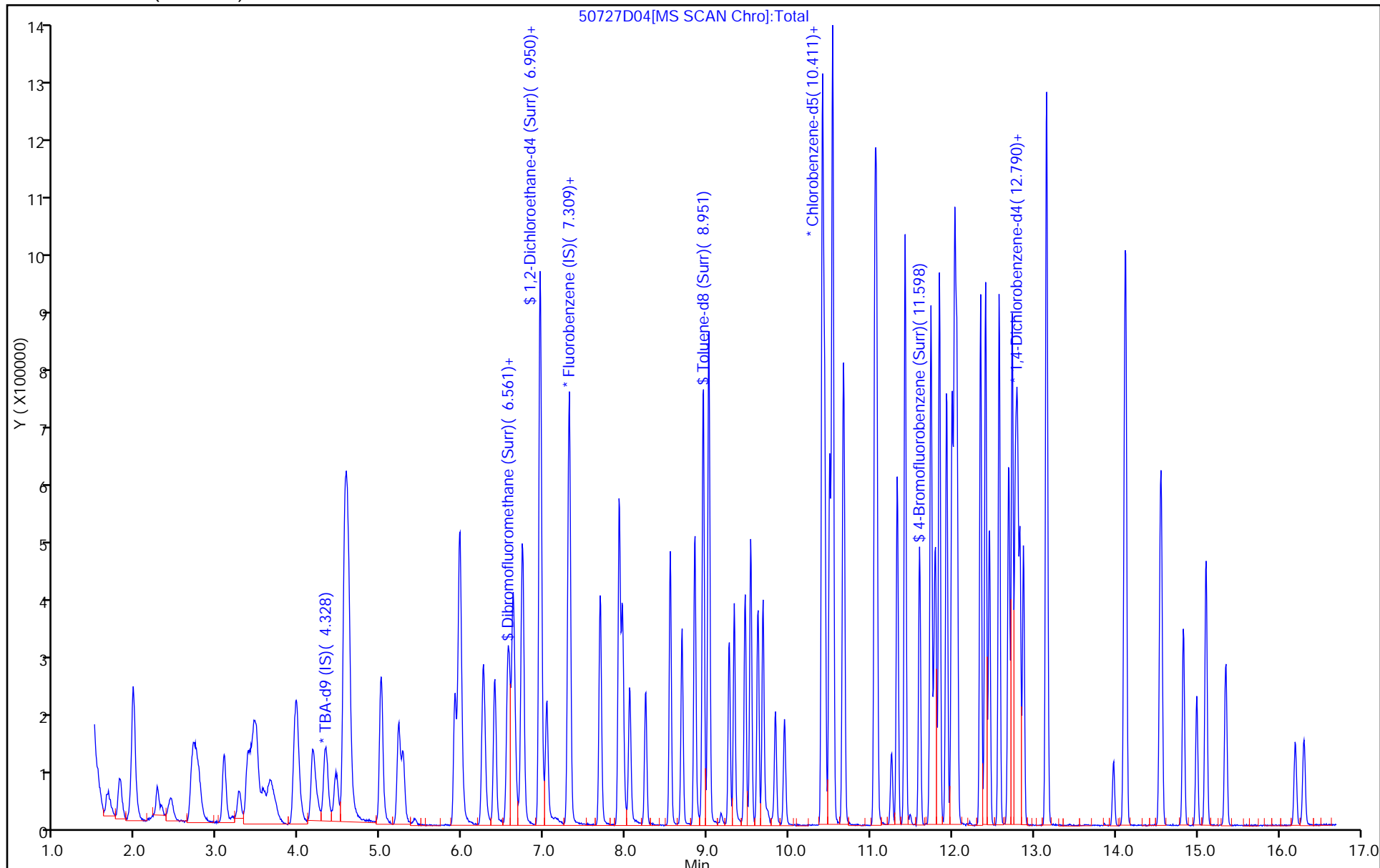
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

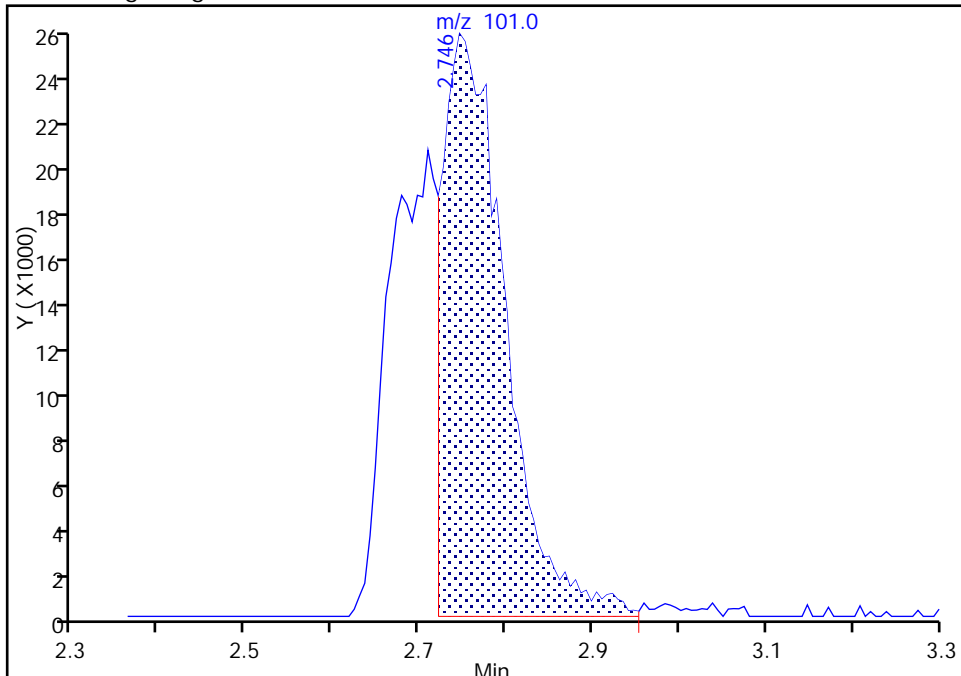
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Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

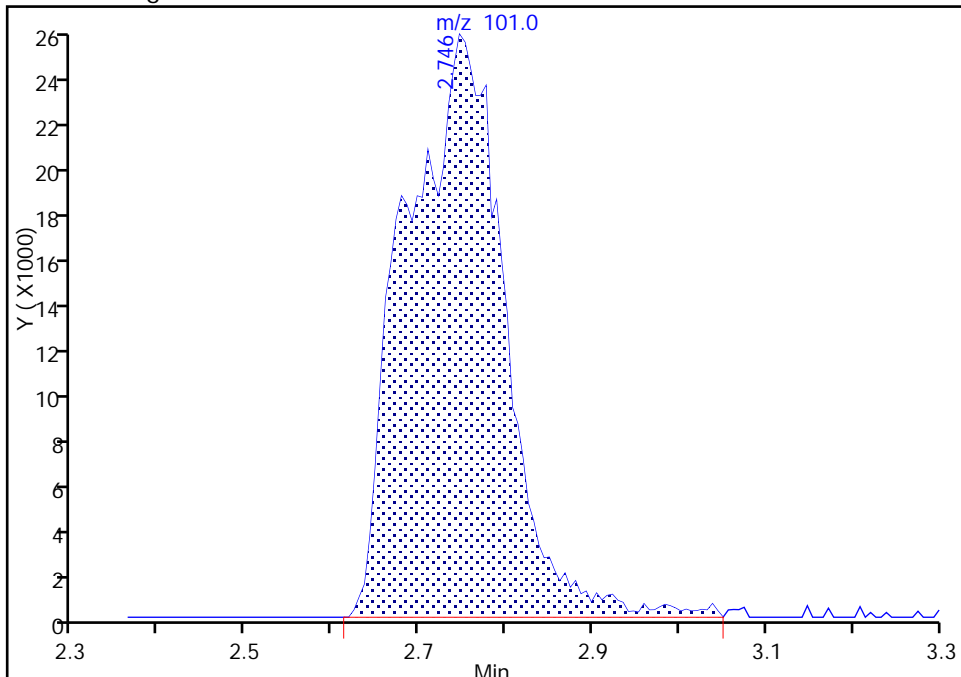
RT: 2.75
Area: 129465
Amount: 34.020484
Amount Units: ng

Processing Integration Results



RT: 2.75
Area: 205127
Amount: 52.160696
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:15:11
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

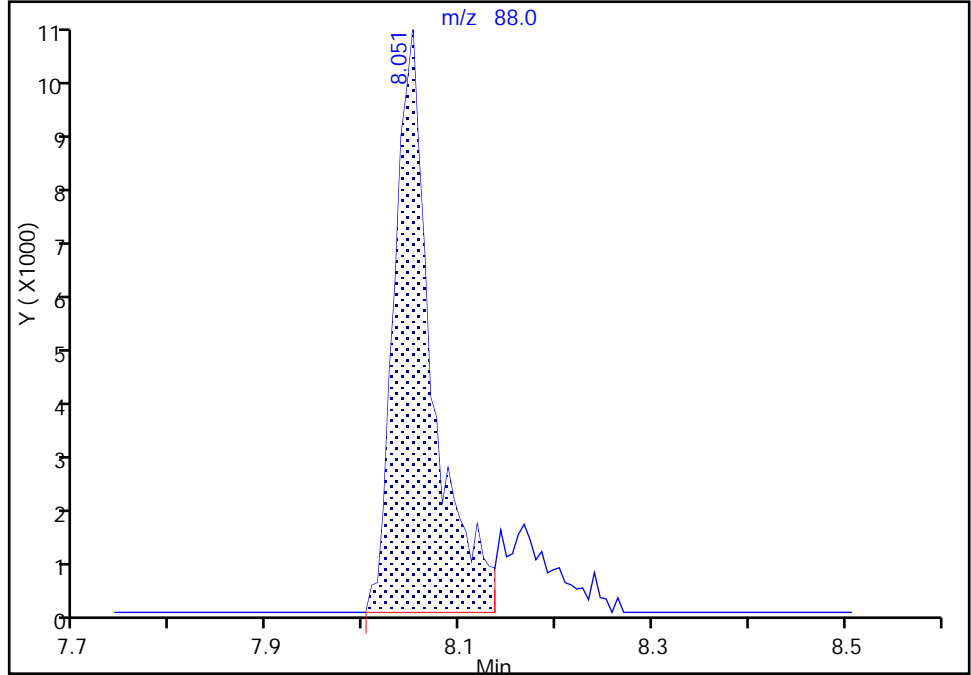
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D04.D
Injection Date: 27-Jul-2017 01:39:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

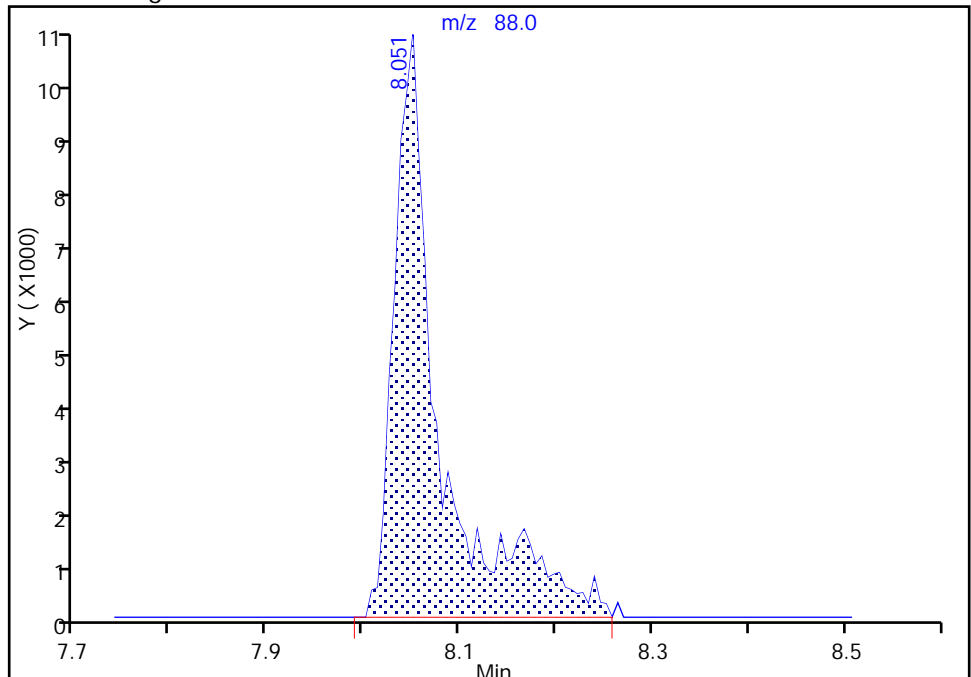
RT: 8.05
Area: 27736
Amount: 937.4398
Amount Units: ng

Processing Integration Results



RT: 8.05
Area: 33209
Amount: 1068.7953
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 27-Jul-2017 03:15:41
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D
 Lims ID: IC VSTD15
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 27-Jul-2017 02:02:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-005
 Misc. Info.: IC VSTD15
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:55 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:16:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.323	4.323	0.000	0	240814	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.298	7.298	0.000	98	519897	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	84	132905	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.773	12.773	0.000	91	174376	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.574	6.574	0.000	93	193042	75.0	77.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.945	6.945	0.000	0	234269	75.0	76.8	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	780569	75.0	73.8	
\$ 8 4-Bromofluorobenzene (Surr	95	11.599	11.599	0.000	88	289432	75.0	75.8	
11 Dichlorodifluoromethane	85	1.646	1.646	0.000	98	226899	75.0	75.1	
12 Chloromethane	50	1.804	1.804	0.000	99	232300	75.0	76.5	
13 Vinyl chloride	62	1.944	1.944	0.000	98	221295	75.0	71.8	
14 Butadiene	39	1.969	1.969	0.000	96	204212	75.0	72.9	
15 Bromomethane	94	2.254	2.254	0.000	90	112119	75.0	76.9	
16 Chloroethane	64	2.419	2.419	0.000	99	128899	75.0	76.1	
17 Dichlorofluoromethane	67	2.699	2.699	0.000	97	327021	75.0	76.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	94	283194	75.0	74.8	
20 Ethyl ether	59	3.076	3.076	0.000	87	188662	75.0	76.6	
21 Acrolein	56	3.252	3.252	0.000	99	115103	175.0	185.4	
22 1,1-Dichloroethene	96	3.368	3.368	0.000	97	190985	75.0	75.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.441	3.441	0.000	92	206212	75.0	73.8	
24 Acetone	43	3.477	3.477	0.000	100	227784	150.0	167.5	
25 Iodomethane	142	3.562	3.562	0.000	96	304618	75.0	76.2	
26 Carbon disulfide	76	3.648	3.648	0.000	98	403056	75.0	72.2	
28 3-Chloro-1-propene	76	3.946	3.946	0.000	92	121734	75.0	74.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	419273	150.0	155.7	
31 Methylene Chloride	84	4.165	4.165	0.000	87	242665	75.0	78.8	
32 2-Methyl-2-propanol	59	4.451	4.451	0.000	95	204334	750.0	717.5	
33 Acrylonitrile	53	4.554	4.554	0.000	98	1029651	750.0	786.5	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	97	222245	75.0	76.6	
35 Methyl tert-butyl ether	73	4.603	4.603	0.000	95	613933	75.0	78.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.998	4.998	0.000	93	266987	75.0	71.7	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	379320	75.0	75.2	
38 Vinyl acetate	43	5.272	5.272	0.000	97	400099	75.0	78.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	93	48893	75.0	76.2	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	259385	75.0	78.2	
46 2-Butanone (MEK)	43	5.978	5.978	0.000	98	321867	150.0	166.3	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	113290	75.0	76.8	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	176266	150.0	156.4	
52 Chloroform	83	6.391	6.391	0.000	93	389323	75.0	77.3	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	285488	75.0	74.9	
54 Cyclohexane	56	6.622	6.622	0.000	88	345041	75.0	73.4	
56 Carbon tetrachloride	117	6.726	6.726	0.000	97	238173	75.0	75.1	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	98	312373	75.0	75.9	
57 Isobutyl alcohol	41	6.945	6.945	0.000	61	216532	1875.0	2093.1	
58 Benzene	78	6.951	6.951	0.000	97	981851	75.0	77.7	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	98	292683	75.0	79.4	
62 n-Heptane	43	7.316	7.316	0.000	88	214813	75.0	72.2	
64 Trichloroethene	130	7.687	7.687	0.000	98	241861	75.0	76.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	86	358781	75.0	74.6	
67 1,2-Dichloropropane	63	7.961	7.961	0.000	96	227133	75.0	77.2	
68 Dibromomethane	93	8.046	8.046	0.000	95	135198	75.0	78.4	
70 1,4-Dioxane	88	8.052	8.052	0.000	38	46920	1500.0	1567.5	
71 Dichlorobromomethane	83	8.241	8.241	0.000	99	268080	75.0	79.2	
73 2-Chloroethyl vinyl ether	63	8.545	8.545	0.000	92	343066	150.0	162.0	
74 cis-1,3-Dichloropropene	75	8.685	8.685	0.000	96	320956	75.0	78.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	95	542662	150.0	159.2	
76 Toluene	91	9.019	9.019	0.000	99	1000479	75.0	75.5	
77 trans-1,3-Dichloropropene	75	9.269	9.269	0.000	93	278226	75.0	77.2	
78 Ethyl methacrylate	69	9.330	9.330	0.000	87	352819	75.0	81.1	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	209928	75.0	76.0	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	184171	75.0	72.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	88	397870	75.0	78.0	
82 2-Hexanone	43	9.682	9.682	0.000	93	419354	150.0	160.4	
84 Chlorodibromomethane	129	9.834	9.834	0.000	91	181267	75.0	77.7	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	223815	75.0	79.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	352260	75.0	77.1	
87 Chlorobenzene	112	10.437	10.437	0.000	94	660247	75.0	76.5	
88 4-Chlorobenzotrifluoride	180	10.498	10.498	0.000	96	327327	75.0	77.7	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	92	212641	75.0	77.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	371119	75.0	77.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	452043	75.0	76.8	
92 o-Xylene	106	11.051	11.051	0.000	95	440285	75.0	78.5	
93 Styrene	104	11.069	11.069	0.000	94	745860	75.0	78.6	
94 Bromoform	173	11.252	11.252	0.000	96	112077	75.0	77.3	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	348911	75.0	79.8	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	1080505	75.0	78.9	
100 Bromobenzene	156	11.739	11.739	0.000	95	261052	75.0	77.1	
99 1,1,2,2-Tetrachloroethane	83	11.745	11.745	0.000	95	316221	75.0	77.4	
102 trans-1,4-Dichloro-2-buten	53	11.775	11.775	0.000	82	83561	75.0	81.9	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	109372	75.0	78.3	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	291693	75.0	75.4	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	256066	75.0	76.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	97	289960	75.0	79.7	
106 1,3,5-Trimethylbenzene	105	12.031	12.031	0.000	94	866332	75.0	78.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	269544	75.0	74.7	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	721573	75.0	78.0	
110 1,2,4-Trimethylbenzene	105	12.408	12.408	0.000	97	884487	75.0	78.6	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	219982	75.0	78.1	
112 sec-Butylbenzene	105	12.572	12.572	0.000	94	993968	75.0	77.0	
113 1,3-Dichlorobenzene	146	12.688	12.688	0.000	97	462404	75.0	76.5	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	96	837492	75.0	77.9	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	96	474362	75.0	76.4	
116 2,4-Dichloro-1-(trifluorom	214	12.828	12.828	0.000	94	206368	75.0	78.6	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	217211	75.0	76.6	
120 n-Butylbenzene	91	13.150	13.150	0.000	98	671190	75.0	76.5	
121 1,2-Dichlorobenzene	146	13.156	13.156	0.000	98	437966	75.0	76.0	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	83	47827	75.0	74.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	889724	225.0	243.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	620870	150.0	164.2	
126 1,2,4-Trichlorobenzene	180	14.829	14.829	0.000	94	200638	75.0	76.1	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	73984	75.0	76.7	
128 Naphthalene	128	15.103	15.103	0.000	97	733996	75.0	81.7	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	184932	75.0	76.8	
131 2,4,5-Trichlorotoluene	159	16.198	16.198	0.000	0	91488	75.0	79.9	
130 2,3,6-Trichlorotoluene	159	16.307	16.307	0.000	98	89402	75.0	83.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		150.0	154.8	
S 133 Xylenes, Total	106				0		150.0	155.3	
S 135 1,3-Dichloropropene, Total	1				0		150.0	155.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 3.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 3.00	Units: uL
voaW2clev1stR_00013	Amount Added: 3.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 7.00	Units: uL
voaWVA1stRest_00017	Amount Added: 3.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 3.00	Units: uL
voaWKetmix1st_00004	Amount Added: 3.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D05.D

Injection Date: 27-Jul-2017 02:02:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD15

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

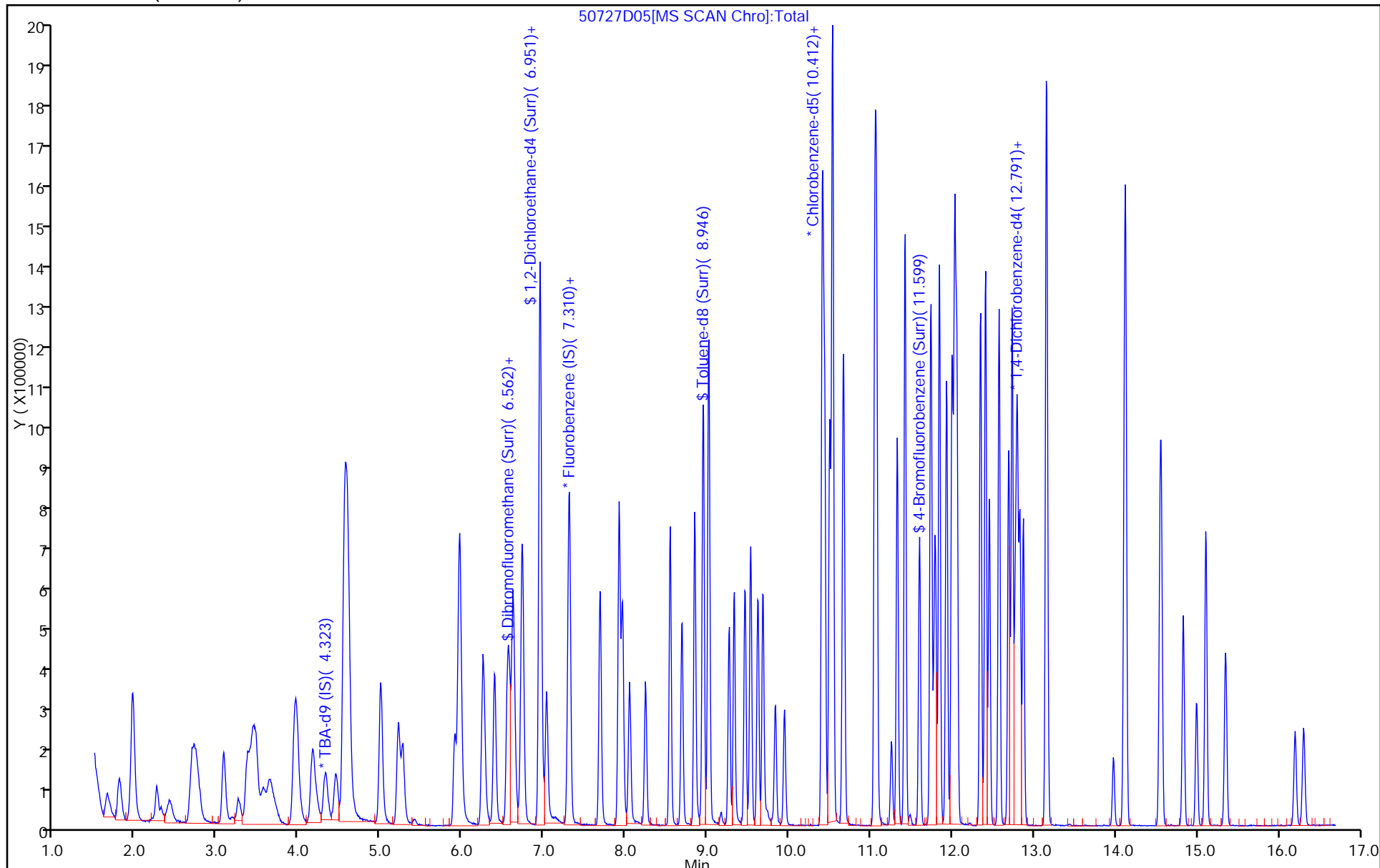
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D
 Lims ID: IC VSTD20
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 27-Jul-2017 02:26:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-006
 Misc. Info.: IC VSTD20
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:58 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:06:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.316	4.323	-0.007	0	252187	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	520193	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	132635	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	95	171832	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	93	257355	100.0	102.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	307676	100.0	100.8	
\$ 7 Toluene-d8 (Surr)	98	8.945	8.946	-0.001	92	1040595	100.0	98.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	390879	100.0	102.5	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	286388	100.0	94.7	
12 Chloromethane	50	1.797	1.804	-0.007	99	302276	100.0	99.4	
13 Vinyl chloride	62	1.949	1.944	0.005	98	291558	100.0	94.5	
14 Butadiene	39	1.962	1.969	-0.006	92	260580	100.0	93.0	
15 Bromomethane	94	2.260	2.254	0.006	90	161865	100.0	111.0	
16 Chloroethane	64	2.412	2.419	-0.007	99	172552	100.0	101.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	97	436022	100.0	101.7	
18 Trichlorofluoromethane	101	2.734	2.741	-0.007	96	371684	100.0	98.1	
20 Ethyl ether	59	3.081	3.076	0.005	89	262150	100.0	106.3	
21 Acrolein	56	3.264	3.252	0.012	99	130923	200.0	210.7	
22 1,1-Dichloroethene	96	3.373	3.368	0.005	98	247279	100.0	97.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.446	3.441	0.005	93	263603	100.0	94.3	
24 Acetone	43	3.476	3.477	-0.001	100	316026	200.0	232.3	
25 Iodomethane	142	3.562	3.562	0.000	98	408622	100.0	102.2	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	561008	100.0	100.4	
28 3-Chloro-1-propene	76	3.951	3.946	0.005	92	164305	100.0	99.8	
30 Methyl acetate	43	3.969	3.976	-0.007	97	558912	200.0	207.5	
31 Methylene Chloride	84	4.164	4.165	-0.001	93	323324	100.0	106.0	
32 2-Methyl-2-propanol	59	4.444	4.451	-0.007	94	283777	1000.0	951.5	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	1387354	1000.0	1059.2	
34 trans-1,2-Dichloroethene	96	4.584	4.584	0.000	98	296608	100.0	102.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	822838	100.0	105.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.003	4.998	0.005	92	337300	100.0	90.6	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	510811	100.0	101.2	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	532250	100.0	103.7	
44 2,2-Dichloropropane	97	5.959	5.959	-0.001	57	65750	100.0	102.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	347303	100.0	104.6	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	426755	200.0	220.4	
49 Chlorobromomethane	128	6.251	6.245	0.005	94	155416	100.0	105.4	
51 Tetrahydrofuran	42	6.263	6.263	0.000	86	224432	200.0	199.0	
52 Chloroform	83	6.390	6.391	-0.001	92	517765	100.0	102.8	
53 1,1,1-Trichloroethane	97	6.555	6.549	0.006	98	383868	100.0	100.7	
54 Cyclohexane	56	6.622	6.622	0.000	89	446560	100.0	94.9	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	96	317033	100.0	99.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	98	408627	100.0	99.2	
58 Benzene	78	6.956	6.951	0.005	97	1307056	100.0	103.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	91	290317	2500.0	2804.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	385206	100.0	104.5	
62 n-Heptane	43	7.315	7.316	-0.001	89	279216	100.0	93.8	
64 Trichloroethene	130	7.686	7.687	-0.001	98	329499	100.0	103.5	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	467268	100.0	97.1	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	96	309491	100.0	105.1	
68 Dibromomethane	93	8.051	8.046	0.005	96	184529	100.0	106.9	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	65688	2000.0	2193.3	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	99	366097	100.0	108.1	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	467677	200.0	220.7	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	447138	100.0	108.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.842	8.843	-0.001	95	738839	200.0	217.2	
76 Toluene	91	9.018	9.019	-0.001	99	1332783	100.0	100.8	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	92	396221	100.0	110.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	483364	100.0	111.4	
79 1,1,2-Trichloroethane	97	9.456	9.457	-0.001	90	283688	100.0	103.0	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	244346	100.0	96.9	
81 1,3-Dichloropropane	76	9.615	9.615	0.000	89	518120	100.0	101.7	
82 2-Hexanone	43	9.676	9.682	-0.006	94	581383	200.0	222.8	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	254603	100.0	109.3	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	294438	100.0	104.2	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	94	461082	100.0	101.2	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	877804	100.0	102.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	420704	100.0	100.0	
90 Ethylbenzene	106	10.533	10.534	-0.001	98	499116	100.0	103.8	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	92	289044	100.0	105.6	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	610286	100.0	103.9	
92 o-Xylene	106	11.050	11.051	-0.001	95	592117	100.0	105.8	
93 Styrene	104	11.075	11.069	0.006	94	1002147	100.0	105.8	
94 Bromoform	173	11.251	11.252	-0.001	97	157509	100.0	108.8	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	97	454842	100.0	104.3	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	1415676	100.0	103.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	412534	100.0	101.1	
100 Bromobenzene	156	11.738	11.739	-0.001	95	348475	100.0	104.5	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	82	104361	100.0	103.8	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	85	144469	100.0	105.0	
103 N-Propylbenzene	120	11.841	11.842	-0.001	98	387234	100.0	101.6	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	344800	100.0	104.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.999	11.994	0.005	96	381649	100.0	106.5	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	1140888	100.0	104.6	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	369832	100.0	104.0	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	931884	100.0	102.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	1156912	100.0	104.4	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	97	277157	100.0	99.8	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	1298722	100.0	102.1	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	97	613101	100.0	102.9	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	1086140	100.0	102.5	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	94	622850	100.0	101.8	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.828	-0.001	96	267418	100.0	103.4	
118 2,5-Dichlorobenzotrifluori	214	12.869	12.870	-0.001	0	279514	100.0	100.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	97	885288	100.0	102.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	97	577962	100.0	101.8	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	85	68470	100.0	108.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	1151252	300.0	319.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	814032	200.0	218.5	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	266863	100.0	102.7	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	97	94134	100.0	99.0	
128 Naphthalene	128	15.102	15.103	-0.001	97	990398	100.0	111.9	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	97	247660	100.0	104.3	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	122498	100.0	108.5	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	96	115009	100.0	109.5	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		200.0	209.7	
S 134 1,2-Dichloroethene, Total	96				0		200.0	206.9	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 4.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 4.00	Units: uL
voaW2clev1stR_00013	Amount Added: 4.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 8.00	Units: uL
voaWVA1stRest_00017	Amount Added: 4.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 4.00	Units: uL
voaWKetmix1st_00004	Amount Added: 4.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D06.D

Injection Date: 27-Jul-2017 02:26:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD20

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

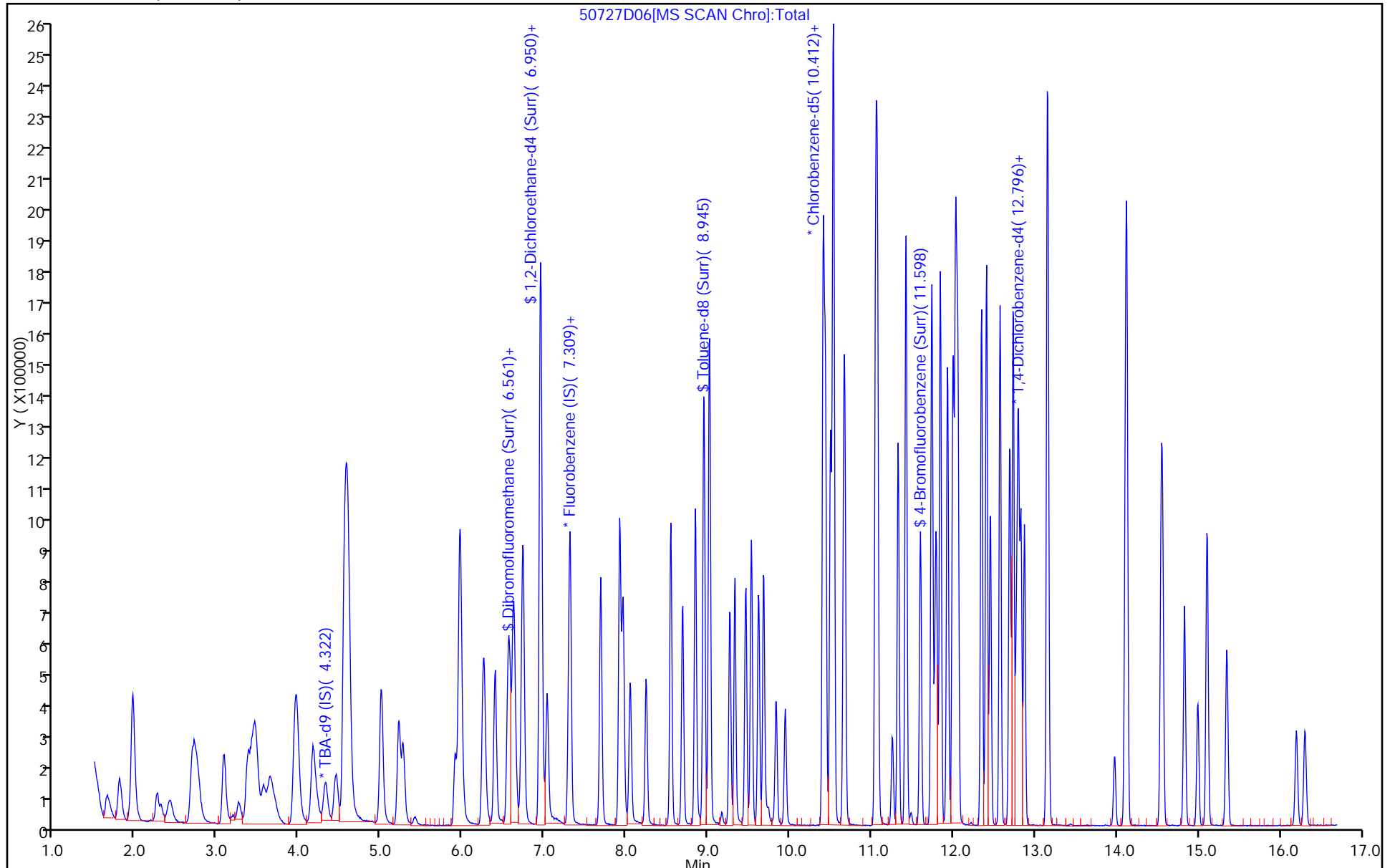
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D
 Lims ID: IC VSTD40
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 27-Jul-2017 03:13:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-008
 Misc. Info.: IC VSTD40
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:02 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 03:34:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.337	4.323	0.013	0	252542	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.299	7.298	0.001	99	561296	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.408	10.406	0.002	56	150914	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.768	12.773	-0.005	90	189484	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.575	6.574	0.001	94	522323	200.0	193.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.946	6.945	0.001	0	628942	200.0	190.9	
\$ 7 Toluene-d8 (Surr)	98	8.948	8.946	0.002	92	2000995	200.0	166.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.594	11.599	-0.005	92	793129	200.0	182.8	
11 Dichlorodifluoromethane	85	1.654	1.646	0.008	99	569791	200.0	174.6	
12 Chloromethane	50	1.812	1.804	0.008	99	580608	200.0	177.0	
13 Vinyl chloride	62	1.958	1.944	0.014	97	577090	200.0	173.4	
14 Butadiene	39	1.970	1.969	0.002	94	512032	200.0	169.3	
15 Bromomethane	94	2.268	2.254	0.014	91	289712	200.0	184.1	
16 Chloroethane	64	2.426	2.419	0.007	99	322589	200.0	176.3	
17 Dichlorofluoromethane	67	2.706	2.699	0.007	97	819020	200.0	177.0	
18 Trichlorofluoromethane	101	2.761	2.741	0.020	97	710415	200.0	173.7	
20 Ethyl ether	59	3.077	3.076	0.001	88	510033	200.0	191.7	
21 Acrolein	56	3.260	3.252	0.008	100	179414	250.0	267.6	
22 1,1-Dichloroethene	96	3.369	3.368	0.001	96	489503	200.0	178.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.442	3.441	0.001	93	534815	200.0	177.3	
24 Acetone	43	3.485	3.477	0.008	100	522287	400.0	355.8	
25 Iodomethane	142	3.576	3.562	0.014	98	834240	200.0	193.3	
26 Carbon disulfide	76	3.649	3.648	0.001	99	1211678	200.0	200.9	
28 3-Chloro-1-propene	76	3.947	3.946	0.001	92	366340	200.0	206.3	
30 Methyl acetate	43	3.978	3.976	0.002	97	1173609	400.0	403.7	
31 Methylene Chloride	84	4.166	4.165	0.001	88	653341	200.0	201.5	
32 2-Methyl-2-propanol	59	4.464	4.451	0.013	93	519054	2000.0	1737.9	
33 Acrylonitrile	53	4.562	4.554	0.008	99	2794353	2000.0	1977.2	
34 trans-1,2-Dichloroethene	96	4.580	4.584	-0.004	97	571864	200.0	182.6	
35 Methyl tert-butyl ether	73	4.604	4.603	0.001	95	1751345	200.0	208.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.000	4.998	0.002	92	708650	200.0	176.3	
37 1,1-Dichloroethane	63	5.219	5.217	0.002	96	1041269	200.0	191.3	
38 Vinyl acetate	43	5.273	5.272	0.001	97	1200052	200.0	216.8	
44 2,2-Dichloropropane	97	5.961	5.959	0.002	88	125406	200.0	180.9	
45 cis-1,2-Dichloroethene	96	5.967	5.965	0.002	80	687049	200.0	191.8	
46 2-Butanone (MEK)	43	5.979	5.978	0.001	98	795793	400.0	380.9	
49 Chlorobromomethane	128	6.247	6.245	0.002	94	313977	200.0	197.3	
51 Tetrahydrofuran	42	6.265	6.263	0.002	86	488432	400.0	401.4	
52 Chloroform	83	6.393	6.391	0.002	93	1037446	200.0	190.8	
53 1,1,1-Trichloroethane	97	6.551	6.549	0.002	98	777880	200.0	189.0	
54 Cyclohexane	56	6.618	6.622	-0.004	90	922281	200.0	181.6	
56 Carbon tetrachloride	117	6.721	6.726	-0.005	97	646700	200.0	188.8	
55 1,1-Dichloropropene	75	6.739	6.738	0.001	97	825970	200.0	185.8	
57 Isobutyl alcohol	41	6.946	6.945	0.001	51	587752	5000.0	5262.5	
58 Benzene	78	6.952	6.951	0.001	97	2487856	200.0	182.3	
59 1,2-Dichloroethane	62	7.031	7.030	0.001	97	767974	200.0	193.0	
62 n-Heptane	43	7.311	7.316	-0.005	87	573064	200.0	178.3	
64 Trichloroethene	130	7.682	7.687	-0.005	98	647404	200.0	188.5	
66 Methylcyclohexane	83	7.920	7.918	0.002	87	950167	200.0	183.0	
67 1,2-Dichloropropane	63	7.962	7.961	0.001	96	624637	200.0	196.5	
68 Dibromomethane	93	8.047	8.046	0.001	95	374289	200.0	201.0	
70 1,4-Dioxane	88	8.041	8.052	-0.011	39	135844	4000.0	4203.6	
71 Dichlorobromomethane	83	8.242	8.241	0.001	99	752352	200.0	205.8	
73 2-Chloroethyl vinyl ether	63	8.546	8.545	0.001	93	977190	400.0	427.3	
74 cis-1,3-Dichloropropene	75	8.686	8.685	0.001	96	933591	200.0	210.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.844	8.843	0.001	95	1476808	400.0	381.5	
76 Toluene	91	9.015	9.019	-0.004	98	2540251	200.0	168.8	
77 trans-1,3-Dichloropropene	75	9.264	9.269	-0.005	92	850338	200.0	207.7	
78 Ethyl methacrylate	69	9.325	9.330	-0.005	88	1001550	200.0	202.8	
79 1,1,2-Trichloroethane	97	9.459	9.457	0.002	91	569083	200.0	181.5	
80 Tetrachloroethene	164	9.532	9.530	0.002	97	486427	200.0	169.5	
81 1,3-Dichloropropane	76	9.617	9.615	0.002	89	1058308	200.0	182.6	
82 2-Hexanone	43	9.678	9.682	-0.004	93	1109580	400.0	373.7	
84 Chlorodibromomethane	129	9.830	9.834	-0.004	89	540065	200.0	203.8	
85 Ethylene Dibromide	107	9.945	9.944	0.001	98	607203	200.0	188.9	
86 3-Chlorobenzotrifluoride	180	10.408	10.412	-0.004	93	869071	200.0	167.6	
87 Chlorobenzene	112	10.432	10.437	-0.005	93	1704167	200.0	174.0	
88 4-Chlorobenzotrifluoride	180	10.499	10.498	0.001	96	810848	200.0	169.4	
89 1,1,1,2-Tetrachloroethane	131	10.529	10.528	0.001	94	590452	200.0	189.5	
90 Ethylbenzene	106	10.536	10.534	0.002	98	972676	200.0	177.9	
91 m-Xylene & p-Xylene	106	10.669	10.668	0.001	0	1217768	200.0	182.2	
92 o-Xylene	106	11.053	11.051	0.002	95	1159372	200.0	182.1	
93 Styrene	104	11.071	11.069	0.002	94	1967591	200.0	182.6	
94 Bromoform	173	11.253	11.252	0.001	96	350923	200.0	213.1	
96 2-Chlorobenzotrifluoride	180	11.326	11.325	0.001	96	875687	200.0	176.5	
97 Isopropylbenzene	105	11.418	11.422	-0.004	96	2665903	200.0	171.5	
100 Bromobenzene	156	11.734	11.739	-0.005	95	711710	200.0	193.5	
99 1,1,2,2-Tetrachloroethane	83	11.740	11.745	-0.005	93	870164	200.0	187.5	
102 trans-1,4-Dichloro-2-buten	53	11.777	11.775	0.002	85	225821	200.0	203.6	
101 1,2,3-Trichloropropane	110	11.795	11.793	0.002	85	299299	200.0	197.2	
103 N-Propylbenzene	120	11.844	11.842	0.002	97	774184	200.0	184.2	
104 2-Chlorotoluene	126	11.929	11.927	0.002	97	700158	200.0	192.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.996	11.994	0.002	96	742625	200.0	187.9	
106 1,3,5-Trimethylbenzene	105	12.026	12.031	-0.005	94	2188229	200.0	182.0	
107 4-Chlorotoluene	126	12.056	12.055	0.001	95	738280	200.0	188.2	
108 tert-Butylbenzene	119	12.342	12.347	-0.005	93	1809964	200.0	180.0	
110 1,2,4-Trimethylbenzene	105	12.403	12.408	-0.005	97	2260604	200.0	184.9	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.456	-0.004	97	542681	200.0	177.2	
112 sec-Butylbenzene	105	12.574	12.572	0.002	95	2474312	200.0	176.4	
113 1,3-Dichlorobenzene	146	12.689	12.688	0.001	97	1215884	200.0	185.0	
114 4-Isopropyltoluene	119	12.732	12.730	0.002	96	2107989	200.0	180.4	
115 1,4-Dichlorobenzene	146	12.799	12.797	0.002	95	1249173	200.0	185.1	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.828	0.001	95	497225	200.0	174.4	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.870	0.002	0	580659	200.0	188.5	
120 n-Butylbenzene	91	13.151	13.150	0.001	96	1729209	200.0	181.5	
121 1,2-Dichlorobenzene	146	13.158	13.156	0.002	97	1161072	200.0	185.4	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.971	0.002	85	151695	200.0	218.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.119	14.117	0.002	0	2228710	600.0	561.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.551	14.555	-0.004	0	1589536	400.0	386.9	
126 1,2,4-Trichlorobenzene	180	14.830	14.829	0.001	94	552245	200.0	192.7	
127 Hexachlorobutadiene	225	14.995	14.993	0.002	98	180140	200.0	171.8	
128 Naphthalene	128	15.104	15.103	0.001	97	2008065	200.0	205.7	
129 1,2,3-Trichlorobenzene	180	15.348	15.346	0.002	96	497473	200.0	190.0	
131 2,4,5-Trichlorotoluene	159	16.199	16.198	0.001	0	253594	200.0	203.8	
130 2,3,6-Trichlorotoluene	159	16.303	16.307	-0.004	97	237299	200.0	205.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		400.0	374.5	
S 133 Xylenes, Total	106				0		400.0	364.3	
S 135 1,3-Dichloropropene, Total	1				0		400.0	418.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 8.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 8.00	Units: uL
voaW2clev1stR_00013	Amount Added: 8.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 10.00	Units: uL
voaWVA1stRest_00017	Amount Added: 8.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 8.00	Units: uL
voaWKetmix1st_00004	Amount Added: 8.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D08.D

Injection Date: 27-Jul-2017 03:13:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD40

Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL

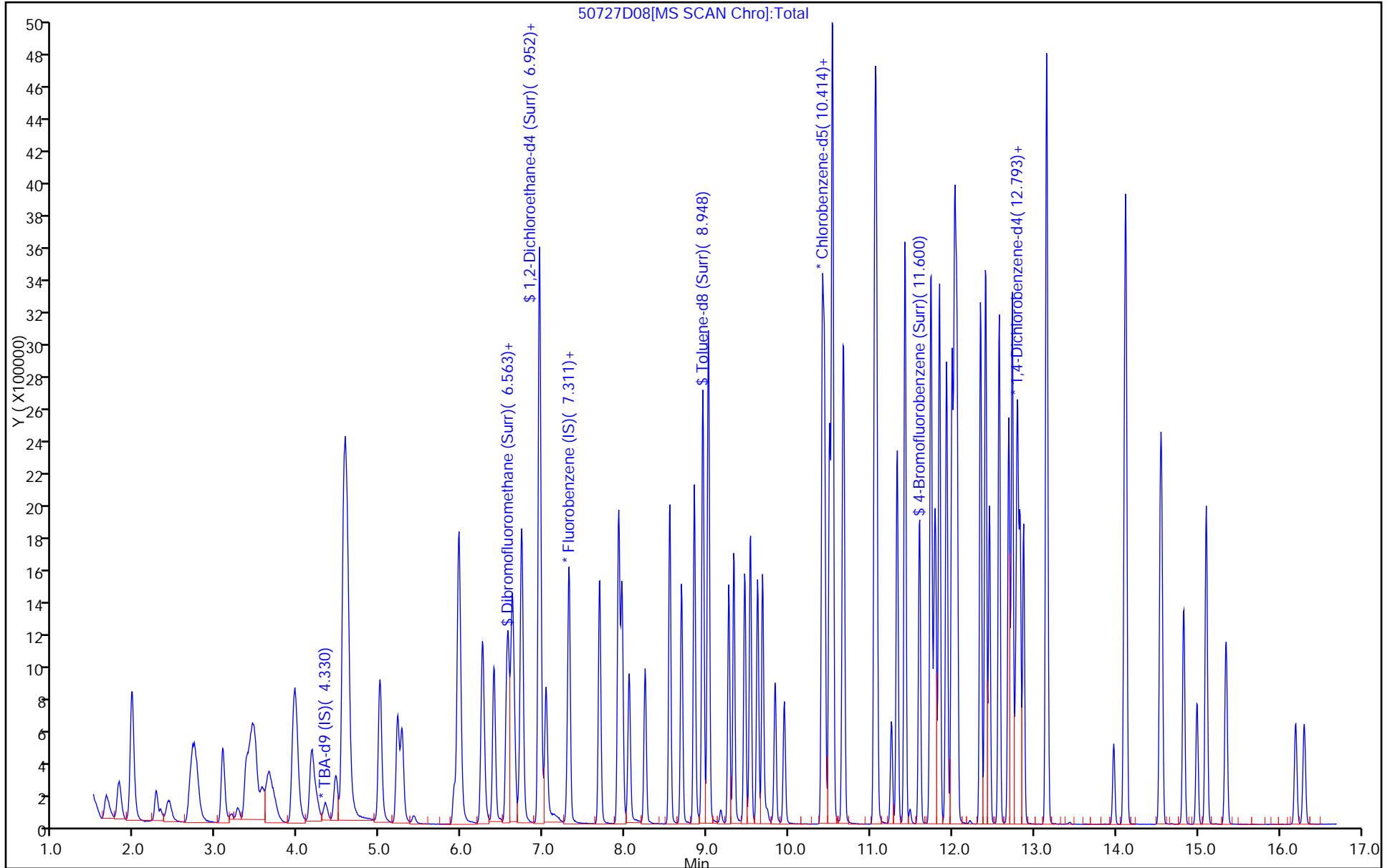
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D
 Lims ID: IC VSTD35
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 27-Jul-2017 04:00:30 ALS Bottle#: 10 Worklist Smp#: 10
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-010
 Misc. Info.: IC VSTD35
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:06 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 04:42:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.328	4.323	0.005	0	232894	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.296	7.298	-0.002	94	610088	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.406	-0.001	86	155120	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.771	12.773	-0.002	90	193547	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.572	6.574	-0.002	94	505019	175.0	172.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.943	6.945	-0.002	0	575099	175.0	160.6	
\$ 7 Toluene-d8 (Surr)	98	8.951	8.946	0.005	92	1992609	175.0	161.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.597	11.599	-0.002	87	748217	175.0	167.8	
11 Dichlorodifluoromethane	85	1.651	1.646	0.005	99	647803	175.0	182.6	
12 Chloromethane	50	1.809	1.804	0.005	99	595751	175.0	167.1	
13 Vinyl chloride	62	1.961	1.944	0.017	98	632153	175.0	174.7	
14 Butadiene	39	1.967	1.969	-0.001	93	579584	175.0	176.3	
15 Bromomethane	94	2.265	2.254	0.011	91	285707	175.0	167.0	
16 Chloroethane	64	2.417	2.419	-0.002	99	340168	175.0	171.1	
17 Dichlorofluoromethane	67	2.703	2.699	0.004	97	845136	175.0	168.0	
18 Trichlorofluoromethane	101	2.746	2.741	0.005	96	769762	175.0	173.1	
20 Ethyl ether	59	3.074	3.076	-0.002	88	475422	175.0	164.4	
21 Acrolein	56	3.269	3.252	0.017	99	154738	225.0	212.3	
22 1,1-Dichloroethene	96	3.372	3.368	0.004	96	540044	175.0	180.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.452	3.441	0.011	92	571742	175.0	174.4	
24 Acetone	43	3.482	3.477	0.005	99	447756	350.0	280.6	
25 Iodomethane	142	3.561	3.562	-0.001	96	811997	175.0	173.1	
26 Carbon disulfide	76	3.646	3.648	-0.002	99	1310811	175.0	200.0	
28 3-Chloro-1-propene	76	3.944	3.946	-0.002	93	365237	175.0	189.2	
30 Methyl acetate	43	3.975	3.976	-0.001	97	1009713	350.0	319.6	
31 Methylene Chloride	84	4.163	4.165	-0.002	89	602402	175.0	170.4	
32 2-Methyl-2-propanol	59	4.455	4.451	0.004	93	524619	1750.0	1904.7	
33 Acrylonitrile	53	4.553	4.554	-0.001	99	2362587	1750.0	1538.0	
34 trans-1,2-Dichloroethene	96	4.577	4.584	-0.007	98	595572	175.0	175.0	
35 Methyl tert-butyl ether	73	4.601	4.603	-0.002	96	1597553	175.0	175.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.997	4.998	-0.001	91	760411	175.0	174.1	
37 1,1-Dichloroethane	63	5.216	5.217	-0.001	96	1024340	175.0	173.1	
38 Vinyl acetate	43	5.270	5.272	-0.002	97	1068205	175.0	177.5	
44 2,2-Dichloropropane	97	5.958	5.959	-0.001	91	136605	175.0	181.3	
45 cis-1,2-Dichloroethene	96	5.964	5.965	-0.001	79	671208	175.0	172.4	
46 2-Butanone (MEK)	43	5.982	5.978	0.004	100	686266	350.0	302.2	
49 Chlorobromomethane	128	6.250	6.245	0.005	95	291754	175.0	168.6	
51 Tetrahydrofuran	42	6.262	6.263	-0.001	87	396477	350.0	299.8	
52 Chloroform	83	6.396	6.391	0.005	92	989929	175.0	167.5	
53 1,1,1-Trichloroethane	97	6.554	6.549	0.005	98	811476	175.0	181.4	
54 Cyclohexane	56	6.621	6.622	-0.001	90	1012965	175.0	183.5	
56 Carbon tetrachloride	117	6.718	6.726	-0.008	97	682784	175.0	183.4	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	97	866715	175.0	179.4	
57 Isobutyl alcohol	41	6.950	6.945	0.005	91	452876	4375.0	3730.6	
58 Benzene	78	6.956	6.951	0.005	97	2459963	175.0	165.8	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	708898	175.0	163.9	
62 n-Heptane	43	7.315	7.316	-0.001	88	633483	175.0	181.4	
64 Trichloroethene	130	7.686	7.687	-0.001	98	648262	175.0	173.7	
66 Methylcyclohexane	83	7.917	7.918	-0.001	87	1041060	175.0	184.4	
67 1,2-Dichloropropane	63	7.959	7.961	-0.002	95	596512	175.0	172.7	
68 Dibromomethane	93	8.045	8.046	-0.001	96	342853	175.0	169.4	
70 1,4-Dioxane	88	8.045	8.052	-0.007	39	115916	3500.0	3300.1	
71 Dichlorobromomethane	83	8.239	8.241	-0.002	100	712434	175.0	179.3	
73 2-Chloroethyl vinyl ether	63	8.543	8.545	-0.002	92	864836	350.0	347.9	
74 cis-1,3-Dichloropropene	75	8.689	8.685	0.004	96	881560	175.0	182.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.841	8.843	-0.002	95	1265241	350.0	318.0	
76 Toluene	91	9.018	9.019	-0.001	98	2496911	175.0	161.4	
77 trans-1,3-Dichloropropene	75	9.267	9.269	-0.002	93	781619	175.0	185.7	
78 Ethyl methacrylate	69	9.328	9.330	-0.002	88	905216	175.0	178.4	
79 1,1,2-Trichloroethane	97	9.462	9.457	0.005	90	523017	175.0	162.3	
80 Tetrachloroethene	164	9.529	9.530	-0.001	97	498519	175.0	169.0	
81 1,3-Dichloropropane	76	9.620	9.615	0.005	89	969241	175.0	162.7	
82 2-Hexanone	43	9.681	9.682	-0.001	94	977068	350.0	320.2	
84 Chlorodibromomethane	129	9.833	9.834	-0.001	90	489506	175.0	179.7	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	550826	175.0	166.7	
86 3-Chlorobenzotrifluoride	180	10.411	10.412	-0.001	93	874266	175.0	164.0	
87 Chlorobenzene	112	10.435	10.437	-0.002	94	1645967	175.0	163.5	
88 4-Chlorobenzotrifluoride	180	10.496	10.498	-0.002	95	826850	175.0	168.1	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	93	554351	175.0	173.1	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	962208	175.0	171.2	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1197380	175.0	174.3	
92 o-Xylene	106	11.050	11.051	-0.001	95	1130677	175.0	172.8	
93 Styrene	104	11.068	11.069	-0.001	94	1866053	175.0	168.4	
94 Bromoform	173	11.257	11.252	0.005	97	310948	175.0	183.7	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	96	840920	175.0	164.9	
97 Isopropylbenzene	105	11.421	11.422	-0.001	96	2681266	175.0	167.8	
100 Bromobenzene	156	11.737	11.739	-0.002	95	659984	175.0	175.7	
99 1,1,2,2-Tetrachloroethane	83	11.737	11.745	-0.008	94	762601	175.0	159.9	
102 trans-1,4-Dichloro-2-buten	53	11.774	11.775	-0.001	86	199800	175.0	176.4	
101 1,2,3-Trichloropropane	110	11.792	11.793	-0.001	85	255265	175.0	164.7	
103 N-Propylbenzene	120	11.841	11.842	-0.001	97	786064	175.0	183.1	
104 2-Chlorotoluene	126	11.926	11.927	-0.001	97	666236	175.0	179.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.993	11.994	-0.001	96	680717	175.0	168.7	
106 1,3,5-Trimethylbenzene	105	12.029	12.031	-0.002	94	2153457	175.0	175.3	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	95	719035	175.0	179.5	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	93	1844417	175.0	179.6	
110 1,2,4-Trimethylbenzene	105	12.406	12.408	-0.002	97	2182090	175.0	174.8	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.456	-0.001	97	525922	175.0	168.1	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	94	2514051	175.0	175.5	
113 1,3-Dichlorobenzene	146	12.692	12.688	0.004	96	1146674	175.0	170.8	
114 4-Isopropyltoluene	119	12.729	12.730	-0.001	96	2114911	175.0	177.2	
115 1,4-Dichlorobenzene	146	12.796	12.797	-0.001	95	1174377	175.0	170.4	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.828	-0.002	96	501975	175.0	172.4	
118 2,5-Dichlorobenzotrifluori	214	12.875	12.870	0.005	0	541324	175.0	172.1	
120 n-Butylbenzene	91	13.149	13.150	-0.001	96	1748217	175.0	179.6	
121 1,2-Dichlorobenzene	146	13.161	13.156	0.005	97	1081541	175.0	169.1	
122 1,2-Dibromo-3-Chloropropan	75	13.970	13.971	-0.001	86	125814	175.0	177.1	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.116	14.117	-0.001	0	2069215	525.0	509.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.548	14.555	-0.007	0	1443949	350.0	344.1	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	511830	175.0	174.8	
127 Hexachlorobutadiene	225	14.992	14.993	-0.001	98	182711	175.0	170.6	
128 Naphthalene	128	15.101	15.103	-0.002	97	1761559	175.0	176.7	
129 1,2,3-Trichlorobenzene	180	15.345	15.346	-0.001	96	453926	175.0	169.7	
131 2,4,5-Trichlorotoluene	159	16.196	16.198	-0.002	0	235417	175.0	185.2	
130 2,3,6-Trichlorotoluene	159	16.306	16.307	-0.001	97	211883	175.0	179.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	347.1	
S 134 1,2-Dichloroethene, Total	96				0		350.0	347.4	
S 135 1,3-Dichloropropene, Total	1				0		350.0	368.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260VOAPRI_00263	Amount Added: 7.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 9.00	Units: uL
voaWVA1stRest_00017	Amount Added: 7.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 7.00	Units: uL
voaW2clev1stR_00013	Amount Added: 7.00	Units: uL
voaWKetmix1st_00004	Amount Added: 7.00	Units: uL
VOA8260SURR_00071	Amount Added: 7.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D10.D

Injection Date: 27-Jul-2017 04:00:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD35

Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL

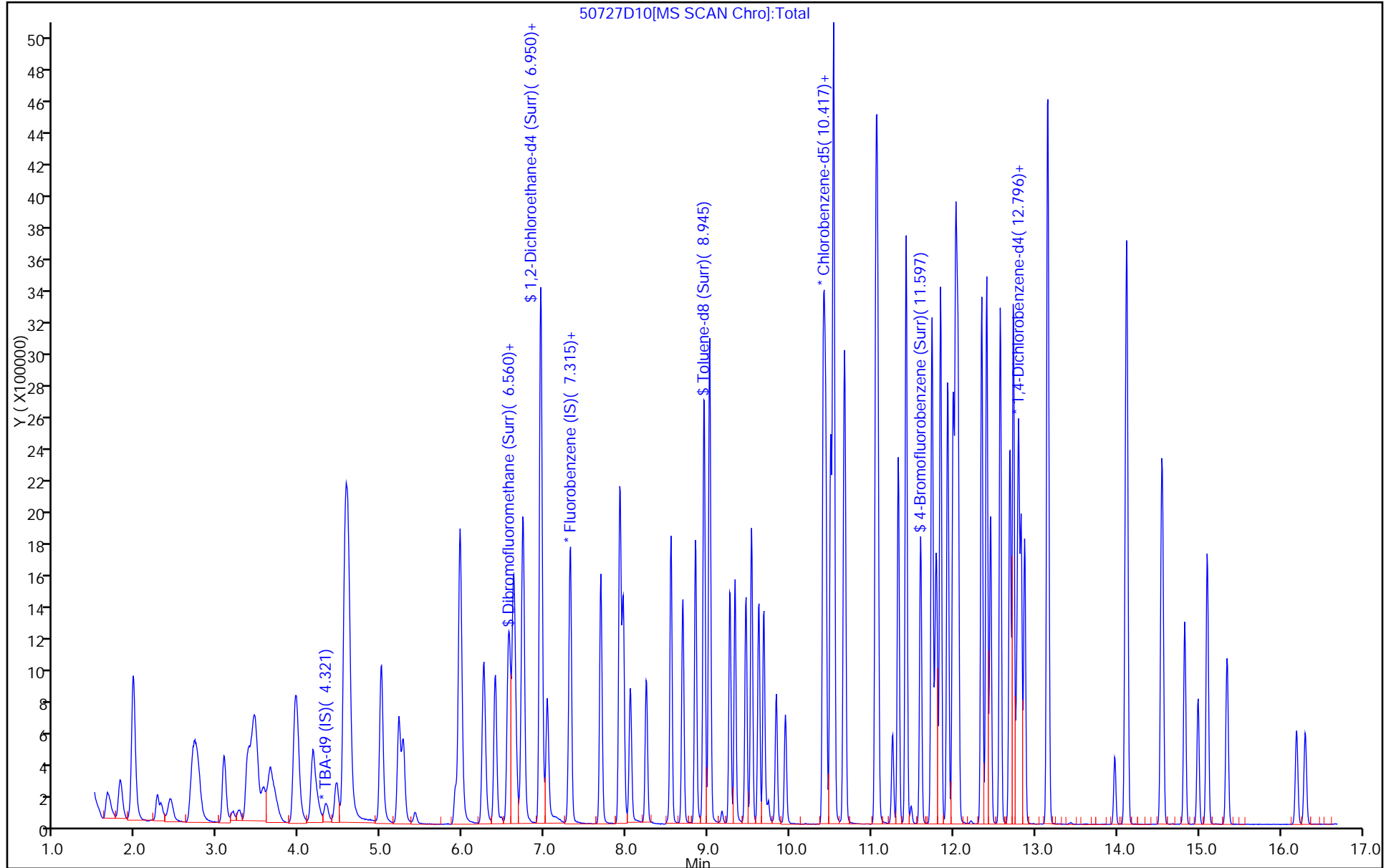
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Lims ID: IC VSTD50
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 27-Jul-2017 04:24:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-011
 Misc. Info.: IC VSTD50
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub12
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 05:09:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.341	4.323	0.018	0	184114	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	99	607808	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	161595	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.773	-0.001	89	194624	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	94	681339	250.0	233.0	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	795993	250.0	223.2	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	2678162	250.0	208.2	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	87	1033645	250.0	222.5	
11 Dichlorodifluoromethane	85	1.652	1.646	0.006	99	857078	250.0	242.5	
12 Chloromethane	50	1.804	1.804	0.000	99	811941	250.0	228.6	
13 Vinyl chloride	62	1.956	1.944	0.012	98	867536	250.0	240.7	
14 Butadiene	39	1.968	1.969	0.000	94	815610	250.0	249.1	
15 Bromomethane	94	2.266	2.254	0.012	90	377950	250.0	221.8	
16 Chloroethane	64	2.406	2.419	-0.013	99	414342	250.0	209.1	
17 Dichlorofluoromethane	67	2.698	2.699	-0.001	97	1057272	250.0	211.0	
18 Trichlorofluoromethane	101	2.728	2.741	-0.013	97	1017488	250.0	229.7	
20 Ethyl ether	59	3.069	3.076	-0.007	88	612640	250.0	212.6	
21 Acrolein	56	3.264	3.252	0.012	98	183852	275.0	253.2	
22 1,1-Dichloroethene	96	3.367	3.368	-0.001	97	745282	250.0	250.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.428	3.441	-0.013	92	774058	250.0	237.0	
24 Acetone	43	3.483	3.477	0.006	100	630881	500.0	396.9	
25 Iodomethane	142	3.580	3.562	0.018	97	1099819	250.0	235.3	
26 Carbon disulfide	76	3.647	3.648	-0.001	99	1856339	250.0	284.2	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	93	500032	250.0	260.0	
30 Methyl acetate	43	3.976	3.976	0.000	97	1447736	500.0	459.9	
31 Methylene Chloride	84	4.164	4.165	-0.001	88	813282	250.0	232.1	
32 2-Methyl-2-propanol	59	4.468	4.451	0.017	94	568135	2500.0	2609.2	
33 Acrylonitrile	53	4.553	4.554	-0.001	98	3495451	2500.0	2284.0	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	98	806194	250.0	237.8	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	96	2170401	250.0	238.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.998	-0.007	92	1101558	250.0	253.1	
37 1,1-Dichloroethane	63	5.210	5.217	-0.007	96	1376176	250.0	233.4	
38 Vinyl acetate	43	5.271	5.272	-0.001	97	1523056	250.0	254.0	
44 2,2-Dichloropropane	97	5.959	5.959	0.000	91	188250	250.0	250.8	
45 cis-1,2-Dichloroethene	96	5.959	5.965	-0.006	79	900432	250.0	232.2	
46 2-Butanone (MEK)	43	5.983	5.978	0.005	98	962704	500.0	425.5	
49 Chlorobromomethane	128	6.245	6.245	0.000	94	394763	250.0	229.0	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	609910	500.0	462.9	
52 Chloroform	83	6.391	6.391	0.000	92	1319564	250.0	224.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	1097196	250.0	246.2	
54 Cyclohexane	56	6.616	6.622	-0.006	90	1394833	250.0	253.7	
56 Carbon tetrachloride	117	6.719	6.726	-0.007	97	923177	250.0	248.9	
55 1,1-Dichloropropene	75	6.737	6.738	-0.001	96	1178056	250.0	244.7	
57 Isobutyl alcohol	41	6.950	6.945	0.005	68	715201	6250.0	5913.6	
58 Benzene	78	6.950	6.951	-0.001	97	3249284	250.0	219.9	
59 1,2-Dichloroethane	62	7.029	7.030	-0.001	97	969148	250.0	225.0	
62 n-Heptane	43	7.309	7.316	-0.007	89	922592	250.0	265.1	
64 Trichloroethene	130	7.686	7.687	-0.001	98	887332	250.0	238.6	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	1432791	250.0	254.8	
67 1,2-Dichloropropane	63	7.960	7.961	-0.001	95	793667	250.0	230.6	
68 Dibromomethane	93	8.045	8.046	-0.001	97	470836	250.0	233.5	
70 1,4-Dioxane	88	8.039	8.052	-0.013	38	187034	5000.0	5344.8	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	945026	250.0	238.8	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	1234429	500.0	498.5	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	96	1203144	250.0	250.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.842	8.843	-0.001	94	1863520	500.0	449.6	
76 Toluene	91	9.019	9.019	0.000	97	3254284	250.0	202.0	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	93	1070347	250.0	244.1	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	88	1271580	250.0	240.5	
79 1,1,2-Trichloroethane	97	9.457	9.457	0.000	91	718069	250.0	213.9	
80 Tetrachloroethene	164	9.530	9.530	0.000	97	683462	250.0	222.4	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	89	1320887	250.0	212.9	
82 2-Hexanone	43	9.676	9.682	-0.006	93	1418811	500.0	446.3	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	672369	250.0	237.0	
85 Ethylene Dibromide	107	9.943	9.944	-0.001	99	773664	250.0	224.7	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	1290067	250.0	232.3	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	2170926	250.0	207.0	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	96	1226371	250.0	239.3	
89 1,1,1,2-Tetrachloroethane	131	10.527	10.528	-0.001	94	751692	250.0	225.4	
90 Ethylbenzene	106	10.533	10.534	-0.001	97	1304914	250.0	222.8	
91 m-Xylene & p-Xylene	106	10.667	10.668	-0.001	0	1614353	250.0	225.6	
92 o-Xylene	106	11.051	11.051	0.000	95	1518391	250.0	222.7	
93 Styrene	104	11.069	11.069	0.000	94	2462559	250.0	213.4	
94 Bromoform	173	11.257	11.252	0.005	98	443094	250.0	251.3	
96 2-Chlorobenzotrifluoride	180	11.324	11.325	-0.001	95	1244752	250.0	234.2	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	3502176	250.0	210.4	
100 Bromobenzene	156	11.738	11.739	-0.001	95	889999	250.0	235.6	
99 1,1,2,2-Tetrachloroethane	83	11.738	11.745	-0.007	95	1078742	250.0	217.1	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	84	299994	250.0	263.4	
101 1,2,3-Trichloropropane	110	11.793	11.793	0.000	84	371250	250.0	238.1	
103 N-Propylbenzene	120	11.841	11.842	-0.001	96	1069171	250.0	247.7	
104 2-Chlorotoluene	126	11.927	11.927	0.000	97	907016	250.0	243.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.994	11.994	0.000	96	1010916	250.0	249.1	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	95	2828999	250.0	229.0	
107 4-Chlorotoluene	126	12.054	12.055	-0.001	96	970169	250.0	240.8	
108 tert-Butylbenzene	119	12.346	12.347	-0.001	92	2446270	250.0	236.9	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	2860516	250.0	227.8	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	96	801099	250.0	254.7	
112 sec-Butylbenzene	105	12.571	12.572	-0.001	95	3330508	250.0	231.2	
113 1,3-Dichlorobenzene	146	12.687	12.688	-0.001	96	1545747	250.0	229.0	
114 4-Isopropyltoluene	119	12.730	12.730	0.000	95	2809716	250.0	234.1	
115 1,4-Dichlorobenzene	146	12.797	12.797	0.000	95	1574222	250.0	227.2	
116 2,4-Dichloro-1-(trifluorom	214	12.827	12.828	-0.001	94	771761	250.0	263.5	
118 2,5-Dichlorobenzotrifluori	214	12.870	12.870	0.000	0	797256	250.0	252.0	
120 n-Butylbenzene	91	13.149	13.150	-0.001	95	2372703	250.0	242.4	
121 1,2-Dichlorobenzene	146	13.155	13.156	-0.001	96	1435184	250.0	223.1	
122 1,2-Dibromo-3-Chloropropan	75	13.971	13.971	0.000	86	182290	250.0	255.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.117	14.117	0.000	0	3049908	750.0	747.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.555	14.555	0.000	0	2191624	500.0	519.4	
126 1,2,4-Trichlorobenzene	180	14.828	14.829	-0.001	95	755690	250.0	256.7	
127 Hexachlorobutadiene	225	14.993	14.993	0.000	98	282046	250.0	261.8	
128 Naphthalene	128	15.102	15.103	-0.001	98	2561966	250.0	255.5	
129 1,2,3-Trichlorobenzene	180	15.346	15.346	0.000	96	693791	250.0	258.0	
131 2,4,5-Trichlorotoluene	159	16.197	16.198	-0.001	0	452516	250.0	354.0	
130 2,3,6-Trichlorotoluene	159	16.301	16.307	-0.006	98	417201	250.0	350.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		500.0	470.0	
S 133 Xylenes, Total	106				0		500.0	448.3	
S 135 1,3-Dichloropropene, Total	1				0		500.0	494.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOAPRI_00263	Amount Added: 10.00	Units: uL
voaWAcro1stRe_00016	Amount Added: 11.00	Units: uL
voaWVA1stRest_00017	Amount Added: 10.00	Units: uL
voaWEEmix1stR_00009	Amount Added: 10.00	Units: uL
voaW2clev1stR_00013	Amount Added: 10.00	Units: uL
voaWKetmix1st_00004	Amount Added: 10.00	Units: uL
VOA8260INT_00072	Amount Added: 2.00	Units: uL
VOA8260SURR_00071	Amount Added: 10.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Injection Date: 27-Jul-2017 04:24:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: IC VSTD50

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

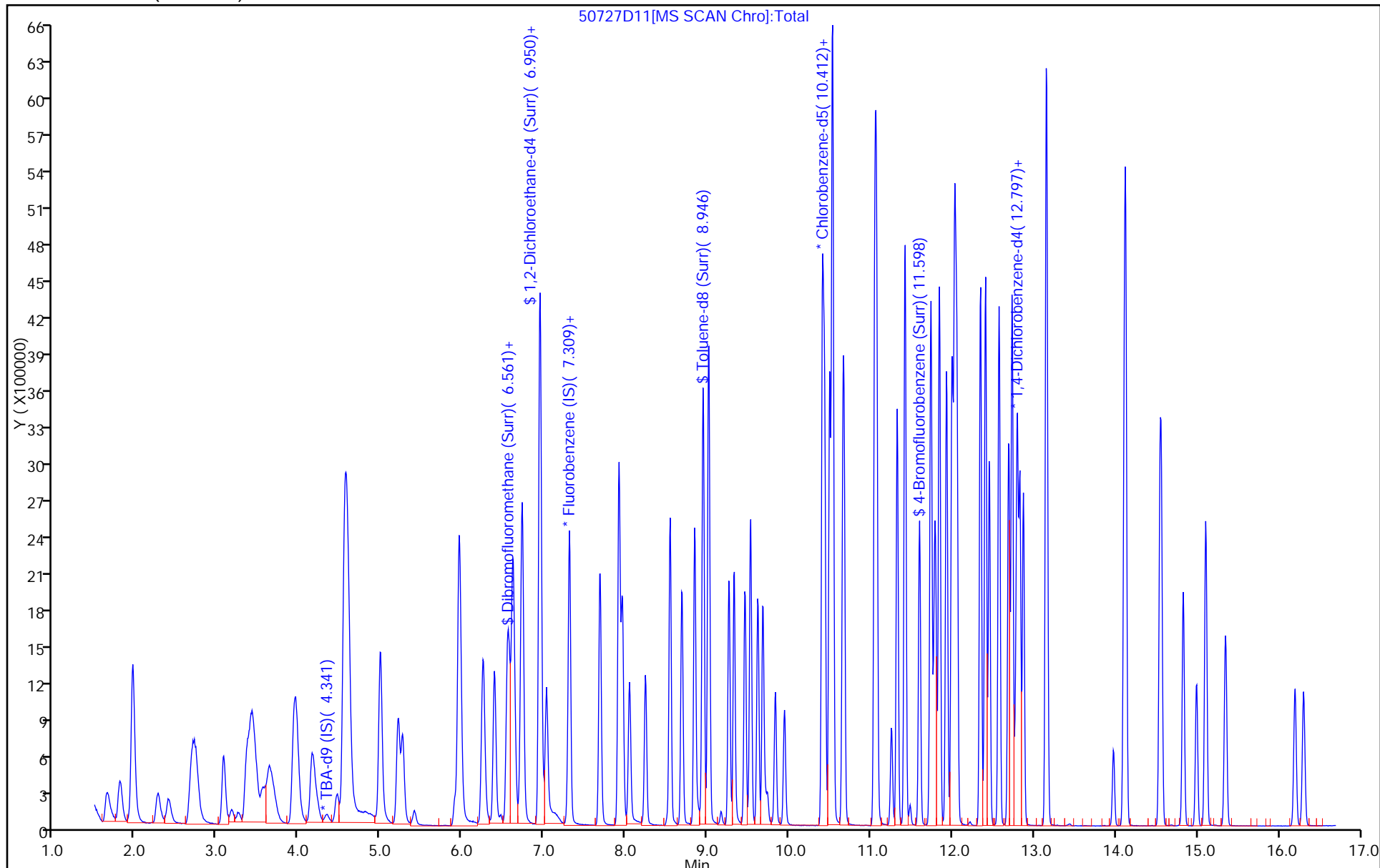
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: ICV 180-213537/11 Calibration Date: 06/08/2017 09:46
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 06:03
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 08:59
 Lab File ID: 50608D11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2709	0.2212	0.1000	8.17	10.0	-18.3	30.0
Chloromethane	Ave	0.4329	0.4242	0.1000	9.80	10.0	-2.0	30.0
Vinyl chloride	Ave	0.3458	0.3107	0.1000	8.98	10.0	-10.2	30.0
1,3-Butadiene	Lin2		0.2864	0.0100	7.84	10.0	-21.6	30.0
Bromomethane	Lin2		0.1898	0.0500	9.81	10.0	-1.9	30.0
Chloroethane	Lin2		0.2063	0.0500	10.1	10.0	0.9	30.0
Trichlorofluoromethane	Ave	0.3410	0.2583	0.1000	7.58	10.0	-24.2	30.0
Ethyl ether	Ave	0.3279	0.3346	0.0100	10.2	10.0	2.0	30.0
Acrolein	Ave	0.1045	0.1124	0.0100	32.3	30.0	7.6	30.0
1,1-Dichloroethene	Ave	0.2926	0.2910	0.1000	9.95	10.0	-0.5	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2418	0.1802	0.1000	7.45	10.0	-25.5	30.0
Acetone	Qua		0.2822	0.0500	23.1	20.0	15.6	30.0
Iodomethane	Ave	0.4333	0.4908	0.0100	11.3	10.0	13.3	30.0
Carbon disulfide	Ave	0.8088	0.7954	0.1000	9.83	10.0	-1.7	30.0
Allyl chloride	Ave	0.2430	0.2306	0.0100	9.49	10.0	-5.1	30.0
Methyl acetate	Ave	0.3801	0.4336	0.1000	22.8	20.0	14.1	30.0
Methylene Chloride	Ave	0.3492	0.4002	0.1000	11.5	10.0	14.6	30.0
tert-Butyl alcohol	Ave	1.248	1.168	0.0100	93.6	100	-6.4	30.0
Acrylonitrile	Ave	0.1755	0.1934	0.0100	110	100	10.2	30.0
trans-1,2-Dichloroethene	Ave	0.3447	0.3329	0.1000	9.66	10.0	-3.4	30.0
Methyl tert-butyl ether	Ave	1.034	1.115	0.1000	10.8	10.0	7.7	30.0
Hexane	Ave	0.6057	0.5487	0.0100	9.06	10.0	-9.4	30.0
1,1-Dichloroethane	Ave	0.6514	0.6617	0.2000	10.2	10.0	1.6	30.0
Vinyl acetate	Ave	0.9505	0.9087	0.0100	9.56	10.0	-4.4	30.0
2,2-Dichloropropane	Ave	0.0872	0.0821	0.0100	9.42	10.0	-5.8	30.0
cis-1,2-Dichloroethene	Ave	0.3837	0.3912	0.1000	10.2	10.0	1.9	30.0
2-Butanone (MEK)	Ave	0.3258	0.3792	0.0500	23.3	20.0	16.4	30.0
Chlorobromomethane	Ave	0.1693	0.1639	0.0100	9.68	10.0	-3.2	30.0
Tetrahydrofuran	Lin2		0.1733	0.0100	20.5	20.0	2.5	30.0
Chloroform	Ave	0.5777	0.5936	0.2000	10.3	10.0	2.8	30.0
1,1,1-Trichloroethane	Ave	0.4683	0.4474	0.1000	9.55	10.0	-4.5	30.0
Cyclohexane	Ave	0.6972	0.6494	0.1000	9.31	10.0	-6.9	30.0
Carbon tetrachloride	Ave	0.4116	0.3644	0.1000	8.85	10.0	-11.5	30.0
1,1-Dichloropropene	Ave	0.4922	0.4596	0.0100	9.34	10.0	-6.6	30.0
Isobutyl alcohol	Ave	0.0173	0.0182	0.0100	262	250	4.8	30.0
Benzene	Ave	1.438	1.460	0.5000	10.2	10.0	1.5	30.0
1,2-Dichloroethane	Ave	0.4731	0.4868	0.1000	10.3	10.0	2.9	30.0
n-Heptane	Ave	0.5522	0.5057	0.0100	9.16	10.0	-8.4	30.0
Trichloroethene	Ave	0.3520	0.3483	0.2000	9.90	10.0	-1.0	30.0
Methylcyclohexane	Ave	0.5987	0.5521	0.1000	9.22	10.0	-7.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: ICV 180-213537/11 Calibration Date: 06/08/2017 09:46
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 06:03
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 08:59
 Lab File ID: 50608D11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.3997	0.4024	0.1000	10.1	10.0	0.7	30.0
1,4-Dioxane	Ave	0.0037	0.0042*	0.0100	223	200	11.6	30.0
Dibromomethane	Ave	0.2063	0.2099	0.0100	10.2	10.0	1.8	30.0
Dichlorobromomethane	Ave	0.4374	0.4319	0.2000	9.87	10.0	-1.3	30.0
2-Chloroethyl vinyl ether	Ave	0.2689	0.2934	0.0100	21.8	20.0	9.1	30.0
cis-1,3-Dichloropropene	Ave	0.5847	0.5864	0.2000	10.0	10.0	0.3	30.0
4-Methyl-2-pentanone (MIBK)	Ave	2.177	2.496	0.1000	22.9	20.0	14.6	30.0
Toluene	Ave	5.829	6.150	0.4000	10.6	10.0	5.5	30.0
trans-1,3-Dichloropropene	Ave	1.975	2.069	0.1000	10.5	10.0	4.8	30.0
Ethyl methacrylate	Ave	2.098	2.314	0.0100	11.0	10.0	10.3	30.0
1,1,2-Trichloroethane	Ave	1.178	1.263	0.1000	10.7	10.0	7.2	30.0
Tetrachloroethene	Ave	1.115	1.094	0.2000	9.81	10.0	-1.9	30.0
1,3-Dichloropropane	Ave	2.076	2.315	0.0100	11.2	10.0	11.5	30.0
2-Hexanone	Ave	1.728	2.120	0.1000	24.5	20.0	22.6	30.0
Chlorodibromomethane	Ave	1.141	1.155	0.1000	10.1	10.0	1.2	30.0
1,2-Dibromoethane	Ave	1.167	1.252	0.1000	10.7	10.0	7.3	30.0
3-Chlorobenzotrifluoride	Ave	1.994	1.877	0.0100	9.41	10.0	-5.9	30.0
Chlorobenzene	Ave	3.706	3.948	0.5000	10.7	10.0	6.5	30.0
4-Chlorobenzotrifluoride	Ave	1.906	1.758	0.0100	9.22	10.0	-7.8	30.0
1,1,1,2-Tetrachloroethane	Ave	1.260	1.282	0.0100	10.2	10.0	1.7	30.0
Ethylbenzene	Ave	2.045	2.090	0.1000	10.2	10.0	2.2	30.0
m-Xylene & p-Xylene	Ave	2.507	2.631	0.1000	10.5	10.0	4.9	30.0
o-Xylene	Ave	2.466	2.582	0.3000	10.5	10.0	4.7	30.0
Styrene	Ave	4.196	4.497	0.3000	10.7	10.0	7.2	30.0
Bromoform	Ave	0.8110	0.8064	0.1000	9.94	10.0	-0.6	30.0
2-Chlorobenzotrifluoride	Ave	1.996	1.943	0.0100	9.73	10.0	-2.7	30.0
Isopropylbenzene	Ave	6.049	6.313	0.1000	10.4	10.0	4.4	30.0
1,1,2,2-Tetrachloroethane	Ave	1.604	1.725	0.3000	10.8	10.0	7.6	30.0
Bromobenzene	Ave	1.047	1.078	0.0100	10.3	10.0	3.0	30.0
trans-1,4-Dichloro-2-butene	Ave	0.4146	0.3816	0.0100	9.20	10.0	-8.0	30.0
1,2,3-Trichloropropane	Lin2		0.3835	0.0100	10.7	10.0	6.6	30.0
N-Propylbenzene	Ave	1.225	1.144	0.0100	9.34	10.0	-6.6	30.0
2-Chlorotoluene	Ave	1.034	1.003	0.0100	9.70	10.0	-3.0	30.0
3-Chlorotoluene	Ave	1.113	1.082	0.0100	9.72	10.0	-2.8	30.0
1,3,5-Trimethylbenzene	Ave	3.512	3.426	0.0100	9.76	10.0	-2.4	30.0
4-Chlorotoluene	Ave	1.076	1.058	0.0100	9.83	10.0	-1.7	30.0
tert-Butylbenzene	Ave	3.044	2.889	0.0100	9.49	10.0	-5.1	30.0
1,2,4-Trimethylbenzene	Ave	3.558	3.603	0.0100	10.1	10.0	1.3	30.0
3,4-Dichlorobenzotrifluoride	Ave	1.065	0.9625	0.0100	9.03	10.0	-9.7	30.0
sec-Butylbenzene	Ave	4.140	4.014	0.0100	9.69	10.0	-3.1	30.0
1,3-Dichlorobenzene	Ave	1.938	1.961	0.6000	10.1	10.0	1.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: ICV 180-213537/11 Calibration Date: 06/08/2017 09:46
 Instrument ID: CHHP5 Calib Start Date: 06/08/2017 06:03
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 06/08/2017 08:59
 Lab File ID: 50608D11.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.564	3.467	0.0100	9.73	10.0	-2.7	30.0
1,4-Dichlorobenzene	Ave	1.994	2.008	0.5000	10.1	10.0	0.7	30.0
2,4-Dichlorobenzotrifluoride	Ave	0.996	0.9184	0.0100	9.22	10.0	-7.8	30.0
2,5-Dichlorobenzotrifluoride	Ave	1.110	1.035	0.0100	9.32	10.0	-6.8	30.0
n-Butylbenzene	Ave	3.055	3.016	0.0100	9.87	10.0	-1.3	30.0
1,2-Dichlorobenzene	Ave	1.821	1.921	0.4000	10.6	10.0	5.5	30.0
1,2-Dibromo-3-Chloropropane	Lin2		0.2416	0.0500	9.57	10.0	-4.3	30.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.326	1.353	0.0100	30.6	30.0	2.1	30.0
2,3- & 3,4- Dichlorotoluene	Ave	1.398	1.428	0.0100	20.4	20.0	2.2	30.0
1,2,4-Trichlorobenzene	Ave	1.035	1.031	0.2000	9.96	10.0	-0.4	30.0
Hexachlorobutadiene	Ave	0.4576	0.4515	0.0100	9.87	10.0	-1.3	30.0
Naphthalene	Ave	3.272	3.470	0.0100	10.6	10.0	6.1	30.0
1,2,3-Trichlorobenzene	Ave	0.9612	0.9818	0.0100	10.2	10.0	2.1	30.0
2,4,5-Trichlorotoluene	Ave	0.5946	0.5645	0.0100	9.49	10.0	-5.1	30.0
2,3,6-Trichlorotoluene	Ave	0.5418	0.5340	0.0100	9.86	10.0	-1.4	30.0
Dibromofluoromethane (Surr)	Ave	0.2557	0.2773		10.8	10.0	8.4	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3525	0.3815		10.8	10.0	8.2	30.0
Toluene-d8 (Surr)	Ave	4.001	4.410		11.0	10.0	10.2	30.0
4-Bromofluorobenzene (Surr)	Ave	1.588	1.812		11.4	10.0	14.1	30.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D11.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 08-Jun-2017 09:46:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-011
 Misc. Info.: ICV
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist:

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 04:01:44 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf

Date: 09-Jun-2017 03:32:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.343	4.344	-0.001	0	237564	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.336	7.337	-0.001	98	310218	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.434	-0.001	87	78824	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.776	-0.001	93	117362	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.612	6.613	-0.001	94	86011	50.0	54.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.983	6.978	0.005	0	118340	50.0	54.1	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.980	-0.001	93	347581	50.0	55.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.619	11.614	0.005	88	142792	50.0	57.0	
11 Dichlorodifluoromethane	85	1.624	1.619	0.005	98	68632	50.0	40.8	
12 Chloromethane	50	1.824	1.826	-0.002	99	131584	50.0	49.0	
13 Vinyl chloride	62	1.946	1.947	-0.001	97	96384	50.0	44.9	
14 Butadiene	39	1.989	1.972	0.017	96	88845	50.0	39.2	M
15 Bromomethane	94	2.299	2.318	-0.019	89	58874	50.0	49.0	
16 Chloroethane	64	2.439	2.446	-0.007	98	64001	50.0	50.5	
18 Trichlorofluoromethane	101	2.725	2.720	0.005	91	80136	50.0	37.9	
17 Dichlorofluoromethane	67	2.719	2.726	-0.007	93	158349	50.0	49.9	
20 Ethyl ether	59	3.114	3.109	0.005	96	103797	50.0	51.0	
21 Acrolein	56	3.297	3.304	-0.007	98	104612	150.0	161.4	
22 1,1-Dichloroethene	96	3.412	3.413	-0.001	97	90263	50.0	49.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.467	3.462	0.005	73	55911	50.0	37.3	
24 Acetone	43	3.510	3.511	-0.001	98	175066	100.0	115.6	
25 Iodomethane	142	3.607	3.602	0.005	97	152259	50.0	56.6	
26 Carbon disulfide	76	3.698	3.693	0.005	100	246740	50.0	49.2	
28 3-Chloro-1-propene	76	4.002	3.991	0.011	90	71537	50.0	47.5	
30 Methyl acetate	43	4.021	4.022	-0.001	99	269026	100.0	114.1	
31 Methylene Chloride	84	4.215	4.216	-0.001	98	124157	50.0	57.3	
32 2-Methyl-2-propanol	59	4.483	4.478	0.005	98	138688	500.0	467.9	
33 Acrylonitrile	53	4.592	4.594	-0.002	100	599932	500.0	551.1	
34 trans-1,2-Dichloroethene	96	4.629	4.630	-0.001	94	103266	50.0	48.3	
35 Methyl tert-butyl ether	73	4.647	4.648	-0.001	99	345758	50.0	53.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.043	5.044	-0.001	94	170220	50.0	45.3	
37 1,1-Dichloroethane	63	5.256	5.257	-0.001	96	205284	50.0	50.8	
38 Vinyl acetate	43	5.310	5.311	-0.001	97	281884	50.0	47.8	
44 2,2-Dichloropropane	97	5.998	5.999	-0.001	55	25482	50.0	47.1	
45 cis-1,2-Dichloroethene	96	6.004	6.005	-0.001	84	121346	50.0	51.0	
46 2-Butanone (MEK)	43	6.016	6.023	-0.007	99	235266	100.0	116.4	
49 Chlorobromomethane	128	6.284	6.279	0.005	92	50831	50.0	48.4	
51 Tetrahydrofuran	42	6.308	6.303	0.005	92	107528	100.0	102.5	
52 Chloroform	83	6.430	6.431	-0.001	95	184158	50.0	51.4	
53 1,1,1-Trichloroethane	97	6.588	6.589	-0.001	98	138783	50.0	47.8	
54 Cyclohexane	56	6.655	6.656	-0.001	95	201457	50.0	46.6	
56 Carbon tetrachloride	117	6.764	6.759	0.005	96	113055	50.0	44.3	
55 1,1-Dichloropropene	75	6.776	6.777	-0.001	93	142563	50.0	46.7	
57 Isobutyl alcohol	41	6.977	6.978	-0.001	91	140916	1250.0	1310.6	
58 Benzene	78	6.989	6.990	-0.001	97	452849	50.0	50.8	
59 1,2-Dichloroethane	62	7.068	7.069	-0.001	96	151004	50.0	51.4	
62 n-Heptane	43	7.354	7.349	0.005	96	156884	50.0	45.8	
64 Trichloroethene	130	7.719	7.720	-0.001	97	108052	50.0	49.5	
66 Methylcyclohexane	83	7.957	7.958	-0.001	93	171264	50.0	46.1	
67 1,2-Dichloropropane	63	7.993	7.994	-0.001	94	124831	50.0	50.3	
68 Dibromomethane	93	8.084	8.079	0.005	94	65128	50.0	50.9	
70 1,4-Dioxane	88	8.078	8.085	-0.007	41	25922	1000.0	1116.1	
71 Dichlorobromomethane	83	8.273	8.274	-0.001	98	133981	50.0	49.4	
73 2-Chloroethyl vinyl ether	63	8.577	8.578	-0.001	92	182013	100.0	109.1	
74 cis-1,3-Dichloropropene	75	8.723	8.718	0.005	92	181913	50.0	50.1	
75 4-Methyl-2-pentanone (MIBK)	43	8.875	8.876	-0.001	98	393534	100.0	114.6	
76 Toluene	91	9.052	9.047	0.005	98	484800	50.0	52.8	
77 trans-1,3-Dichloropropene	75	9.295	9.296	-0.001	97	163082	50.0	52.4	
78 Ethyl methacrylate	69	9.356	9.357	-0.001	93	182430	50.0	55.1	
79 1,1,2-Trichloroethane	97	9.490	9.491	-0.001	92	99536	50.0	53.6	
80 Tetrachloroethene	164	9.563	9.564	-0.001	98	86230	50.0	49.1	
81 1,3-Dichloropropane	76	9.648	9.649	-0.001	96	182481	50.0	55.8	
82 2-Hexanone	43	9.709	9.710	-0.001	98	334173	100.0	122.6	
84 Chlorodibromomethane	129	9.861	9.862	-0.001	93	91074	50.0	50.6	
85 Ethylene Dibromide	107	9.976	9.977	-0.001	98	98714	50.0	53.7	
86 3-Chlorobenzotrifluoride	180	10.439	10.434	0.005	91	147956	50.0	47.1	
87 Chlorobenzene	112	10.463	10.464	-0.001	93	311176	50.0	53.3	
88 4-Chlorobenzotrifluoride	180	10.524	10.525	-0.001	95	138541	50.0	46.1	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.555	-0.001	93	101016	50.0	50.9	
90 Ethylbenzene	106	10.560	10.561	-0.001	99	164729	50.0	51.1	
91 m-Xylene & p-Xylene	106	10.694	10.695	-0.001	0	207361	50.0	52.5	
92 o-Xylene	106	11.071	11.072	-0.001	97	203529	50.0	52.4	
93 Styrene	104	11.096	11.097	-0.001	95	354465	50.0	53.6	
94 Bromoform	173	11.278	11.279	-0.001	97	63567	50.0	49.7	
96 2-Chlorobenzotrifluoride	180	11.345	11.346	-0.001	97	153117	50.0	48.6	
97 Isopropylbenzene	105	11.442	11.443	-0.001	97	497653	50.0	52.2	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.754	-0.001	78	135997	50.0	53.8	
100 Bromobenzene	156	11.753	11.754	-0.001	95	126511	50.0	51.5	
102 trans-1,4-Dichloro-2-buten	53	11.795	11.790	0.005	86	44782	50.0	46.0	
101 1,2,3-Trichloropropane	110	11.813	11.809	0.005	87	45013	50.0	53.3	
103 N-Propylbenzene	120	11.856	11.863	-0.007	99	134232	50.0	46.7	
104 2-Chlorotoluene	126	11.947	11.948	-0.001	96	117723	50.0	48.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.009	-0.001	98	127016	50.0	48.6	
106 1,3,5-Trimethylbenzene	105	12.039	12.040	-0.001	98	402035	50.0	48.8	
107 4-Chlorotoluene	126	12.069	12.070	-0.001	97	124170	50.0	49.1	
108 tert-Butylbenzene	119	12.355	12.356	-0.001	94	339022	50.0	47.4	
110 1,2,4-Trimethylbenzene	105	12.416	12.417	-0.001	97	422821	50.0	50.6	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.459	-0.001	98	112960	50.0	45.2	
112 sec-Butylbenzene	105	12.580	12.581	-0.001	94	471046	50.0	48.5	
113 1,3-Dichlorobenzene	146	12.696	12.697	-0.001	97	230113	50.0	50.6	
114 4-Isopropyltoluene	119	12.732	12.733	-0.001	96	406882	50.0	48.6	
115 1,4-Dichlorobenzene	146	12.799	12.800	-0.001	94	235608	50.0	50.3	
116 2,4-Dichloro-1-(trifluorom	214	12.829	12.831	-0.002	96	107783	50.0	46.1	
118 2,5-Dichlorobenzotrifluori	214	12.872	12.873	-0.001	0	121461	50.0	46.6	
120 n-Butylbenzene	91	13.146	13.147	-0.001	98	353915	50.0	49.4	
121 1,2-Dichlorobenzene	146	13.158	13.159	-0.001	96	225488	50.0	52.8	
122 1,2-Dibromo-3-Chloropropan	75	13.943	13.956	-0.013	85	28350	50.0	47.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.095	14.090	0.005	0	476499	150.0	153.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.508	14.510	-0.002	0	335295	100.0	102.2	
126 1,2,4-Trichlorobenzene	180	14.770	14.771	-0.001	94	120991	50.0	49.8	
127 Hexachlorobutadiene	225	14.916	14.917	-0.001	94	52988	50.0	49.3	
128 Naphthalene	128	15.038	15.039	-0.001	98	407271	50.0	53.0	
129 1,2,3-Trichlorobenzene	180	15.269	15.270	-0.001	94	115227	50.0	51.1	
131 2,4,5-Trichlorotoluene	159	16.035	16.037	-0.002	0	66247	50.0	47.5	
130 2,3,6-Trichlorotoluene	159	16.133	16.134	-0.001	96	62669	50.0	49.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	99.3	
S 133 Xylenes, Total	106				0		100.0	104.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	102.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAVA2ND_00007	Amount Added: 2.00	Units: uL
VOAACR2ND_00008	Amount Added: 6.00	Units: uL
voaW2cleve2nd_00009	Amount Added: 2.00	Units: uL
voaWee2ndRest_00013	Amount Added: 2.00	Units: uL
voaWKet2ndRes_00019	Amount Added: 2.00	Units: uL
VOA8260SURR_00069	Amount Added: 2.00	Units: uL
VOA8260INT_00070	Amount Added: 2.00	Units: uL
VOA8260VOA2ND_00246	Amount Added: 2.00	Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D11.D

Injection Date: 08-Jun-2017 09:46:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICV

Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL

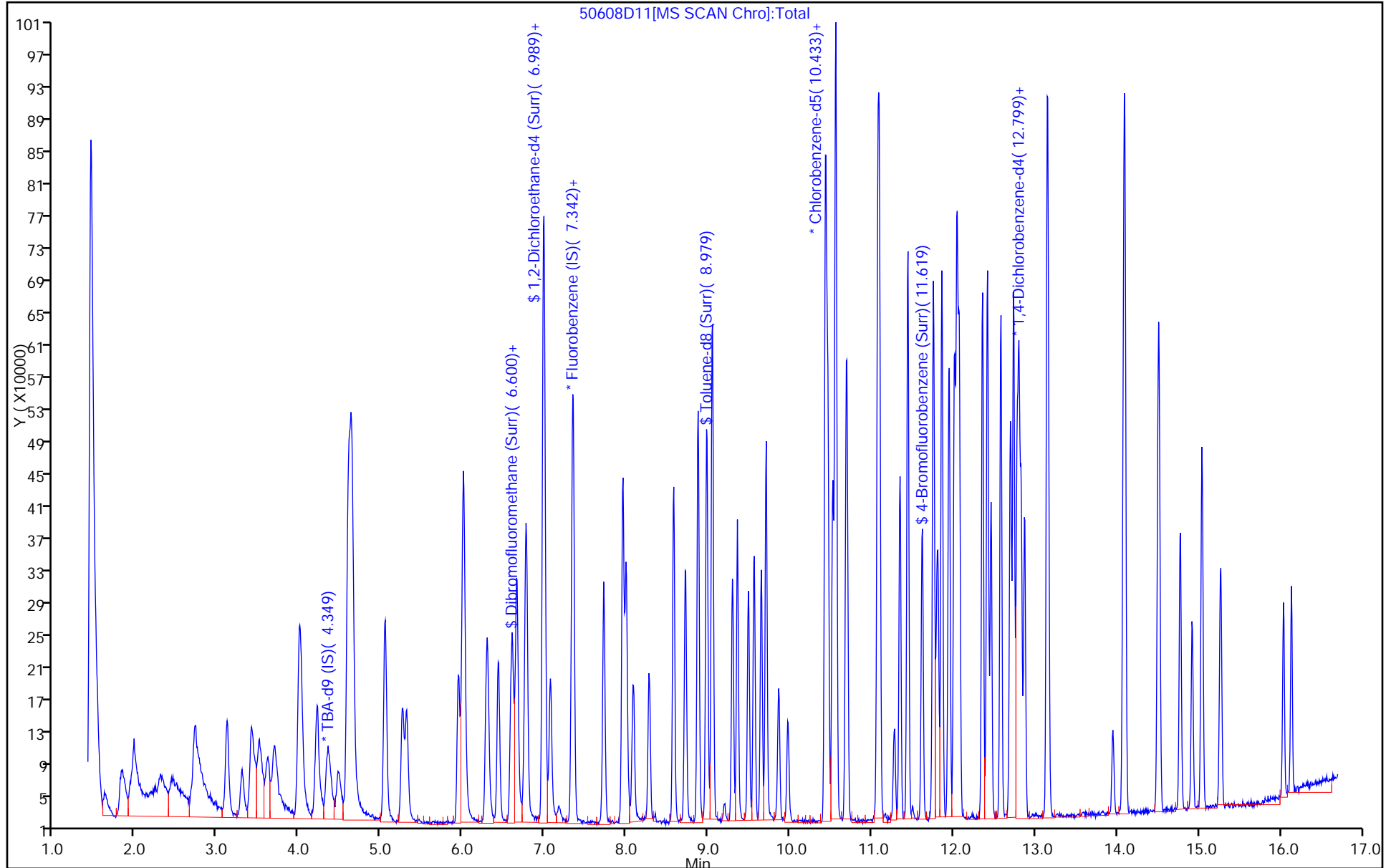
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

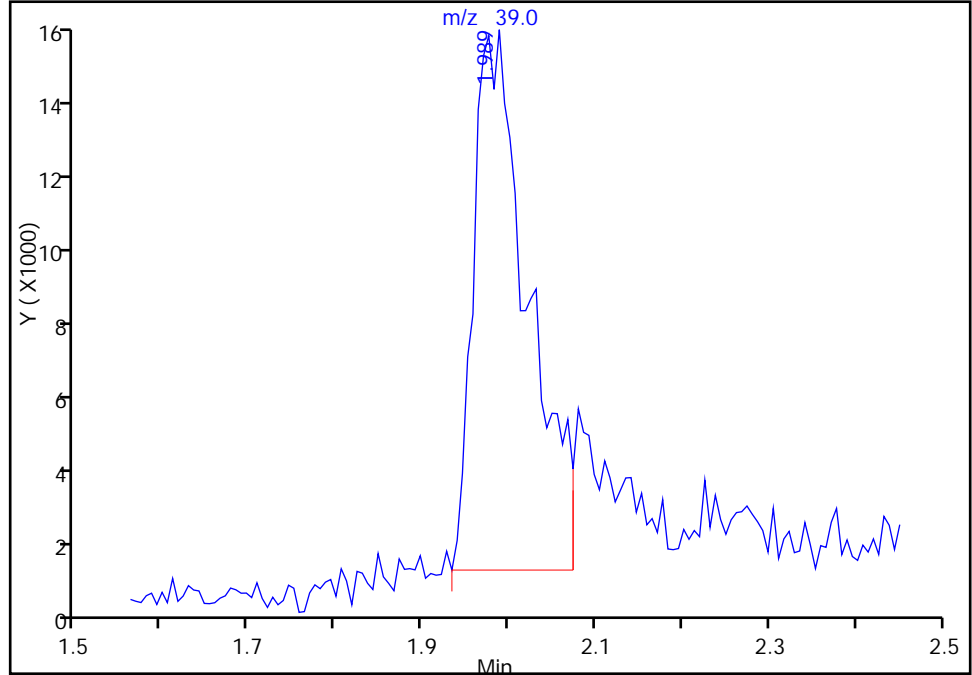
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D11.D
Injection Date: 08-Jun-2017 09:46:30 Instrument ID: CHHP5
Lims ID: ICV
Client ID:
Operator ID: 034635 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

14 Butadiene, CAS: 106-99-0

Signal: 1

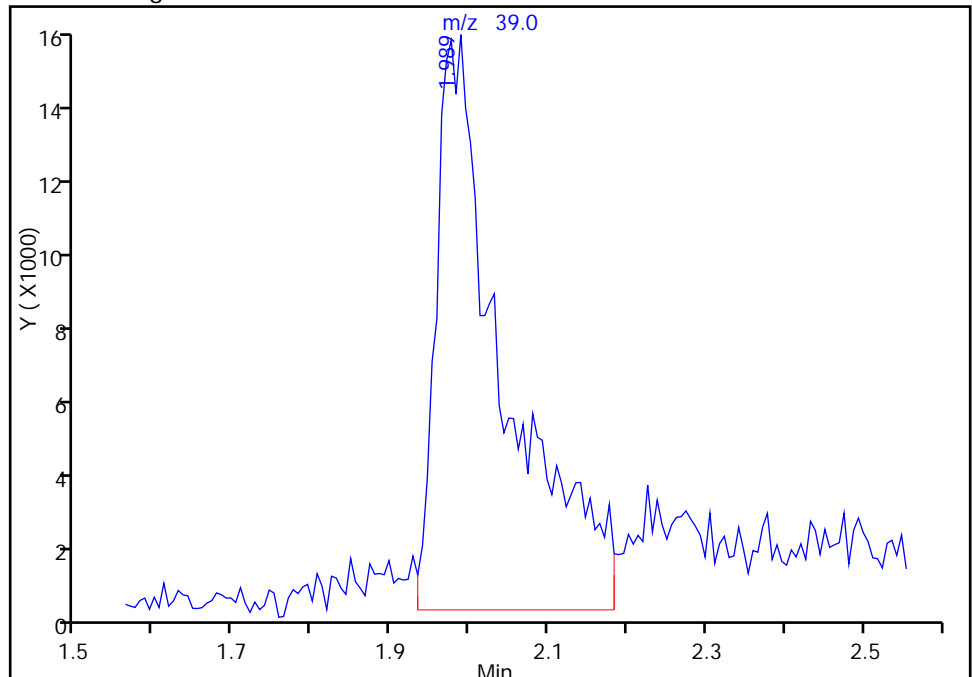
RT: 1.99
Area: 60887
Amount: 21.302853
Amount Units: ng

Processing Integration Results



RT: 1.99
Area: 88845
Amount: 39.214845
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 09-Jun-2017 03:32:29
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 50727D12.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.2809	0.1000	9.66	10.0	-3.4	30.0
Chloromethane	Ave	0.2922	0.3027	0.1000	10.4	10.0	3.6	30.0
Vinyl chloride	Ave	0.2965	0.3065	0.1000	10.3	10.0	3.3	30.0
1,3-Butadiene	Ave	0.2694	0.2831	0.0100	10.5	10.0	5.1	30.0
Bromomethane	Ave	0.1402	0.1608	0.0500	11.5	10.0	14.7	30.0
Chloroethane	Ave	0.1630	0.1820	0.0500	11.2	10.0	11.6	30.0
Trichlorofluoromethane	Ave	0.3643	0.3577	0.1000	9.82	10.0	-1.8	30.0
Ethyl ether	Ave	0.2370	0.2357	0.0100	9.95	10.0	-0.5	30.0
Acrolein	Ave	0.0597	0.0654	0.0100	32.9	30.0	9.6	30.0
1,1-Dichloroethene	Ave	0.2448	0.2409	0.1000	9.84	10.0	-1.6	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2607	0.1000	9.70	10.0	-3.0	30.0
Acetone	Ave	0.1308	0.1347	0.0500	20.6	20.0	3.0	30.0
Iodomethane	Ave	0.3845	0.3883	0.0100	10.1	10.0	1.0	30.0
Carbon disulfide	Ave	0.5372	0.6133	0.1000	11.4	10.0	14.2	30.0
Allyl chloride	Ave	0.1582	0.1602	0.0100	10.1	10.0	1.2	30.0
Methyl acetate	Ave	0.2589	0.2689	0.1000	20.8	20.0	3.9	30.0
Methylene Chloride	Lin2		0.3063	0.1000	10.1	10.0	1.1	30.0
tert-Butyl alcohol	Ave	1.183	1.166	0.0100	98.6	100	-1.4	30.0
Acrylonitrile	Ave	0.1259	0.1353	0.0100	107	100	7.4	30.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2857	0.1000	10.2	10.0	2.4	30.0
Methyl tert-butyl ether	Ave	0.7479	0.7713	0.1000	10.3	10.0	3.1	30.0
Hexane	Ave	0.3580	0.3468	0.0100	9.69	10.0	-3.1	30.0
1,1-Dichloroethane	Ave	0.4850	0.4829	0.2000	9.96	10.0	-0.4	30.0
Vinyl acetate	Ave	0.4932	0.4943	0.0100	10.0	10.0	0.2	30.0
2,2-Dichloropropane	Ave	0.0617	0.0634	0.0100	10.3	10.0	2.7	30.0
cis-1,2-Dichloroethene	Ave	0.3190	0.3224	0.1000	10.1	10.0	1.1	30.0
2-Butanone (MEK)	Ave	0.1861	0.1911	0.0500	20.5	20.0	2.7	30.0
Bromochloromethane	Ave	0.1418	0.1460	0.0100	10.3	10.0	2.9	30.0
Tetrahydrofuran	Ave	0.1084	0.1087	0.0100	20.1	20.0	0.3	30.0
Chloroform	Ave	0.4843	0.4755	0.2000	9.82	10.0	-1.8	30.0
1,1,1-Trichloroethane	Ave	0.3666	0.3550	0.1000	9.69	10.0	-3.1	30.0
Cyclohexane	Ave	0.4524	0.4637	0.1000	10.3	10.0	2.5	30.0
Carbon tetrachloride	Ave	0.3051	0.2952	0.1000	9.68	10.0	-3.2	30.0
1,1-Dichloropropene	Ave	0.3961	0.3983	0.0100	10.1	10.0	0.6	30.0
Isobutyl alcohol	Ave	0.0099	0.0110	0.0100	276	250	10.5	30.0
Benzene	Ave	1.216	1.247	0.5000	10.3	10.0	2.5	30.0
1,2-Dichloroethane	Ave	0.3544	0.3374	0.1000	9.52	10.0	-4.8	30.0
n-Heptane	Ave	0.2863	0.2915	0.0100	10.2	10.0	1.8	30.0
Trichloroethene	Ave	0.3059	0.3115	0.2000	10.2	10.0	1.8	30.0
Methylcyclohexane	Ave	0.4626	0.4634	0.1000	10.0	10.0	0.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 50727D12.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2786	0.1000	9.84	10.0	-1.6	30.0
1,4-Dioxane	Ave	0.0029	0.0039*	0.0100	273	200	36.5*	30.0
Dibromomethane	Ave	0.1659	0.1706	0.0100	10.3	10.0	2.8	30.0
Bromodichloromethane	Ave	0.3256	0.3222	0.2000	9.89	10.0	-1.1	30.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.2060	0.0100	20.2	20.0	1.1	30.0
cis-1,3-Dichloropropene	Ave	0.3955	0.4032	0.2000	10.2	10.0	2.0	30.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.431	0.1000	22.3	20.0	11.6	30.0
Toluene	Ave	4.986	5.301	0.4000	10.6	10.0	6.3	30.0
trans-1,3-Dichloropropene	Ave	1.357	1.447	0.1000	10.7	10.0	6.7	30.0
Ethyl methacrylate	Ave	1.636	1.767	0.0100	10.8	10.0	8.0	30.0
1,1,2-Trichloroethane	Ave	1.039	1.083	0.1000	10.4	10.0	4.3	30.0
Tetrachloroethene	Ave	0.9508	0.9658	0.2000	10.2	10.0	1.6	30.0
1,3-Dichloropropane	Ave	1.920	1.986	0.0100	10.3	10.0	3.4	30.0
2-Hexanone	Ave	0.9836	1.087	0.1000	22.1	20.0	10.5	30.0
Dibromochloromethane	Ave	0.8779	0.9020	0.1000	10.3	10.0	2.7	30.0
1,2-Dibromoethane (EDB)	Ave	1.065	1.107	0.1000	10.4	10.0	4.0	30.0
3-Chlorobenzotrifluoride	Ave	1.718	1.530	0.0100	8.91	10.0	-10.9	30.0
Chlorobenzene	Ave	3.246	3.396	0.5000	10.5	10.0	4.6	30.0
4-Chlorobenzotrifluoride	Ave	1.586	1.438	0.0100	9.07	10.0	-9.3	30.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.042	0.0100	10.1	10.0	1.0	30.0
Ethylbenzene	Ave	1.812	1.923	0.1000	10.6	10.0	6.1	30.0
m-Xylene & p-Xylene	Ave	2.214	2.327	0.1000	10.5	10.0	5.1	30.0
o-Xylene	Ave	2.110	2.264	0.3000	10.7	10.0	7.3	30.0
Styrene	Ave	3.571	3.839	0.3000	10.7	10.0	7.5	30.0
Bromoform	Ave	0.5456	0.5467	0.1000	10.0	10.0	0.2	30.0
2-Chlorobenzotrifluoride	Ave	1.644	1.561	0.0100	9.49	10.0	-5.1	30.0
Isopropylbenzene	Ave	5.150	5.633	0.1000	10.9	10.0	9.4	30.0
Bromobenzene	Ave	0.9704	1.028	0.0100	10.6	10.0	5.9	30.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.643	0.3000	10.7	10.0	6.9	30.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3062	0.0100	10.5	10.0	4.6	30.0
1,2,3-Trichloropropane	Ave	0.4005	0.4174	0.0100	10.4	10.0	4.2	30.0
N-Propylbenzene	Ave	1.109	1.140	0.0100	10.3	10.0	2.8	30.0
2-Chlorotoluene	Ave	0.9585	0.9846	0.0100	10.3	10.0	2.7	30.0
3-Chlorotoluene	Ave	1.043	1.029	0.0100	9.87	10.0	-1.3	30.0
1,3,5-Trimethylbenzene	Ave	3.173	3.384	0.0100	10.7	10.0	6.7	30.0
4-Chlorotoluene	Ave	1.035	1.051	0.0100	10.2	10.0	1.6	30.0
tert-Butylbenzene	Ave	2.653	2.825	0.0100	10.6	10.0	6.5	30.0
1,2,4-Trimethylbenzene	Ave	3.226	3.440	0.0100	10.7	10.0	6.6	30.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7645	0.0100	9.46	10.0	-5.4	30.0
sec-Butylbenzene	Ave	3.701	3.952	0.0100	10.7	10.0	6.8	30.0
1,3-Dichlorobenzene	Ave	1.734	1.823	0.6000	10.5	10.0	5.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: ICV 180-218218/12 Calibration Date: 07/27/2017 05:03
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 50727D12.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	3.344	0.0100	10.8	10.0	8.5	30.0
1,4-Dichlorobenzene	Ave	1.780	1.855	0.5000	10.4	10.0	4.2	30.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.7245	0.0100	9.63	10.0	-3.7	30.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.7622	0.0100	9.38	10.0	-6.2	30.0
n-Butylbenzene	Ave	2.514	2.754	0.0100	11.0	10.0	9.5	30.0
1,2-Dichlorobenzene	Ave	1.653	1.681	0.4000	10.2	10.0	1.7	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1926	0.0500	10.5	10.0	5.0	30.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.153	0.0100	33.0	30.0	10.0	30.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.253	0.0100	23.1	20.0	15.5	30.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.8934	0.2000	11.8	10.0	18.1	30.0
Hexachlorobutadiene	Ave	0.2767	0.3458	0.0100	12.5	10.0	25.0	30.0
Naphthalene	Ave	2.576	3.238	0.0100	12.6	10.0	25.7	30.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.8533	0.0100	12.4	10.0	23.5	30.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.4854	0.0100	14.8	10.0	47.8*	30.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.4727	0.0100	15.5	10.0	54.7*	30.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2305		9.58	10.0	-4.2	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2720		9.27	10.0	-7.3	30.0
Toluene-d8 (Surr)	Ave	3.979	4.006		10.1	10.0	0.7	30.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.483		10.3	10.0	3.2	30.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D12.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 27-Jul-2017 05:03:30 ALS Bottle#: 12 Worklist Smp#: 12
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-012
 Misc. Info.: ICV
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist:

Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:05:08 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf

Date: 27-Jul-2017 05:29:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.310	4.323	-0.013	0	309556	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.297	7.298	-0.001	98	616746	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.406	10.406	0.000	85	146808	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.779	12.773	0.006	95	194967	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.573	6.574	-0.001	92	142161	50.0	47.9	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.944	6.945	-0.001	0	167744	50.0	46.3	
\$ 7 Toluene-d8 (Surr)	98	8.946	8.946	0.000	92	588062	50.0	50.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.598	11.599	-0.001	86	217745	50.0	51.6	
11 Dichlorodifluoromethane	85	1.658	1.646	0.012	98	173225	50.0	48.3	
12 Chloromethane	50	1.798	1.804	-0.006	99	186658	50.0	51.8	
13 Vinyl chloride	62	1.950	1.944	0.006	97	189015	50.0	51.7	
14 Butadiene	39	1.962	1.969	-0.006	95	174612	50.0	52.6	
15 Bromomethane	94	2.285	2.254	0.031	90	99140	50.0	57.3	
16 Chloroethane	64	2.437	2.419	0.018	98	112216	50.0	55.8	
17 Dichlorofluoromethane	67	2.710	2.699	0.011	98	265813	50.0	52.3	
18 Trichlorofluoromethane	101	2.741	2.741	0.000	98	220607	50.0	49.1	
20 Ethyl ether	59	3.075	3.076	-0.001	89	145366	50.0	49.7	
21 Acrolein	56	3.264	3.252	0.012	96	121056	150.0	164.3	
22 1,1-Dichloroethene	96	3.380	3.368	0.012	97	148564	50.0	49.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.459	3.441	0.018	93	160786	50.0	48.5	
24 Acetone	43	3.483	3.477	0.006	100	166171	100.0	103.0	
25 Iodomethane	142	3.574	3.562	0.012	96	239509	50.0	50.5	
26 Carbon disulfide	76	3.653	3.648	0.005	98	378238	50.0	57.1	
28 3-Chloro-1-propene	76	3.939	3.946	-0.007	92	98775	50.0	50.6	
30 Methyl acetate	43	3.970	3.976	-0.006	96	331711	100.0	103.9	
31 Methylene Chloride	84	4.170	4.165	0.005	87	188888	50.0	50.5	
32 2-Methyl-2-propanol	59	4.432	4.451	-0.019	94	180509	500.0	493.1	
33 Acrylonitrile	53	4.554	4.554	0.000	99	834262	500.0	537.2	
34 trans-1,2-Dichloroethene	96	4.578	4.584	-0.006	97	176224	50.0	51.2	
35 Methyl tert-butyl ether	73	4.602	4.603	-0.001	95	475667	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.004	4.998	0.006	94	213877	50.0	48.4	
37 1,1-Dichloroethane	63	5.217	5.217	0.000	96	297817	50.0	49.8	
38 Vinyl acetate	43	5.265	5.272	-0.007	97	304875	50.0	50.1	
44 2,2-Dichloropropane	97	5.965	5.959	0.006	72	39126	50.0	51.4	
45 cis-1,2-Dichloroethene	96	5.965	5.965	0.000	79	198830	50.0	50.5	
46 2-Butanone (MEK)	43	5.977	5.978	-0.001	98	235673	100.0	102.7	
49 Chlorobromomethane	128	6.251	6.245	0.006	96	90022	50.0	51.5	
51 Tetrahydrofuran	42	6.263	6.263	0.000	87	134047	100.0	100.3	
52 Chloroform	83	6.391	6.391	0.000	92	293244	50.0	49.1	
53 1,1,1-Trichloroethane	97	6.549	6.549	0.000	98	218969	50.0	48.4	
54 Cyclohexane	56	6.616	6.622	-0.006	90	285972	50.0	51.3	
56 Carbon tetrachloride	117	6.725	6.726	-0.001	78	182071	50.0	48.4	
55 1,1-Dichloropropene	75	6.738	6.738	0.000	97	245628	50.0	50.3	
57 Isobutyl alcohol	41	6.944	6.945	-0.001	54	169537	1250.0	1381.5	
58 Benzene	78	6.951	6.951	0.000	97	768845	50.0	51.3	
59 1,2-Dichloroethane	62	7.030	7.030	0.000	97	208088	50.0	47.6	
62 n-Heptane	43	7.316	7.316	0.000	87	179790	50.0	50.9	
64 Trichloroethene	130	7.687	7.687	0.000	98	192140	50.0	50.9	
66 Methylcyclohexane	83	7.918	7.918	0.000	87	285824	50.0	50.1	
67 1,2-Dichloropropane	63	7.954	7.961	-0.007	94	171825	50.0	49.2	
68 Dibromomethane	93	8.046	8.046	0.000	97	105219	50.0	51.4	
70 1,4-Dioxane	88	8.046	8.052	-0.006	43	48464	1000.0	1364.9	
71 Dichlorobromomethane	83	8.240	8.241	-0.001	100	198702	50.0	49.5	
73 2-Chloroethyl vinyl ether	63	8.544	8.545	-0.001	92	254051	100.0	101.1	
74 cis-1,3-Dichloropropene	75	8.684	8.685	-0.001	97	248692	50.0	51.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.843	8.843	0.000	95	420246	100.0	111.6	
76 Toluene	91	9.019	9.019	0.000	99	778258	50.0	53.2	
77 trans-1,3-Dichloropropene	75	9.268	9.269	-0.001	94	212503	50.0	53.4	
78 Ethyl methacrylate	69	9.329	9.330	-0.001	87	259430	50.0	54.0	
79 1,1,2-Trichloroethane	97	9.463	9.457	0.006	90	158965	50.0	52.1	
80 Tetrachloroethene	164	9.530	9.530	0.000	98	141786	50.0	50.8	
81 1,3-Dichloropropane	76	9.621	9.615	0.006	88	291510	50.0	51.7	
82 2-Hexanone	43	9.676	9.682	-0.006	95	319182	100.0	110.5	
84 Chlorodibromomethane	129	9.834	9.834	0.000	90	132419	50.0	51.4	
85 Ethylene Dibromide	107	9.944	9.944	0.000	97	162562	50.0	52.0	
86 3-Chlorobenzotrifluoride	180	10.412	10.412	0.000	93	224643	50.0	44.5	
87 Chlorobenzene	112	10.436	10.437	-0.001	95	498591	50.0	52.3	
88 4-Chlorobenzotrifluoride	180	10.497	10.498	-0.001	95	211115	50.0	45.3	
89 1,1,1,2-Tetrachloroethane	131	10.528	10.528	0.000	93	153003	50.0	50.5	
90 Ethylbenzene	106	10.534	10.534	0.000	98	282349	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.668	10.668	0.000	0	341607	50.0	52.5	
92 o-Xylene	106	11.051	11.051	0.000	95	332342	50.0	53.7	
93 Styrene	104	11.075	11.069	0.006	94	563532	50.0	53.7	
94 Bromoform	173	11.258	11.252	0.006	96	80252	50.0	50.1	
96 2-Chlorobenzotrifluoride	180	11.325	11.325	0.000	97	229108	50.0	47.5	
97 Isopropylbenzene	105	11.422	11.422	0.000	96	826910	50.0	54.7	
100 Bromobenzene	156	11.738	11.739	-0.001	94	200399	50.0	53.0	
99 1,1,2,2-Tetrachloroethane	83	11.744	11.745	-0.001	93	241229	50.0	53.4	
102 trans-1,4-Dichloro-2-buten	53	11.781	11.775	0.006	83	59701	50.0	52.3	
101 1,2,3-Trichloropropane	110	11.799	11.793	0.006	85	81373	50.0	52.1	
103 N-Propylbenzene	120	11.842	11.842	0.000	98	222347	50.0	51.4	
104 2-Chlorotoluene	126	11.933	11.927	0.006	97	191963	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.000	11.994	0.006	96	200650	50.0	49.4	
106 1,3,5-Trimethylbenzene	105	12.030	12.031	-0.001	94	659799	50.0	53.3	
107 4-Chlorotoluene	126	12.055	12.055	0.000	96	204976	50.0	50.8	
108 tert-Butylbenzene	119	12.347	12.347	0.000	93	550715	50.0	53.2	
110 1,2,4-Trimethylbenzene	105	12.407	12.408	-0.001	97	670609	50.0	53.3	
111 1,2-dichloro-4-(trifluorom	214	12.456	12.456	0.000	98	149049	50.0	47.3	
112 sec-Butylbenzene	105	12.578	12.572	0.006	94	770511	50.0	53.4	
113 1,3-Dichlorobenzene	146	12.693	12.688	0.005	97	355343	50.0	52.6	
114 4-Isopropyltoluene	119	12.736	12.730	0.006	97	651895	50.0	54.2	
115 1,4-Dichlorobenzene	146	12.803	12.797	0.006	96	361638	50.0	52.1	
116 2,4-Dichloro-1-(trifluorom	214	12.833	12.828	0.005	96	141250	50.0	48.1	
118 2,5-Dichlorobenzotrifluori	214	12.876	12.870	0.006	0	148594	50.0	46.9	
120 n-Butylbenzene	91	13.156	13.150	0.006	97	536973	50.0	54.8	
121 1,2-Dichlorobenzene	146	13.162	13.156	0.006	96	327689	50.0	50.8	
122 1,2-Dibromo-3-Chloropropan	75	13.983	13.971	0.012	81	37554	50.0	52.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.129	14.117	0.012	0	674227	150.0	164.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.567	14.555	0.012	0	488395	100.0	115.5	
126 1,2,4-Trichlorobenzene	180	14.847	14.829	0.018	95	174187	50.0	59.1	
127 Hexachlorobutadiene	225	15.011	14.993	0.018	98	67422	50.0	62.5	
128 Naphthalene	128	15.127	15.103	0.024	97	631232	50.0	62.8	
129 1,2,3-Trichlorobenzene	180	15.370	15.346	0.024	95	166357	50.0	61.8	
131 2,4,5-Trichlorotoluene	159	16.240	16.198	0.042	0	94632	50.0	73.9	
130 2,3,6-Trichlorotoluene	159	16.343	16.307	0.036	96	92162	50.0	77.4	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	106.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	101.7	
S 135 1,3-Dichloropropene, Total	1				0		100.0	104.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWKet2ndRes_00021	Amount Added: 2.00	Units: uL	
voaWAcro2ndRe_00012	Amount Added: 6.00	Units: uL	
voaWva2ndRete_00003	Amount Added: 2.00	Units: uL	
voaWee2ndRest_00014	Amount Added: 2.00	Units: uL	
voaW2cleve2nd_00013	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00255	Amount Added: 2.00	Units: uL	
VOA8260INT_00072	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00071	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D12.D

Injection Date: 27-Jul-2017 05:03:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: ICV

Worklist Smp#: 12

Client ID:

Purge Vol: 5.000 mL

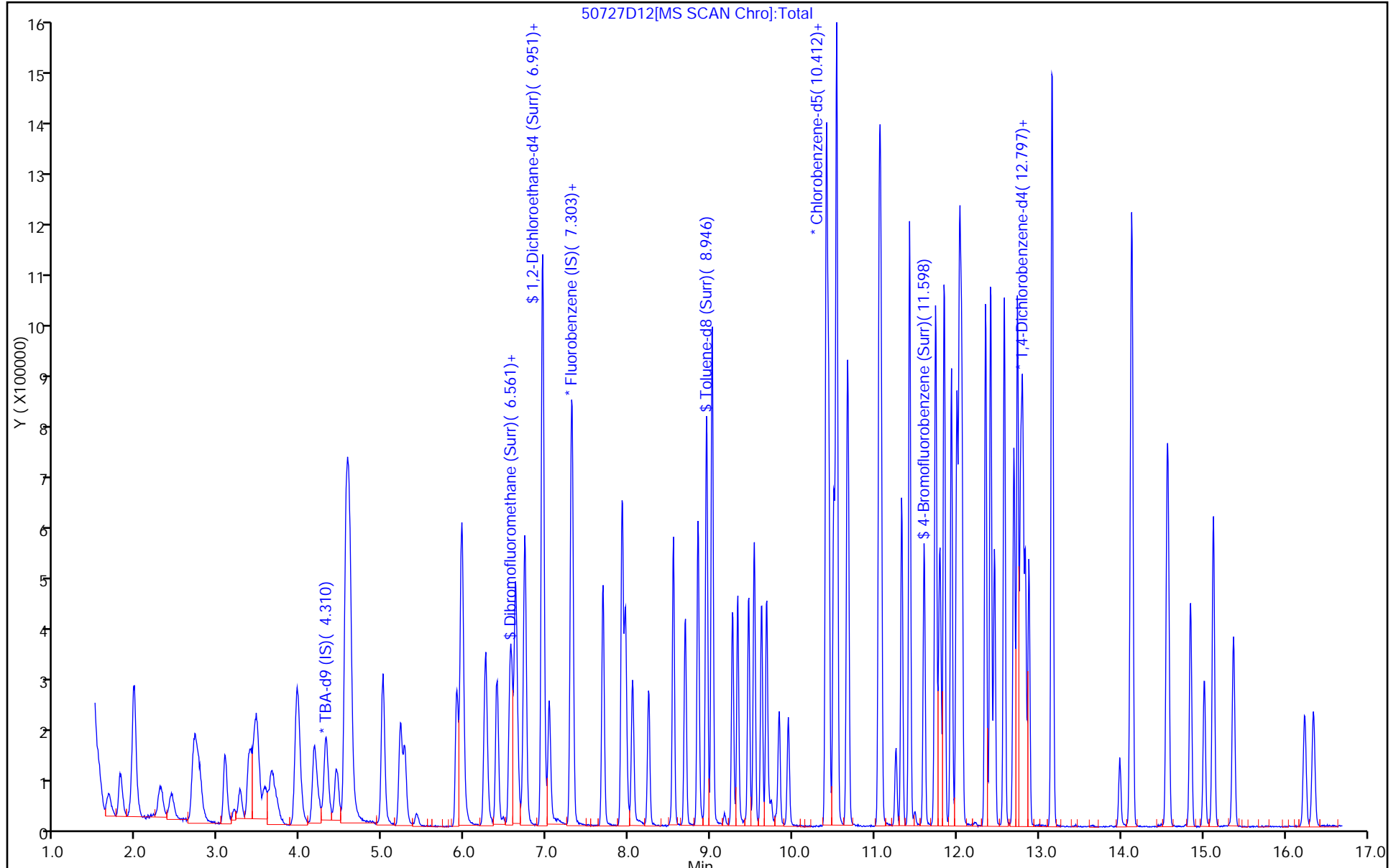
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228704/2 Calibration Date: 11/12/2017 17:04
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51112D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.3149	0.1000	10.8	10.0	8.3	20.0
Chloromethane	Ave	0.2922	0.3373	0.1000	11.5	10.0	15.4	20.0
Vinyl chloride	Ave	0.2965	0.2902	0.1000	9.79	10.0	-2.1	20.0
1,3-Butadiene	Ave	0.2694	0.3367	0.0100	12.5	10.0	25.0*	20.0
Bromomethane	Ave	0.1402	0.1481	0.0500	10.6	10.0	5.6	20.0
Chloroethane	Ave	0.1630	0.1649	0.0500	10.1	10.0	1.2	20.0
Trichlorofluoromethane	Ave	0.3643	0.3296	0.1000	9.05	10.0	-9.5	20.0
Ethyl ether	Ave	0.2370	0.2856	0.0100	12.0	10.0	20.5*	20.0
Acrolein	Ave	0.0597	0.0457	0.0100	23.0	30.0	-23.5*	20.0
1,1-Dichloroethene	Ave	0.2448	0.2292	0.1000	9.36	10.0	-6.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2479	0.1000	9.23	10.0	-7.7	20.0
Acetone	Ave	0.1308	0.0960	0.0500	14.7	20.0	-26.6*	20.0
Iodomethane	Ave	0.3845	0.3498	0.0100	9.10	10.0	-9.0	20.0
Carbon disulfide	Ave	0.5372	0.5000	0.1000	9.31	10.0	-6.9	20.0
Allyl chloride	Ave	0.1582	0.1425	0.0100	9.01	10.0	-9.9	20.0
Methyl acetate	Ave	0.2589	0.3156	0.1000	24.4	20.0	21.9*	20.0
Methylene Chloride	Lin2		0.2806	0.1000	9.21	10.0	-7.9	20.0
tert-Butyl alcohol	Ave	1.183	1.267	0.0100	107	100	7.1	20.0
Acrylonitrile	Ave	0.1259	0.1493	0.0100	119	100	18.5	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2525	0.1000	9.05	10.0	-9.5	20.0
Methyl tert-butyl ether	Ave	0.7479	0.7039	0.1000	9.41	10.0	-5.9	20.0
Hexane	Ave	0.3580	0.3425	0.0100	9.57	10.0	-4.3	20.0
1,1-Dichloroethane	Ave	0.4850	0.4465	0.2000	9.21	10.0	-7.9	20.0
Vinyl acetate	Ave	0.4932	0.5781	0.0100	11.7	10.0	17.2	20.0
2,2-Dichloropropane	Ave	0.0617	0.0655	0.0100	10.6	10.0	6.1	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2756	0.1000	8.64	10.0	-13.6	20.0
2-Butanone (MEK)	Ave	0.1861	0.1438	0.0500	15.5	20.0	-22.7*	20.0
Bromochloromethane	Ave	0.1418	0.1306	0.0100	9.21	10.0	-7.9	20.0
Tetrahydrofuran	Ave	0.1084	0.1079	0.0100	19.9	20.0	-0.5	20.0
Chloroform	Ave	0.4843	0.4010	0.2000	8.28	10.0	-17.2	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3138	0.1000	8.56	10.0	-14.4	20.0
Cyclohexane	Ave	0.4524	0.4238	0.1000	9.37	10.0	-6.3	20.0
Carbon tetrachloride	Ave	0.3051	0.2637	0.1000	8.64	10.0	-13.6	20.0
1,1-Dichloropropene	Ave	0.3961	0.3128	0.0100	7.90	10.0	-21.0*	20.0
Isobutyl alcohol	Ave	0.0099	0.0102	0.0100	255	250	2.0	20.0
Benzene	Ave	1.216	1.061	0.5000	8.73	10.0	-12.7	20.0
1,2-Dichloroethane	Ave	0.3544	0.3419	0.1000	9.65	10.0	-3.5	20.0
n-Heptane	Ave	0.2863	0.2854	0.0100	9.97	10.0	-0.3	20.0
Trichloroethene	Ave	0.3059	0.2384	0.2000	7.79	10.0	-22.1*	20.0
Methylcyclohexane	Ave	0.4626	0.3399	0.1000	7.35	10.0	-26.5*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228704/2 Calibration Date: 11/12/2017 17:04
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51112D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2548	0.1000	9.00	10.0	-10.0	20.0
1,4-Dioxane	Ave	0.0029	0.0025*	0.0100	174	200	-12.9	20.0
Dibromomethane	Ave	0.1659	0.1468	0.0100	8.85	10.0	-11.5	20.0
Bromodichloromethane	Ave	0.3256	0.2750	0.2000	8.45	10.0	-15.5	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1648	0.0100	16.2	20.0	-19.1	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3299	0.2000	8.34	10.0	-16.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.137	0.1000	17.7	20.0	-11.4	20.0
Toluene	Ave	4.986	4.762	0.4000	9.55	10.0	-4.5	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.366	0.1000	10.1	10.0	0.7	20.0
Ethyl methacrylate	Ave	1.636	1.294	0.0100	7.91	10.0	-20.9*	20.0
1,1,2-Trichloroethane	Ave	1.039	1.070	0.1000	10.3	10.0	3.0	20.0
Tetrachloroethene	Ave	0.9508	0.7971	0.2000	8.38	10.0	-16.2	20.0
1,3-Dichloropropane	Ave	1.920	1.772	0.0100	9.23	10.0	-7.7	20.0
2-Hexanone	Ave	0.9836	0.7918	0.1000	16.1	20.0	-19.5	20.0
Dibromochloromethane	Ave	0.8779	0.8261	0.1000	9.41	10.0	-5.9	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9800	0.1000	9.20	10.0	-8.0	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.698	0.0100	9.89	10.0	-1.1	20.0
Chlorobenzene	Ave	3.246	2.924	0.5000	9.01	10.0	-9.9	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.669	0.0100	10.5	10.0	5.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	0.9871	0.0100	9.56	10.0	-4.4	20.0
Ethylbenzene	Ave	1.812	1.543	0.1000	8.52	10.0	-14.8	20.0
m-Xylene & p-Xylene	Ave	2.214	1.905	0.1000	8.60	10.0	-14.0	20.0
o-Xylene	Ave	2.110	1.797	0.3000	8.52	10.0	-14.8	20.0
Styrene	Ave	3.571	3.057	0.3000	8.56	10.0	-14.4	20.0
Bromoform	Ave	0.5456	0.4745	0.1000	8.70	10.0	-13.0	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.637	0.0100	9.95	10.0	-0.5	20.0
Isopropylbenzene	Ave	5.150	4.151	0.1000	8.06	10.0	-19.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.428	0.3000	9.29	10.0	-7.1	20.0
Bromobenzene	Ave	0.9704	0.8041	0.0100	8.29	10.0	-17.1	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3455	0.0100	11.8	10.0	18.1	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3689	0.0100	9.21	10.0	-7.9	20.0
N-Propylbenzene	Ave	1.109	0.8779	0.0100	7.92	10.0	-20.8*	20.0
2-Chlorotoluene	Ave	0.9585	0.7814	0.0100	8.15	10.0	-18.5	20.0
3-Chlorotoluene	Ave	1.043	1.063	0.0100	10.2	10.0	2.0	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.639	0.0100	8.32	10.0	-16.8	20.0
4-Chlorotoluene	Ave	1.035	0.8961	0.0100	8.66	10.0	-13.4	20.0
tert-Butylbenzene	Ave	2.653	1.928	0.0100	7.27	10.0	-27.3*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.601	0.0100	8.07	10.0	-19.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.6711	0.0100	8.30	10.0	-17.0	20.0
sec-Butylbenzene	Ave	3.701	2.847	0.0100	7.69	10.0	-23.1*	20.0
1,3-Dichlorobenzene	Ave	1.734	1.517	0.6000	8.75	10.0	-12.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228704/2 Calibration Date: 11/12/2017 17:04
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51112D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	2.352	0.0100	7.63	10.0	-23.7*	20.0
1,4-Dichlorobenzene	Ave	1.780	1.568	0.5000	8.81	10.0	-11.9	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6458	0.0100	8.58	10.0	-14.2	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.6717	0.0100	8.26	10.0	-17.4	20.0
n-Butylbenzene	Ave	2.514	1.810	0.0100	7.20	10.0	-28.0*	20.0
1,2-Dichlorobenzene	Ave	1.653	1.482	0.4000	8.97	10.0	-10.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1463	0.0500	7.97	10.0	-20.3*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	0.9499	0.0100	27.2	30.0	-9.4	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	0.9394	0.0100	17.3	20.0	-13.3	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.4916	0.2000	6.50	10.0	-35.0*	20.0
Hexachlorobutadiene	Ave	0.2767	0.1801	0.0100	6.51	10.0	-34.9*	20.0
Naphthalene	Ave	2.576	1.802	0.0100	7.00	10.0	-30.0*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4568	0.0100	6.61	10.0	-33.9*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.1600	0.0100	4.87	10.0	-51.3*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.1702	0.0100	5.57	10.0	-44.3*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2097		8.72	10.0	-12.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2631		8.97	10.0	-10.3	20.0
Toluene-d8 (Surr)	Ave	3.979	3.969		9.97	10.0	-0.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.271		8.84	10.0	-11.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D02.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 12-Nov-2017 17:04:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-002
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub29
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:07 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf Date: 12-Nov-2017 18:01:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.385	4.385	0.000	0	217275	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.341	7.341	0.000	97	584387	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.430	10.430	0.000	86	124952	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.772	12.772	0.000	94	171161	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.623	6.623	0.000	92	122528	50.0	43.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.988	6.988	0.000	0	153727	50.0	44.8	
\$ 7 Toluene-d8 (Surr)	98	8.983	8.983	0.000	93	495987	50.0	49.9	
\$ 8 4-Bromofluorobenzene (Surr	95	11.616	11.616	0.000	85	158834	50.0	44.2	
11 Dichlorodifluoromethane	85	1.685	1.685	0.000	99	183992	50.0	54.1	
12 Chloromethane	50	1.886	1.886	0.000	99	197082	50.0	57.7	
14 Butadiene	39	2.020	2.020	0.000	94	196754	50.0	62.5	
13 Vinyl chloride	62	2.014	2.014	0.000	66	169577	50.0	48.9	
15 Bromomethane	94	2.366	2.366	0.000	87	86518	50.0	52.8	
16 Chloroethane	64	2.458	2.458	0.000	98	96344	50.0	50.6	
17 Dichlorofluoromethane	67	2.768	2.768	0.000	97	218261	50.0	45.3	
18 Trichlorofluoromethane	101	2.786	2.786	0.000	94	192600	50.0	45.2	M
20 Ethyl ether	59	3.121	3.121	0.000	95	166876	50.0	60.2	
21 Acrolein	56	3.315	3.315	0.000	97	80137	150.0	114.8	
22 1,1-Dichloroethene	96	3.425	3.425	0.000	97	133920	50.0	46.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.510	3.510	0.000	94	144885	50.0	46.1	
24 Acetone	43	3.540	3.540	0.000	100	112242	100.0	73.4	
25 Iodomethane	142	3.613	3.613	0.000	97	204408	50.0	45.5	
26 Carbon disulfide	76	3.704	3.704	0.000	100	292215	50.0	46.5	
28 3-Chloro-1-propene	76	4.002	4.002	0.000	91	83281	50.0	45.0	
30 Methyl acetate	43	4.039	4.039	0.000	99	368826	100.0	121.9	
31 Methylene Chloride	84	4.227	4.227	0.000	98	163983	50.0	46.0	
32 2-Methyl-2-propanol	59	4.513	4.513	0.000	93	137646	500.0	535.7	
33 Acrylonitrile	53	4.617	4.617	0.000	100	872171	500.0	592.7	
34 trans-1,2-Dichloroethene	96	4.647	4.647	0.000	99	147559	50.0	45.3	
35 Methyl tert-butyl ether	73	4.659	4.659	0.000	97	411375	50.0	47.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.061	5.061	0.000	95	200141	50.0	47.8	
37 1,1-Dichloroethane	63	5.267	5.267	0.000	96	260903	50.0	46.0	
38 Vinyl acetate	43	5.322	5.322	0.000	97	337808	50.0	58.6	
45 cis-1,2-Dichloroethene	96	6.009	6.009	0.000	82	161034	50.0	43.2	
44 2,2-Dichloropropane	97	6.009	6.009	0.000	63	38295	50.0	53.1	
46 2-Butanone (MEK)	43	6.027	6.027	0.000	93	168089	100.0	77.3	
49 Chlorobromomethane	128	6.295	6.295	0.000	97	76307	50.0	46.0	
51 Tetrahydrofuran	42	6.307	6.307	0.000	91	126049	100.0	99.5	
52 Chloroform	83	6.441	6.441	0.000	94	234365	50.0	41.4	
53 1,1,1-Trichloroethane	97	6.593	6.593	0.000	98	183382	50.0	42.8	
54 Cyclohexane	56	6.666	6.666	0.000	96	247632	50.0	46.8	
56 Carbon tetrachloride	117	6.769	6.769	0.000	96	154106	50.0	43.2	
55 1,1-Dichloropropene	75	6.788	6.788	0.000	93	182791	50.0	39.5	
57 Isobutyl alcohol	41	6.988	6.988	0.000	91	148217	1250.0	1274.6	
58 Benzene	78	7.000	7.000	0.000	97	620272	50.0	43.7	
59 1,2-Dichloroethane	62	7.073	7.073	0.000	95	199814	50.0	48.2	
62 n-Heptane	43	7.353	7.353	0.000	92	166803	50.0	49.9	
64 Trichloroethene	130	7.724	7.724	0.000	97	139340	50.0	39.0	
66 Methylcyclohexane	83	7.961	7.961	0.000	93	198625	50.0	36.7	
67 1,2-Dichloropropane	63	7.998	7.998	0.000	94	148886	50.0	45.0	
70 1,4-Dioxane	88	8.077	8.077	0.000	44	29302	1000.0	870.9	M
68 Dibromomethane	93	8.083	8.083	0.000	97	85792	50.0	44.3	
71 Dichlorobromomethane	83	8.278	8.278	0.000	99	160715	50.0	42.2	
73 2-Chloroethyl vinyl ether	63	8.582	8.582	0.000	92	192552	100.0	80.9	
74 cis-1,3-Dichloropropene	75	8.721	8.721	0.000	92	192778	50.0	41.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.880	8.880	0.000	99	284078	100.0	88.6	
76 Toluene	91	9.050	9.050	0.000	98	594985	50.0	47.8	
77 trans-1,3-Dichloropropene	75	9.299	9.299	0.000	97	170733	50.0	50.4	
78 Ethyl methacrylate	69	9.354	9.354	0.000	92	161697	50.0	39.6	
79 1,1,2-Trichloroethane	97	9.488	9.488	0.000	91	133711	50.0	51.5	
80 Tetrachloroethene	164	9.561	9.561	0.000	95	99595	50.0	41.9	
81 1,3-Dichloropropane	76	9.652	9.652	0.000	96	221411	50.0	46.1	
82 2-Hexanone	43	9.707	9.707	0.000	99	197863	100.0	80.5	
84 Chlorodibromomethane	129	9.859	9.859	0.000	92	103222	50.0	47.0	
85 Ethylene Dibromide	107	9.974	9.974	0.000	100	122450	50.0	46.0	
86 3-Chlorobenzotrifluoride	180	10.436	10.436	0.000	87	212217	50.0	49.4	
87 Chlorobenzene	112	10.461	10.461	0.000	95	365391	50.0	45.0	
88 4-Chlorobenzotrifluoride	180	10.522	10.522	0.000	96	208574	50.0	52.6	
89 1,1,1,2-Tetrachloroethane	131	10.552	10.552	0.000	92	123343	50.0	47.8	
90 Ethylbenzene	106	10.558	10.558	0.000	98	192783	50.0	42.6	
91 m-Xylene & p-Xylene	106	10.692	10.692	0.000	0	238051	50.0	43.0	
92 o-Xylene	106	11.075	11.075	0.000	96	224536	50.0	42.6	
93 Styrene	104	11.093	11.093	0.000	96	381932	50.0	42.8	
94 Bromoform	173	11.276	11.276	0.000	93	59285	50.0	43.5	
96 2-Chlorobenzotrifluoride	180	11.343	11.343	0.000	94	204501	50.0	49.8	
97 Isopropylbenzene	105	11.440	11.440	0.000	96	518720	50.0	40.3	
99 1,1,2,2-Tetrachloroethane	83	11.750	11.750	0.000	91	178471	50.0	46.4	
100 Bromobenzene	156	11.756	11.756	0.000	95	137633	50.0	41.4	
102 trans-1,4-Dichloro-2-buten	53	11.786	11.786	0.000	81	59138	50.0	59.0	
101 1,2,3-Trichloropropane	110	11.805	11.805	0.000	87	63143	50.0	46.1	
103 N-Propylbenzene	120	11.853	11.853	0.000	99	150258	50.0	39.6	
104 2-Chlorotoluene	126	11.939	11.939	0.000	96	133742	50.0	40.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.011	12.011	0.000	97	181950	50.0	51.0	
106 1,3,5-Trimethylbenzene	105	12.036	12.036	0.000	96	451708	50.0	41.6	
107 4-Chlorotoluene	126	12.066	12.066	0.000	97	153377	50.0	43.3	
108 tert-Butylbenzene	119	12.352	12.352	0.000	95	330011	50.0	36.3	
110 1,2,4-Trimethylbenzene	105	12.413	12.413	0.000	97	445266	50.0	40.3	
111 1,2-dichloro-4-(trifluorom	214	12.455	12.455	0.000	93	114872	50.0	41.5	
112 sec-Butylbenzene	105	12.577	12.577	0.000	94	487345	50.0	38.5	
113 1,3-Dichlorobenzene	146	12.693	12.693	0.000	97	259672	50.0	43.7	
114 4-Isopropyltoluene	119	12.729	12.729	0.000	97	402634	50.0	38.2	
115 1,4-Dichlorobenzene	146	12.796	12.796	0.000	96	268333	50.0	44.0	
116 2,4-Dichloro-1-(trifluorom	214	12.826	12.826	0.000	93	110534	50.0	42.9	
118 2,5-Dichlorobenzotrifluori	214	12.863	12.863	0.000	0	114966	50.0	41.3	
120 n-Butylbenzene	91	13.143	13.143	0.000	98	309833	50.0	36.0	
121 1,2-Dichlorobenzene	146	13.155	13.155	0.000	97	253606	50.0	44.8	
122 1,2-Dibromo-3-Chloropropan	75	13.945	13.945	0.000	81	25043	50.0	39.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.085	14.085	0.000	0	487762	150.0	135.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.505	14.505	0.000	0	321588	100.0	86.7	
126 1,2,4-Trichlorobenzene	180	14.766	14.766	0.000	95	84134	50.0	32.5	
127 Hexachlorobutadiene	225	14.906	14.906	0.000	92	30827	50.0	32.5	
128 Naphthalene	128	15.034	15.034	0.000	97	308438	50.0	35.0	
129 1,2,3-Trichlorobenzene	180	15.259	15.259	0.000	96	78184	50.0	33.1	
131 2,4,5-Trichlorotoluene	159	16.025	16.025	0.000	0	27385	50.0	24.4	
130 2,3,6-Trichlorotoluene	159	16.122	16.122	0.000	95	29132	50.0	27.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	85.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	88.5	
S 135 1,3-Dichloropropene, Total	1				0		100.0	92.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00017	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00025	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D02.D

Injection Date: 12-Nov-2017 17:04:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

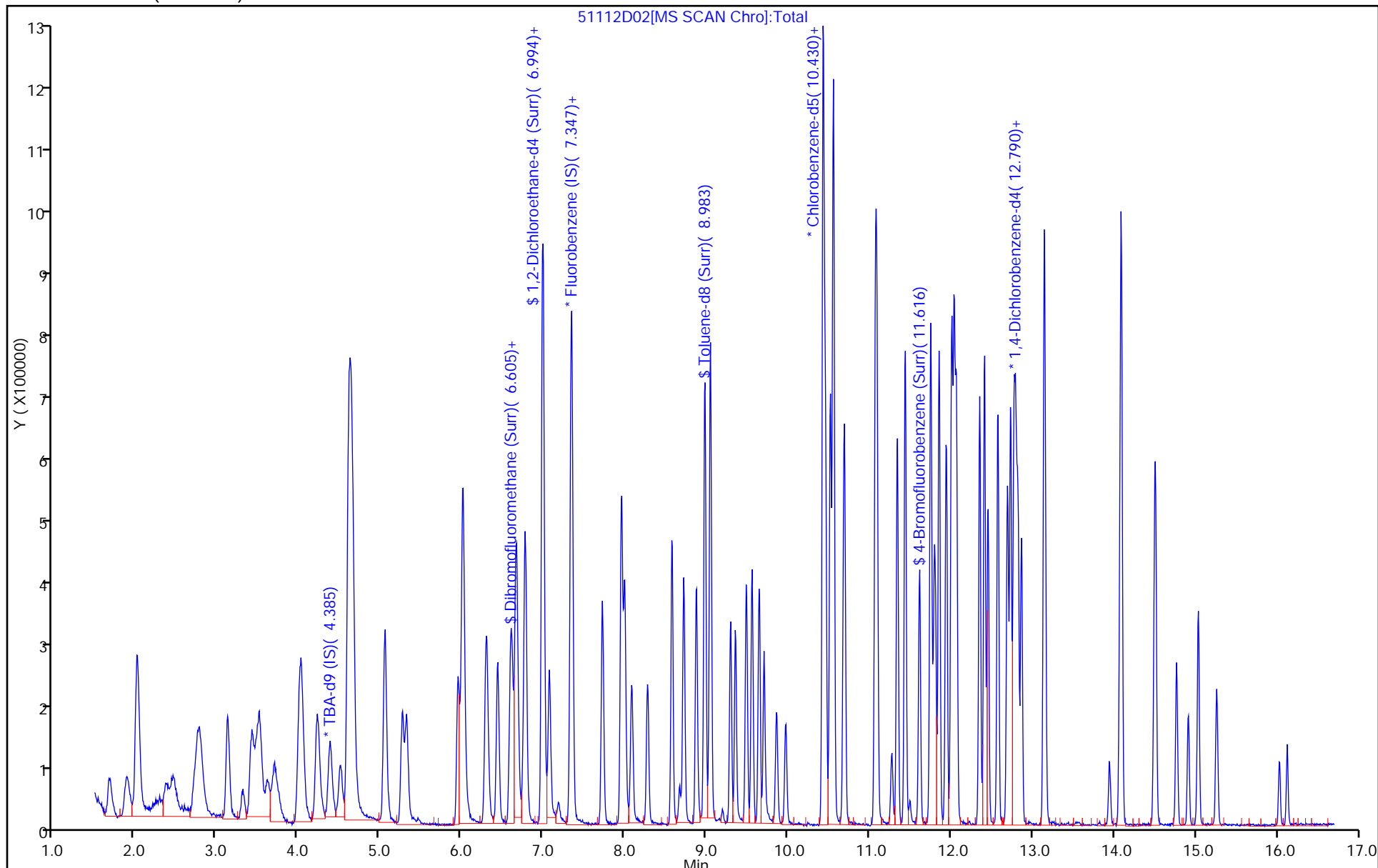
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

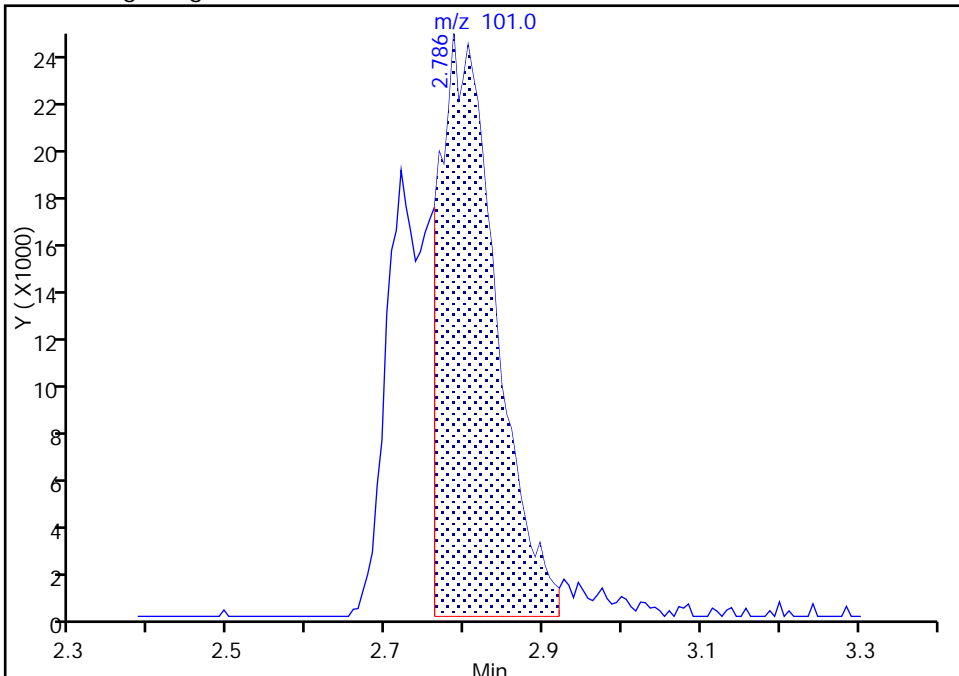
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D02.D
Injection Date: 12-Nov-2017 17:04:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

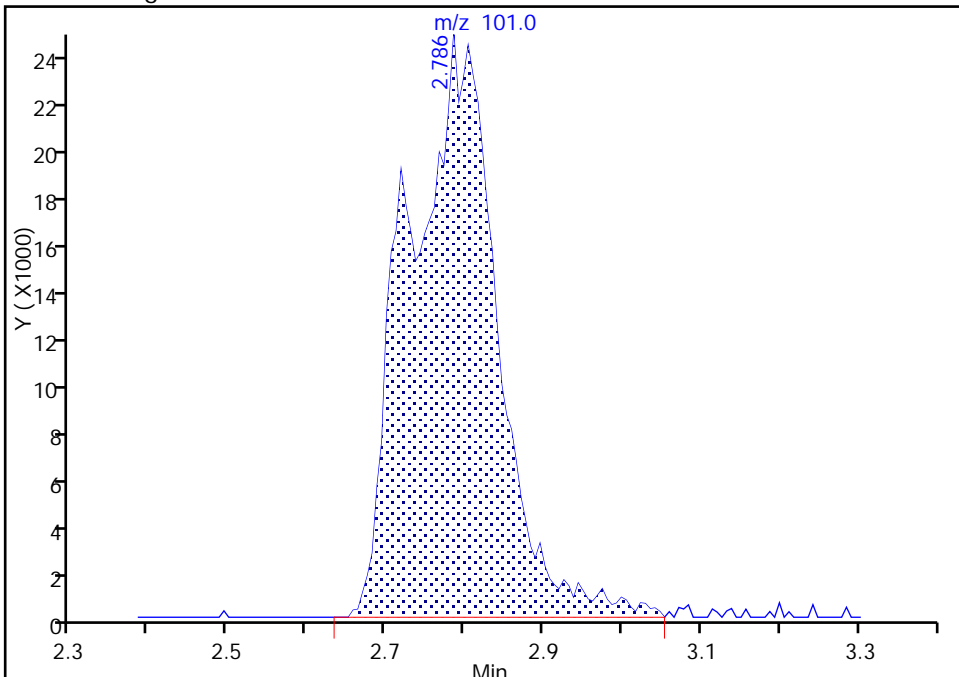
RT: 2.79
Area: 121829
Amount: 28.609232
Amount Units: ng

Processing Integration Results



RT: 2.79
Area: 192600
Amount: 45.228460
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 12-Nov-2017 17:33:04
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh

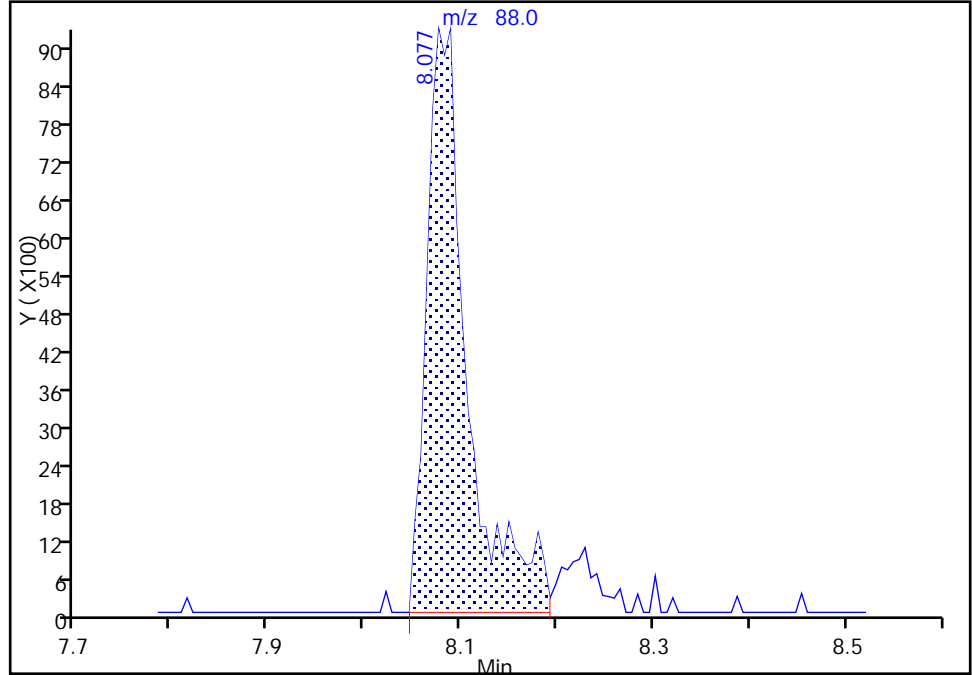
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D02.D
Injection Date: 12-Nov-2017 17:04:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

Signal: 1

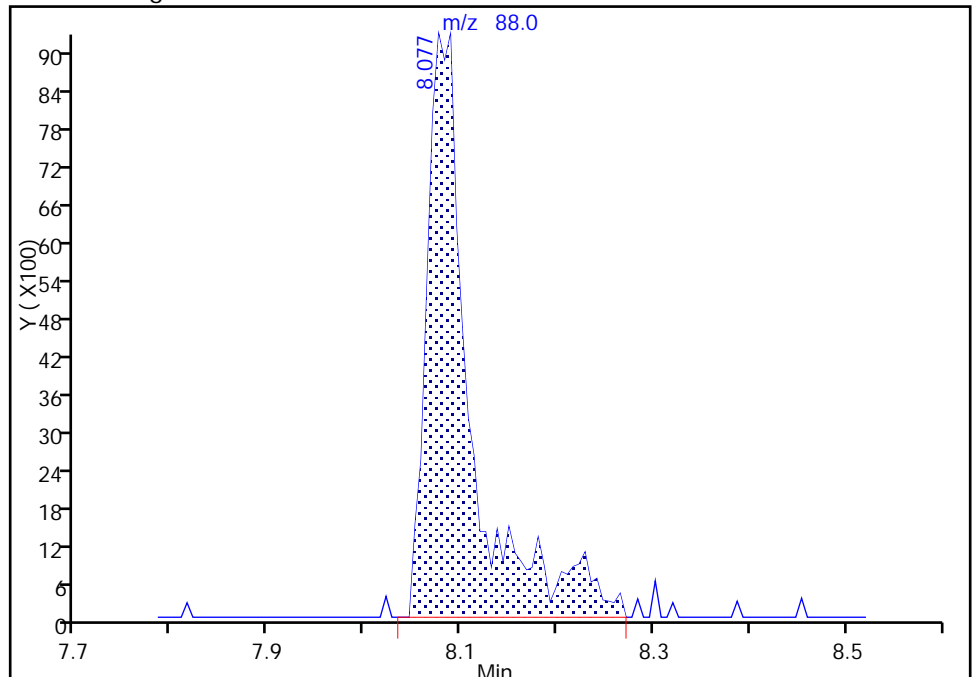
RT: 8.08
Area: 26835
Amount: 797.5819
Amount Units: ng

Processing Integration Results



RT: 8.08
Area: 29302
Amount: 870.9054
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 12-Nov-2017 17:40:36
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228816/2 Calibration Date: 11/13/2017 23:53
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51113D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.3247	0.1000	11.2	10.0	11.7	20.0
Chloromethane	Ave	0.2922	0.3629	0.1000	12.4	10.0	24.2*	20.0
Vinyl chloride	Ave	0.2965	0.2894	0.1000	9.76	10.0	-2.4	20.0
1,3-Butadiene	Ave	0.2694	0.3530	0.0100	13.1	10.0	31.0*	20.0
Bromomethane	Ave	0.1402	0.0782	0.0500	5.58	10.0	-44.2*	20.0
Chloroethane	Ave	0.1630	0.2086	0.0500	12.8	10.0	28.0*	20.0
Trichlorofluoromethane	Ave	0.3643	0.4000	0.1000	11.0	10.0	9.8	20.0
Ethyl ether	Ave	0.2370	0.2724	0.0100	11.5	10.0	15.0	20.0
Acrolein	Ave	0.0597	0.0563	0.0100	28.3	30.0	-5.8	20.0
1,1-Dichloroethene	Ave	0.2448	0.2413	0.1000	9.86	10.0	-1.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2788	0.1000	10.4	10.0	3.8	20.0
Acetone	Ave	0.1308	0.1370	0.0500	20.9	20.0	4.7	20.0
Iodomethane	Ave	0.3845	0.3658	0.0100	9.51	10.0	-4.9	20.0
Carbon disulfide	Ave	0.5372	0.5197	0.1000	9.67	10.0	-3.3	20.0
Allyl chloride	Ave	0.1582	0.1452	0.0100	9.18	10.0	-8.2	20.0
Methyl acetate	Ave	0.2589	0.2844	0.1000	22.0	20.0	9.8	20.0
Methylene Chloride	Lin2		0.2656	0.1000	8.68	10.0	-13.2	20.0
tert-Butyl alcohol	Ave	1.183	1.266	0.0100	107	100	7.1	20.0
Acrylonitrile	Ave	0.1259	0.1316	0.0100	104	100	4.5	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2654	0.1000	9.51	10.0	-4.9	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6343	0.1000	8.48	10.0	-15.2	20.0
Hexane	Ave	0.3580	0.3651	0.0100	10.2	10.0	2.0	20.0
1,1-Dichloroethane	Ave	0.4850	0.4545	0.2000	9.37	10.0	-6.3	20.0
Vinyl acetate	Ave	0.4932	0.5360	0.0100	10.9	10.0	8.7	20.0
2,2-Dichloropropane	Ave	0.0617	0.0684	0.0100	11.1	10.0	10.7	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2903	0.1000	9.10	10.0	-9.0	20.0
2-Butanone (MEK)	Ave	0.1861	0.1906	0.0500	20.5	20.0	2.4	20.0
Bromochloromethane	Ave	0.1418	0.1250	0.0100	8.82	10.0	-11.8	20.0
Tetrahydrofuran	Ave	0.1084	0.0928	0.0100	17.1	20.0	-14.4	20.0
Chloroform	Ave	0.4843	0.4189	0.2000	8.65	10.0	-13.5	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3392	0.1000	9.25	10.0	-7.5	20.0
Cyclohexane	Ave	0.4524	0.4477	0.1000	9.90	10.0	-1.0	20.0
Carbon tetrachloride	Ave	0.3051	0.2888	0.1000	9.47	10.0	-5.3	20.0
1,1-Dichloropropene	Ave	0.3961	0.3239	0.0100	8.18	10.0	-18.2	20.0
Isobutyl alcohol	Ave	0.0099	0.0106	0.0100	265	250	6.2	20.0
Benzene	Ave	1.216	1.060	0.5000	8.72	10.0	-12.8	20.0
1,2-Dichloroethane	Ave	0.3544	0.3200	0.1000	9.03	10.0	-9.7	20.0
n-Heptane	Ave	0.2863	0.3238	0.0100	11.3	10.0	13.1	20.0
Trichloroethene	Ave	0.3059	0.2447	0.2000	8.00	10.0	-20.0	20.0
Methylcyclohexane	Ave	0.4626	0.3488	0.1000	7.54	10.0	-24.6*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228816/2 Calibration Date: 11/13/2017 23:53
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51113D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2522	0.1000	8.91	10.0	-10.9	20.0
1,4-Dioxane	Ave	0.0029	0.0027*	0.0100	187	200	-6.3	20.0
Dibromomethane	Ave	0.1659	0.1441	0.0100	8.69	10.0	-13.1	20.0
Bromodichloromethane	Ave	0.3256	0.2649	0.2000	8.14	10.0	-18.6	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1619	0.0100	15.9	20.0	-20.5*	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3274	0.2000	8.28	10.0	-17.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.335	0.1000	20.8	20.0	4.1	20.0
Toluene	Ave	4.986	4.916	0.4000	9.86	10.0	-1.4	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.272	0.1000	9.38	10.0	-6.2	20.0
Ethyl methacrylate	Ave	1.636	1.149	0.0100	7.02	10.0	-29.8*	20.0
1,1,2-Trichloroethane	Ave	1.039	1.028	0.1000	9.90	10.0	-1.0	20.0
Tetrachloroethene	Ave	0.9508	0.8564	0.2000	9.01	10.0	-9.9	20.0
1,3-Dichloropropane	Ave	1.920	1.623	0.0100	8.45	10.0	-15.5	20.0
2-Hexanone	Ave	0.9836	0.9316	0.1000	18.9	20.0	-5.3	20.0
Dibromochloromethane	Ave	0.8779	0.8472	0.1000	9.65	10.0	-3.5	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9431	0.1000	8.85	10.0	-11.5	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.786	0.0100	10.4	10.0	4.0	20.0
Chlorobenzene	Ave	3.246	2.956	0.5000	9.11	10.0	-8.9	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.677	0.0100	10.6	10.0	5.8	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	1.002	0.0100	9.71	10.0	-2.9	20.0
Ethylbenzene	Ave	1.812	1.588	0.1000	8.76	10.0	-12.4	20.0
m-Xylene & p-Xylene	Ave	2.214	1.977	0.1000	8.93	10.0	-10.7	20.0
o-Xylene	Ave	2.110	1.866	0.3000	8.84	10.0	-11.6	20.0
Styrene	Ave	3.571	3.206	0.3000	8.98	10.0	-10.2	20.0
Bromoform	Ave	0.5456	0.4662	0.1000	8.54	10.0	-14.6	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.717	0.0100	10.4	10.0	4.4	20.0
Isopropylbenzene	Ave	5.150	4.485	0.1000	8.71	10.0	-12.9	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.418	0.3000	9.22	10.0	-7.8	20.0
Bromobenzene	Ave	0.9704	0.7978	0.0100	8.22	10.0	-17.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3349	0.0100	11.4	10.0	14.4	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3337	0.0100	8.33	10.0	-16.7	20.0
N-Propylbenzene	Ave	1.109	0.9617	0.0100	8.67	10.0	-13.3	20.0
2-Chlorotoluene	Ave	0.9585	0.8076	0.0100	8.43	10.0	-15.7	20.0
3-Chlorotoluene	Ave	1.043	1.037	0.0100	9.95	10.0	-0.5	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.803	0.0100	8.83	10.0	-11.7	20.0
4-Chlorotoluene	Ave	1.035	0.9254	0.0100	8.94	10.0	-10.6	20.0
tert-Butylbenzene	Ave	2.653	2.044	0.0100	7.70	10.0	-23.0*	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.684	0.0100	8.32	10.0	-16.8	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.7255	0.0100	8.98	10.0	-10.2	20.0
sec-Butylbenzene	Ave	3.701	3.127	0.0100	8.45	10.0	-15.5	20.0
1,3-Dichlorobenzene	Ave	1.734	1.500	0.6000	8.65	10.0	-13.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-228816/2 Calibration Date: 11/13/2017 23:53
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51113D02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	2.621	0.0100	8.50	10.0	-15.0	20.0
1,4-Dichlorobenzene	Ave	1.780	1.613	0.5000	9.06	10.0	-9.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6752	0.0100	8.97	10.0	-10.3	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.6980	0.0100	8.59	10.0	-14.1	20.0
n-Butylbenzene	Ave	2.514	1.987	0.0100	7.90	10.0	-21.0*	20.0
1,2-Dichlorobenzene	Ave	1.653	1.497	0.4000	9.06	10.0	-9.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1419	0.0500	7.73	10.0	-22.7*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.002	0.0100	28.7	30.0	-4.4	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	0.9732	0.0100	18.0	20.0	-10.2	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5224	0.2000	6.91	10.0	-30.9*	20.0
Hexachlorobutadiene	Ave	0.2767	0.2151	0.0100	7.77	10.0	-22.3*	20.0
Naphthalene	Ave	2.576	1.691	0.0100	6.56	10.0	-34.4*	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4651	0.0100	6.73	10.0	-32.7*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.1974	0.0100	6.01	10.0	-39.9*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.1969	0.0100	6.45	10.0	-35.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2243		9.32	10.0	-6.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.2850		9.71	10.0	-2.9	20.0
Toluene-d8 (Surr)	Ave	3.979	4.309		10.8	10.0	8.3	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.407		9.79	10.0	-2.1	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D02.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 13-Nov-2017 23:53:30 ALS Bottle#: 2 Worklist Smp#: 2
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-002
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub29
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:19 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf Date: 14-Nov-2017 00:52:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.388	4.388	0.000	0	250718	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.337	7.337	0.000	97	604768	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.433	0.000	86	130770	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.774	0.000	94	186022	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.614	6.614	0.000	93	135646	50.0	46.6	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.984	6.984	0.000	0	172373	50.0	48.6	
\$ 7 Toluene-d8 (Surr)	98	8.985	8.985	0.000	94	563510	50.0	54.1	
\$ 8 4-Bromofluorobenzene (Surr	95	11.612	11.612	0.000	84	184055	50.0	49.0	
11 Dichlorodifluoromethane	85	1.675	1.675	0.000	99	196359	50.0	55.8	
12 Chloromethane	50	1.894	1.894	0.000	99	219463	50.0	62.1	
13 Vinyl chloride	62	2.010	2.010	0.000	73	175021	50.0	48.8	
14 Butadiene	39	2.016	2.016	0.000	94	213492	50.0	65.5	
15 Bromomethane	94	2.338	2.338	0.000	81	47306	50.0	27.9	
16 Chloroethane	64	2.448	2.448	0.000	99	126176	50.0	64.0	
17 Dichlorofluoromethane	67	2.758	2.758	0.000	97	295474	50.0	59.3	
18 Trichlorofluoromethane	101	2.794	2.794	0.000	52	241927	50.0	54.9	M
20 Ethyl ether	59	3.129	3.129	0.000	94	164766	50.0	57.5	
21 Acrolein	56	3.317	3.317	0.000	97	102088	150.0	141.3	
22 1,1-Dichloroethene	96	3.415	3.415	0.000	98	145907	50.0	49.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.512	3.512	0.000	93	168634	50.0	51.9	
24 Acetone	43	3.530	3.530	0.000	100	165655	100.0	104.7	
25 Iodomethane	142	3.622	3.622	0.000	97	221191	50.0	47.6	
26 Carbon disulfide	76	3.701	3.701	0.000	99	314320	50.0	48.4	
28 3-Chloro-1-propene	76	3.999	3.999	0.000	91	87799	50.0	45.9	
30 Methyl acetate	43	4.047	4.047	0.000	99	343945	100.0	109.8	
31 Methylene Chloride	84	4.224	4.224	0.000	97	160600	50.0	43.4	
32 2-Methyl-2-propanol	59	4.509	4.509	0.000	92	158714	500.0	535.3	
33 Acrylonitrile	53	4.613	4.613	0.000	100	795552	500.0	522.4	
34 trans-1,2-Dichloroethene	96	4.643	4.643	0.000	98	160501	50.0	47.6	
35 Methyl tert-butyl ether	73	4.661	4.661	0.000	97	383587	50.0	42.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.057	5.057	0.000	95	220808	50.0	51.0	
37 1,1-Dichloroethane	63	5.270	5.270	0.000	96	274886	50.0	46.9	
38 Vinyl acetate	43	5.324	5.324	0.000	97	324129	50.0	54.3	
44 2,2-Dichloropropane	97	6.011	6.011	0.000	63	41341	50.0	55.4	
45 cis-1,2-Dichloroethene	96	6.011	6.011	0.000	81	175567	50.0	45.5	
46 2-Butanone (MEK)	43	6.030	6.030	0.000	91	230496	100.0	102.4	
49 Chlorobromomethane	128	6.297	6.297	0.000	97	75619	50.0	44.1	
51 Tetrahydrofuran	42	6.309	6.309	0.000	88	112208	100.0	85.6	
52 Chloroform	83	6.443	6.443	0.000	94	253321	50.0	43.2	
53 1,1,1-Trichloroethane	97	6.595	6.595	0.000	98	205150	50.0	46.3	
54 Cyclohexane	56	6.662	6.662	0.000	95	270774	50.0	49.5	
56 Carbon tetrachloride	117	6.766	6.766	0.000	97	174684	50.0	47.3	
55 1,1-Dichloropropene	75	6.784	6.784	0.000	93	195866	50.0	40.9	
57 Isobutyl alcohol	41	6.984	6.984	0.000	94	159675	1250.0	1326.9	
58 Benzene	78	6.997	6.997	0.000	97	640839	50.0	43.6	
59 1,2-Dichloroethane	62	7.076	7.076	0.000	96	193538	50.0	45.2	
62 n-Heptane	43	7.355	7.355	0.000	93	195821	50.0	56.6	
64 Trichloroethene	130	7.726	7.726	0.000	99	147965	50.0	40.0	
66 Methylcyclohexane	83	7.958	7.958	0.000	94	210961	50.0	37.7	
67 1,2-Dichloropropane	63	8.000	8.000	0.000	95	152500	50.0	44.5	
70 1,4-Dioxane	88	8.085	8.085	0.000	49	32613	1000.0	936.6	
68 Dibromomethane	93	8.091	8.091	0.000	93	87165	50.0	43.4	
71 Dichlorobromomethane	83	8.280	8.280	0.000	99	160226	50.0	40.7	
73 2-Chloroethyl vinyl ether	63	8.578	8.578	0.000	92	195852	100.0	79.5	
74 cis-1,3-Dichloropropene	75	8.718	8.718	0.000	93	197995	50.0	41.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.876	8.876	0.000	99	349176	100.0	104.1	
76 Toluene	91	9.052	9.052	0.000	98	642896	50.0	49.3	
77 trans-1,3-Dichloropropene	75	9.301	9.301	0.000	97	166321	50.0	46.9	
78 Ethyl methacrylate	69	9.356	9.356	0.000	92	150207	50.0	35.1	
79 1,1,2-Trichloroethane	97	9.490	9.490	0.000	93	134462	50.0	49.5	
80 Tetrachloroethene	164	9.563	9.563	0.000	94	111989	50.0	45.0	
81 1,3-Dichloropropane	76	9.648	9.648	0.000	97	212246	50.0	42.3	
82 2-Hexanone	43	9.709	9.709	0.000	98	243648	100.0	94.7	
84 Chlorodibromomethane	129	9.861	9.861	0.000	91	110787	50.0	48.2	
85 Ethylene Dibromide	107	9.977	9.977	0.000	97	123324	50.0	44.3	
86 3-Chlorobenzotrifluoride	180	10.433	10.433	0.000	87	233562	50.0	52.0	
87 Chlorobenzene	112	10.457	10.457	0.000	94	386513	50.0	45.5	
88 4-Chlorobenzotrifluoride	180	10.518	10.518	0.000	96	219344	50.0	52.9	
89 1,1,1,2-Tetrachloroethane	131	10.548	10.548	0.000	94	131004	50.0	48.5	
90 Ethylbenzene	106	10.560	10.560	0.000	98	207653	50.0	43.8	
91 m-Xylene & p-Xylene	106	10.688	10.688	0.000	0	258540	50.0	44.6	
92 o-Xylene	106	11.071	11.071	0.000	95	243953	50.0	44.2	
93 Styrene	104	11.095	11.095	0.000	96	419242	50.0	44.9	
94 Bromoform	173	11.272	11.272	0.000	94	60960	50.0	42.7	
96 2-Chlorobenzotrifluoride	180	11.339	11.339	0.000	94	224575	50.0	52.2	
97 Isopropylbenzene	105	11.442	11.442	0.000	96	586511	50.0	43.5	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.752	0.000	86	185378	50.0	46.1	
100 Bromobenzene	156	11.752	11.752	0.000	96	148400	50.0	41.1	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.789	0.000	84	62289	50.0	57.2	
101 1,2,3-Trichloropropane	110	11.807	11.807	0.000	86	62073	50.0	41.7	
103 N-Propylbenzene	120	11.856	11.856	0.000	99	178890	50.0	43.4	
104 2-Chlorotoluene	126	11.941	11.941	0.000	96	150235	50.0	42.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.008	12.008	0.000	97	192942	50.0	49.7	
106 1,3,5-Trimethylbenzene	105	12.038	12.038	0.000	94	521491	50.0	44.2	
107 4-Chlorotoluene	126	12.068	12.068	0.000	96	172144	50.0	44.7	
108 tert-Butylbenzene	119	12.354	12.354	0.000	95	380165	50.0	38.5	
110 1,2,4-Trimethylbenzene	105	12.409	12.409	0.000	97	499344	50.0	41.6	
111 1,2-dichloro-4-(trifluorom	214	12.458	12.458	0.000	94	134949	50.0	44.9	
112 sec-Butylbenzene	105	12.573	12.573	0.000	94	581717	50.0	42.2	
113 1,3-Dichlorobenzene	146	12.695	12.695	0.000	98	278953	50.0	43.2	
114 4-Isopropyltoluene	119	12.731	12.731	0.000	97	487642	50.0	42.5	
115 1,4-Dichlorobenzene	146	12.798	12.798	0.000	95	299991	50.0	45.3	
116 2,4-Dichloro-1-(trifluorom	214	12.823	12.823	0.000	93	125606	50.0	44.9	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.865	0.000	0	129836	50.0	42.9	
120 n-Butylbenzene	91	13.139	13.139	0.000	98	369669	50.0	39.5	
121 1,2-Dichlorobenzene	146	13.151	13.151	0.000	97	278461	50.0	45.3	
122 1,2-Dibromo-3-Chloropropan	75	13.942	13.942	0.000	79	26391	50.0	38.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.087	14.087	0.000	0	559173	150.0	143.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.507	14.507	0.000	0	362075	100.0	89.8	
126 1,2,4-Trichlorobenzene	180	14.763	14.763	0.000	94	97180	50.0	34.5	
127 Hexachlorobutadiene	225	14.915	14.915	0.000	92	40014	50.0	38.9	
128 Naphthalene	128	15.030	15.030	0.000	97	314473	50.0	32.8	
129 1,2,3-Trichlorobenzene	180	15.261	15.261	0.000	95	86526	50.0	33.7	
131 2,4,5-Trichlorotoluene	159	16.027	16.027	0.000	0	36719	50.0	30.1	
130 2,3,6-Trichlorotoluene	159	16.119	16.119	0.000	96	36636	50.0	32.2	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	93.1	
S 133 Xylenes, Total	106				0		100.0	88.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	88.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00017	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00025	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00272	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D02.D

Injection Date: 13-Nov-2017 23:53:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 2

Client ID:

Purge Vol: 5.000 mL

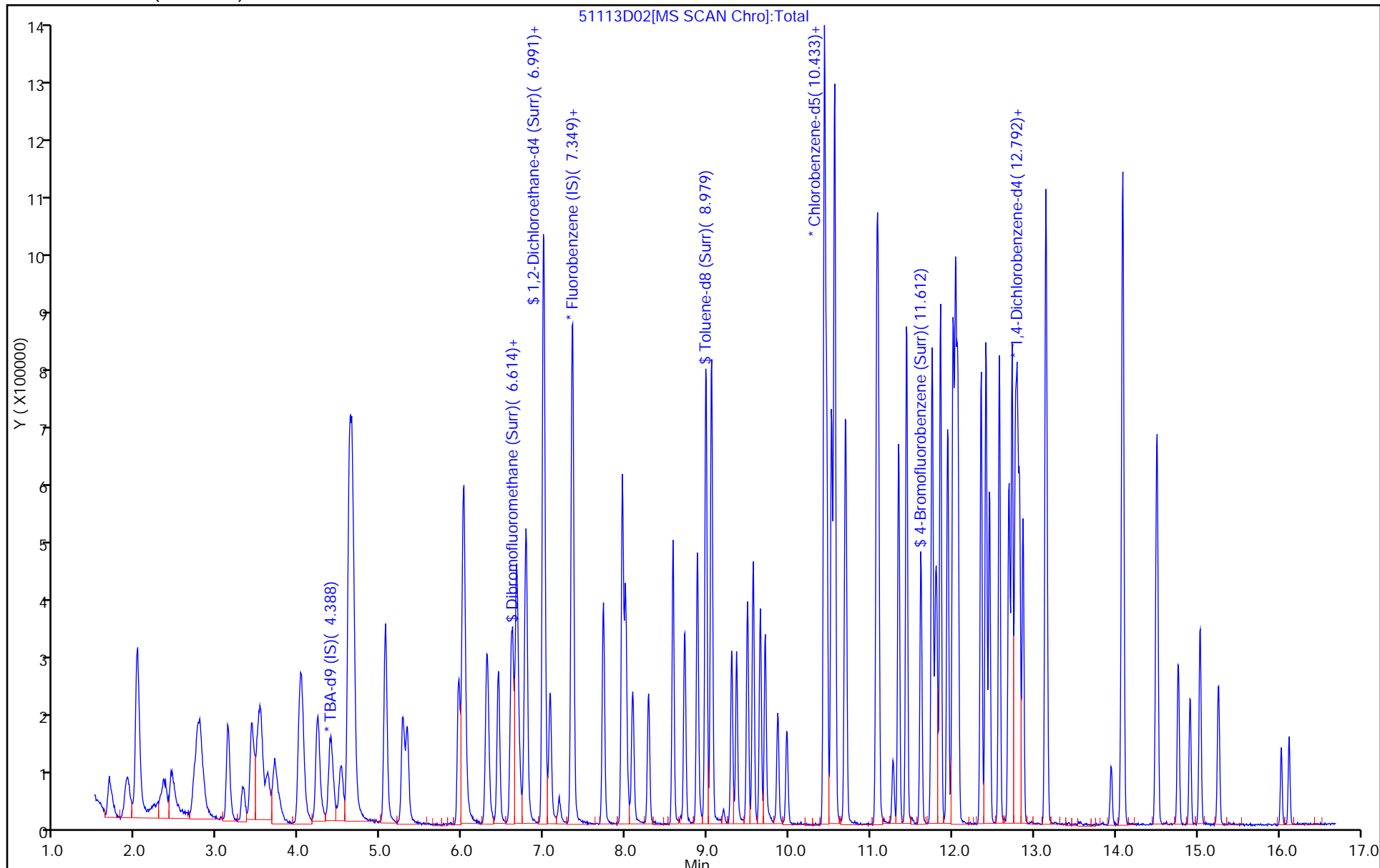
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

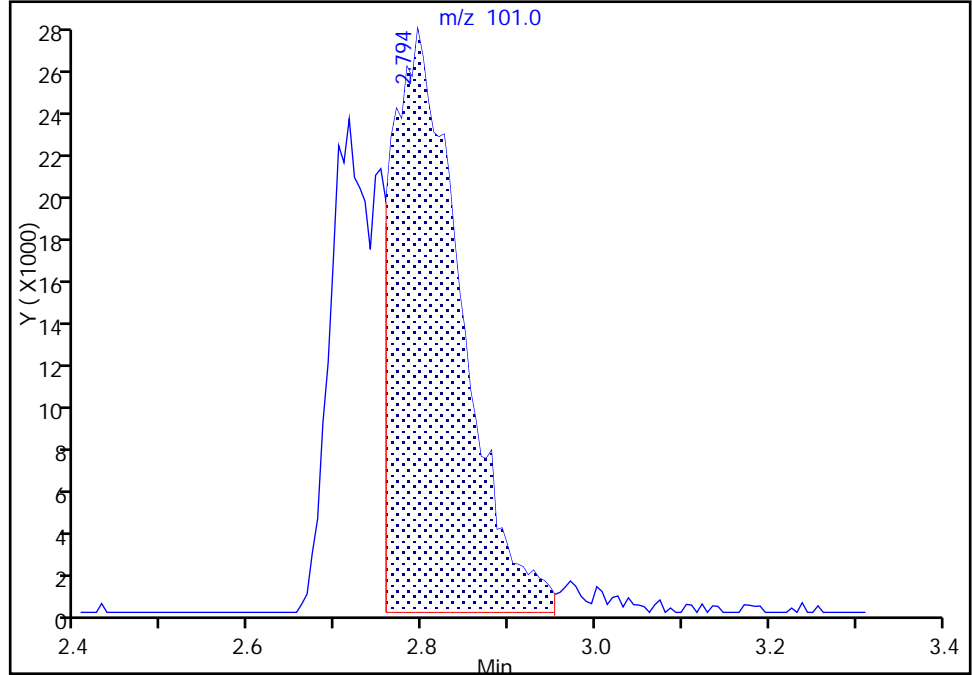
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D02.D
Injection Date: 13-Nov-2017 23:53:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

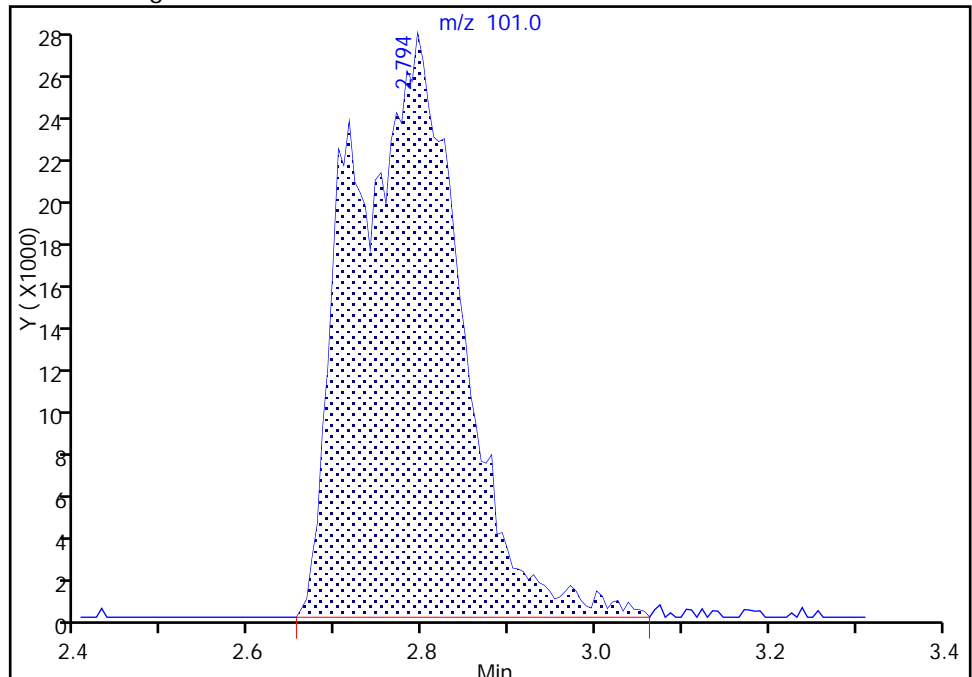
RT: 2.79
Area: 153142
Amount: 34.750542
Amount Units: ng

Processing Integration Results



RT: 2.79
Area: 241927
Amount: 54.897378
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 14-Nov-2017 00:39:55
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-229098/4 Calibration Date: 11/16/2017 01:49
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51115D04.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2907	0.3021	0.1000	10.4	10.0	3.9	20.0
Chloromethane	Ave	0.2922	0.3187	0.1000	10.9	10.0	9.1	20.0
Vinyl chloride	Ave	0.2965	0.2939	0.1000	9.91	10.0	-0.9	20.0
1,3-Butadiene	Ave	0.2694	0.3247	0.0100	12.1	10.0	20.5*	20.0
Bromomethane	Ave	0.1402	0.0941	0.0500	6.71	10.0	-32.9*	20.0
Chloroethane	Ave	0.1630	0.1804	0.0500	11.1	10.0	10.7	20.0
Trichlorofluoromethane	Ave	0.3643	0.3618	0.1000	9.93	10.0	-0.7	20.0
Ethyl ether	Ave	0.2370	0.2552	0.0100	10.8	10.0	7.7	20.0
Acrolein	Ave	0.0597	0.0549	0.0100	27.6	30.0	-8.0	20.0
1,1-Dichloroethene	Ave	0.2448	0.2165	0.1000	8.84	10.0	-11.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2686	0.2355	0.1000	8.77	10.0	-12.3	20.0
Acetone	Ave	0.1308	0.1504	0.0500	23.0	20.0	15.0	20.0
Iodomethane	Ave	0.3845	0.3274	0.0100	8.52	10.0	-14.8	20.0
Carbon disulfide	Ave	0.5372	0.5513	0.1000	10.3	10.0	2.6	20.0
Allyl chloride	Ave	0.1582	0.1429	0.0100	9.03	10.0	-9.7	20.0
Methyl acetate	Ave	0.2589	0.2496	0.1000	19.3	20.0	-3.6	20.0
Methylene Chloride	Lin2		0.2550	0.1000	8.31	10.0	-16.9	20.0
tert-Butyl alcohol	Ave	1.183	1.284	0.0100	109	100	8.6	20.0
Acrylonitrile	Ave	0.1259	0.1250	0.0100	99.2	100	-0.8	20.0
trans-1,2-Dichloroethene	Ave	0.2789	0.2352	0.1000	8.43	10.0	-15.7	20.0
Methyl tert-butyl ether	Ave	0.7479	0.6683	0.1000	8.94	10.0	-10.6	20.0
Hexane	Ave	0.3580	0.3450	0.0100	9.64	10.0	-3.6	20.0
1,1-Dichloroethane	Ave	0.4850	0.4489	0.2000	9.26	10.0	-7.4	20.0
Vinyl acetate	Ave	0.4932	0.5371	0.0100	10.9	10.0	8.9	20.0
2,2-Dichloropropane	Ave	0.0617	0.0617	0.0100	9.98	10.0	-0.2	20.0
cis-1,2-Dichloroethene	Ave	0.3190	0.2689	0.1000	8.43	10.0	-15.7	20.0
2-Butanone (MEK)	Ave	0.1861	0.1820	0.0500	19.6	20.0	-2.2	20.0
Bromochloromethane	Ave	0.1418	0.1157	0.0100	8.16	10.0	-18.4	20.0
Tetrahydrofuran	Ave	0.1084	0.0973	0.0100	18.0	20.0	-10.2	20.0
Chloroform	Ave	0.4843	0.4002	0.2000	8.26	10.0	-17.4	20.0
1,1,1-Trichloroethane	Ave	0.3666	0.3223	0.1000	8.79	10.0	-12.1	20.0
Cyclohexane	Ave	0.4524	0.4463	0.1000	9.87	10.0	-1.3	20.0
Carbon tetrachloride	Ave	0.3051	0.2641	0.1000	8.66	10.0	-13.4	20.0
1,1-Dichloropropene	Ave	0.3961	0.3235	0.0100	8.17	10.0	-18.3	20.0
Isobutyl alcohol	Ave	0.0099	0.0102	0.0100	256	250	2.6	20.0
Benzene	Ave	1.216	1.017	0.5000	8.37	10.0	-16.3	20.0
1,2-Dichloroethane	Ave	0.3544	0.3481	0.1000	9.82	10.0	-1.8	20.0
n-Heptane	Ave	0.2863	0.2977	0.0100	10.4	10.0	4.0	20.0
Trichloroethene	Ave	0.3059	0.2285	0.2000	7.47	10.0	-25.3*	20.0
Methylcyclohexane	Ave	0.4626	0.3674	0.1000	7.94	10.0	-20.6*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-229098/4 Calibration Date: 11/16/2017 01:49
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51115D04.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2831	0.2627	0.1000	9.28	10.0	-7.2	20.0
Dibromomethane	Ave	0.1659	0.1391	0.0100	8.38	10.0	-16.2	20.0
1,4-Dioxane	Ave	0.0029	0.0024*	0.0100	164	200	-18.0	20.0
Bromodichloromethane	Ave	0.3256	0.2870	0.2000	8.81	10.0	-11.9	20.0
2-Chloroethyl vinyl ether	Ave	0.2037	0.1845	0.0100	18.1	20.0	-9.4	20.0
cis-1,3-Dichloropropene	Ave	0.3955	0.3629	0.2000	9.18	10.0	-8.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.282	1.136	0.1000	17.7	20.0	-11.4	20.0
Toluene	Ave	4.986	4.949	0.4000	9.93	10.0	-0.7	20.0
trans-1,3-Dichloropropene	Ave	1.357	1.490	0.1000	11.0	10.0	9.8	20.0
Ethyl methacrylate	Ave	1.636	1.500	0.0100	9.17	10.0	-8.3	20.0
1,1,2-Trichloroethane	Ave	1.039	1.054	0.1000	10.1	10.0	1.4	20.0
Tetrachloroethene	Ave	0.9508	0.7616	0.2000	8.01	10.0	-19.9	20.0
1,3-Dichloropropane	Ave	1.920	1.828	0.0100	9.52	10.0	-4.8	20.0
2-Hexanone	Ave	0.9836	0.9542	0.1000	19.4	20.0	-3.0	20.0
Dibromochloromethane	Ave	0.8779	0.8579	0.1000	9.77	10.0	-2.3	20.0
1,2-Dibromoethane (EDB)	Ave	1.065	0.9672	0.1000	9.08	10.0	-9.2	20.0
3-Chlorobenzotrifluoride	Ave	1.718	1.668	0.0100	9.71	10.0	-2.9	20.0
Chlorobenzene	Ave	3.246	3.061	0.5000	9.43	10.0	-5.7	20.0
4-Chlorobenzotrifluoride	Ave	1.586	1.484	0.0100	9.36	10.0	-6.4	20.0
1,1,1,2-Tetrachloroethane	Ave	1.032	0.9714	0.0100	9.41	10.0	-5.9	20.0
Ethylbenzene	Ave	1.812	1.613	0.1000	8.90	10.0	-11.0	20.0
m-Xylene & p-Xylene	Ave	2.214	1.929	0.1000	8.71	10.0	-12.9	20.0
o-Xylene	Ave	2.110	1.856	0.3000	8.80	10.0	-12.0	20.0
Styrene	Ave	3.571	3.131	0.3000	8.77	10.0	-12.3	20.0
Bromoform	Ave	0.5456	0.5171	0.1000	9.48	10.0	-5.2	20.0
2-Chlorobenzotrifluoride	Ave	1.644	1.564	0.0100	9.51	10.0	-4.9	20.0
Isopropylbenzene	Ave	5.150	4.576	0.1000	8.89	10.0	-11.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.538	1.533	0.3000	9.97	10.0	-0.3	20.0
Bromobenzene	Ave	0.9704	0.8175	0.0100	8.42	10.0	-15.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.2926	0.3690	0.0100	12.6	10.0	26.1*	20.0
1,2,3-Trichloropropane	Ave	0.4005	0.3615	0.0100	9.03	10.0	-9.7	20.0
N-Propylbenzene	Ave	1.109	0.9375	0.0100	8.45	10.0	-15.5	20.0
2-Chlorotoluene	Ave	0.9585	0.8027	0.0100	8.37	10.0	-16.3	20.0
3-Chlorotoluene	Ave	1.043	1.064	0.0100	10.2	10.0	2.0	20.0
1,3,5-Trimethylbenzene	Ave	3.173	2.646	0.0100	8.34	10.0	-16.6	20.0
4-Chlorotoluene	Ave	1.035	0.9241	0.0100	8.93	10.0	-10.7	20.0
tert-Butylbenzene	Ave	2.653	2.179	0.0100	8.21	10.0	-17.9	20.0
1,2,4-Trimethylbenzene	Ave	3.226	2.765	0.0100	8.57	10.0	-14.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8081	0.6610	0.0100	8.18	10.0	-18.2	20.0
sec-Butylbenzene	Ave	3.701	3.101	0.0100	8.38	10.0	-16.2	20.0
1,3-Dichlorobenzene	Ave	1.734	1.473	0.6000	8.49	10.0	-15.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Lab Sample ID: CCVIS 180-229098/4 Calibration Date: 11/16/2017 01:49
 Instrument ID: CHHP5 Calib Start Date: 07/27/2017 00:51
 GC Column: DB-624 ID: 0.18 (mm) Calib End Date: 07/27/2017 04:24
 Lab File ID: 51115D04.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	3.083	2.565	0.0100	8.32	10.0	-16.8	20.0
1,4-Dichlorobenzene	Ave	1.780	1.556	0.5000	8.74	10.0	-12.6	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7524	0.6012	0.0100	7.99	10.0	-20.1*	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8127	0.6764	0.0100	8.32	10.0	-16.8	20.0
n-Butylbenzene	Ave	2.514	2.183	0.0100	8.68	10.0	-13.2	20.0
1,2-Dichlorobenzene	Ave	1.653	1.462	0.4000	8.85	10.0	-11.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1835	0.1811	0.0500	9.87	10.0	-1.3	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.048	1.069	0.0100	30.6	30.0	1.9	20.0
2,3- & 3,4- Dichlorotoluene	Ave	1.084	1.054	0.0100	19.5	20.0	-2.7	20.0
1,2,4-Trichlorobenzene	Ave	0.7563	0.5708	0.2000	7.55	10.0	-24.5*	20.0
Hexachlorobutadiene	Ave	0.2767	0.1751	0.0100	6.33	10.0	-36.7*	20.0
Naphthalene	Ave	2.576	2.092	0.0100	8.12	10.0	-18.8	20.0
1,2,3-Trichlorobenzene	Ave	0.6909	0.4818	0.0100	6.97	10.0	-30.3*	20.0
2,4,5-Trichlorotoluene	Ave	0.3284	0.2363	0.0100	7.20	10.0	-28.0*	20.0
2,3,6-Trichlorotoluene	Ave	0.3055	0.2370	0.0100	7.76	10.0	-22.4*	20.0
Dibromofluoromethane (Surr)	Ave	0.2406	0.2321		9.65	10.0	-3.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2934	0.3100		10.6	10.0	5.7	20.0
Toluene-d8 (Surr)	Ave	3.979	4.639		11.7	10.0	16.6	20.0
4-Bromofluorobenzene (Surr)	Ave	1.437	1.589		11.1	10.0	10.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D04.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 16-Nov-2017 01:49:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-004
 Misc. Info.: CCVIS
 Operator ID: 034635 Instrument ID: CHHP5
 Sublist: chrom-MSVOA_LL_CHHP5*sub29
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 02:16:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.377	4.377	0.000	0	274114	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.352	7.352	0.000	96	654684	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.443	10.443	0.000	89	137160	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	94	186001	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.622	0.000	91	151976	50.0	48.2	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.993	6.993	0.000	0	202969	50.0	52.8	
\$ 7 Toluene-d8 (Surr)	98	8.995	8.995	0.000	95	636337	50.0	58.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.629	11.629	0.000	81	217904	50.0	55.3	
11 Dichlorodifluoromethane	85	1.640	1.640	0.000	99	197795	50.0	52.0	
12 Chloromethane	50	1.859	1.859	0.000	99	208656	50.0	54.5	
13 Vinyl chloride	62	1.974	1.974	0.000	98	192387	50.0	49.5	
14 Butadiene	39	1.999	1.999	0.000	96	212588	50.0	60.3	
15 Bromomethane	94	2.309	2.309	0.000	87	61628	50.0	33.6	
16 Chloroethane	64	2.418	2.418	0.000	99	118134	50.0	55.4	
17 Dichlorofluoromethane	67	2.741	2.741	0.000	98	293575	50.0	54.4	
18 Trichlorofluoromethane	101	2.759	2.759	0.000	96	236887	50.0	49.7	M
20 Ethyl ether	59	3.118	3.118	0.000	94	167060	50.0	53.8	
21 Acrolein	56	3.307	3.307	0.000	98	107909	150.0	138.0	
22 1,1-Dichloroethene	96	3.416	3.416	0.000	96	141741	50.0	44.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.495	3.495	0.000	95	154163	50.0	43.8	
24 Acetone	43	3.526	3.526	0.000	99	196920	100.0	115.0	
25 Iodomethane	142	3.617	3.617	0.000	98	214360	50.0	42.6	
26 Carbon disulfide	76	3.714	3.714	0.000	99	360926	50.0	51.3	
28 3-Chloro-1-propene	76	4.000	4.000	0.000	91	93560	50.0	45.2	
30 Methyl acetate	43	4.043	4.043	0.000	99	326875	100.0	96.4	
31 Methylene Chloride	84	4.225	4.225	0.000	95	166969	50.0	41.5	
32 2-Methyl-2-propanol	59	4.511	4.511	0.000	92	175987	500.0	542.9	
33 Acrylonitrile	53	4.615	4.615	0.000	99	818046	500.0	496.2	
34 trans-1,2-Dichloroethene	96	4.645	4.645	0.000	98	153969	50.0	42.2	
35 Methyl tert-butyl ether	73	4.663	4.663	0.000	97	437548	50.0	44.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.059	5.059	0.000	97	225846	50.0	48.2	
37 1,1-Dichloroethane	63	5.272	5.272	0.000	96	293917	50.0	46.3	
38 Vinyl acetate	43	5.320	5.320	0.000	97	351607	50.0	54.4	
45 cis-1,2-Dichloroethene	96	6.020	6.020	0.000	83	176052	50.0	42.1	
44 2,2-Dichloropropane	97	6.014	6.014	0.000	63	40360	50.0	49.9	
46 2-Butanone (MEK)	43	6.038	6.038	0.000	100	238252	100.0	97.8	
49 Chlorobromomethane	128	6.300	6.300	0.000	93	75770	50.0	40.8	
51 Tetrahydrofuran	42	6.324	6.324	0.000	94	127409	100.0	89.8	
52 Chloroform	83	6.446	6.446	0.000	96	262021	50.0	41.3	
53 1,1,1-Trichloroethane	97	6.598	6.598	0.000	98	211016	50.0	44.0	
54 Cyclohexane	56	6.671	6.671	0.000	93	292211	50.0	49.3	
56 Carbon tetrachloride	117	6.774	6.774	0.000	82	172886	50.0	43.3	
55 1,1-Dichloropropene	75	6.792	6.792	0.000	94	211789	50.0	40.8	
57 Isobutyl alcohol	41	6.993	6.993	0.000	89	167025	1250.0	1282.2	
58 Benzene	78	7.005	7.005	0.000	97	665934	50.0	41.8	
59 1,2-Dichloroethane	62	7.078	7.078	0.000	97	227873	50.0	49.1	
62 n-Heptane	43	7.364	7.364	0.000	96	194886	50.0	52.0	
64 Trichloroethene	130	7.735	7.735	0.000	97	149620	50.0	37.3	
66 Methylcyclohexane	83	7.967	7.967	0.000	93	240535	50.0	39.7	
67 1,2-Dichloropropane	63	8.009	8.009	0.000	94	171953	50.0	46.4	
70 1,4-Dioxane	88	8.094	8.094	0.000	50	30898	1000.0	819.7	
68 Dibromomethane	93	8.088	8.088	0.000	94	91044	50.0	41.9	
71 Dichlorobromomethane	83	8.289	8.289	0.000	98	187871	50.0	44.1	
73 2-Chloroethyl vinyl ether	63	8.587	8.587	0.000	93	241610	100.0	90.6	
74 cis-1,3-Dichloropropene	75	8.733	8.733	0.000	93	237608	50.0	45.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.891	8.891	0.000	99	311699	100.0	88.6	
76 Toluene	91	9.062	9.062	0.000	98	678823	50.0	49.6	
77 trans-1,3-Dichloropropene	75	9.311	9.311	0.000	97	204388	50.0	54.9	
78 Ethyl methacrylate	69	9.366	9.366	0.000	90	205712	50.0	45.8	
79 1,1,2-Trichloroethane	97	9.506	9.506	0.000	91	144514	50.0	50.7	
80 Tetrachloroethene	164	9.579	9.579	0.000	95	104464	50.0	40.1	
81 1,3-Dichloropropane	76	9.658	9.658	0.000	95	250751	50.0	47.6	
82 2-Hexanone	43	9.719	9.719	0.000	98	261742	100.0	97.0	
84 Chlorodibromomethane	129	9.871	9.871	0.000	91	117667	50.0	48.9	
85 Ethylene Dibromide	107	9.986	9.986	0.000	99	132657	50.0	45.4	
86 3-Chlorobenzotrifluoride	180	10.443	10.443	0.000	86	228748	50.0	48.5	
87 Chlorobenzene	112	10.473	10.473	0.000	93	419897	50.0	47.2	
88 4-Chlorobenzotrifluoride	180	10.534	10.534	0.000	96	203528	50.0	46.8	
89 1,1,1,2-Tetrachloroethane	131	10.570	10.570	0.000	94	133233	50.0	47.1	
90 Ethylbenzene	106	10.576	10.576	0.000	99	221212	50.0	44.5	
91 m-Xylene & p-Xylene	106	10.704	10.704	0.000	0	264580	50.0	43.6	
92 o-Xylene	106	11.087	11.087	0.000	97	254601	50.0	44.0	
93 Styrene	104	11.106	11.106	0.000	95	429450	50.0	43.8	
94 Bromoform	173	11.288	11.288	0.000	92	70924	50.0	47.4	
96 2-Chlorobenzotrifluoride	180	11.355	11.355	0.000	92	214539	50.0	47.6	
97 Isopropylbenzene	105	11.452	11.452	0.000	97	627649	50.0	44.4	
99 1,1,2,2-Tetrachloroethane	83	11.769	11.769	0.000	83	210312	50.0	49.9	
100 Bromobenzene	156	11.769	11.769	0.000	96	152051	50.0	42.1	
102 trans-1,4-Dichloro-2-buten	53	11.799	11.799	0.000	76	68629	50.0	63.0	
101 1,2,3-Trichloropropane	110	11.817	11.817	0.000	85	67238	50.0	45.1	
103 N-Propylbenzene	120	11.866	11.866	0.000	99	174370	50.0	42.3	
104 2-Chlorotoluene	126	11.957	11.957	0.000	96	149298	50.0	41.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	12.024	12.024	0.000	97	197853	50.0	51.0	
106 1,3,5-Trimethylbenzene	105	12.055	12.055	0.000	96	492213	50.0	41.7	
107 4-Chlorotoluene	126	12.079	12.079	0.000	98	171884	50.0	44.6	
108 tert-Butylbenzene	119	12.365	12.365	0.000	93	405282	50.0	41.1	
110 1,2,4-Trimethylbenzene	105	12.426	12.426	0.000	98	514330	50.0	42.9	
111 1,2-dichloro-4-(trifluorom	214	12.468	12.468	0.000	93	122955	50.0	40.9	
112 sec-Butylbenzene	105	12.590	12.590	0.000	95	576703	50.0	41.9	
113 1,3-Dichlorobenzene	146	12.706	12.706	0.000	96	273968	50.0	42.5	
114 4-Isopropyltoluene	119	12.742	12.742	0.000	97	477014	50.0	41.6	
115 1,4-Dichlorobenzene	146	12.809	12.809	0.000	95	289412	50.0	43.7	
116 2,4-Dichloro-1-(trifluorom	214	12.839	12.839	0.000	92	111821	50.0	40.0	
118 2,5-Dichlorobenzotrifluori	214	12.882	12.882	0.000	0	125817	50.0	41.6	
120 n-Butylbenzene	91	13.156	13.156	0.000	98	406002	50.0	43.4	
121 1,2-Dichlorobenzene	146	13.168	13.168	0.000	94	271999	50.0	44.2	
122 1,2-Dibromo-3-Chloropropan	75	13.959	13.959	0.000	72	33688	50.0	49.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.099	14.099	0.000	0	596387	150.0	152.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.518	14.518	0.000	0	392235	100.0	97.3	
126 1,2,4-Trichlorobenzene	180	14.780	14.780	0.000	95	106168	50.0	37.7	
127 Hexachlorobutadiene	225	14.926	14.926	0.000	89	32568	50.0	31.6	
128 Naphthalene	128	15.048	15.048	0.000	97	389075	50.0	40.6	
129 1,2,3-Trichlorobenzene	180	15.273	15.273	0.000	95	89617	50.0	34.9	
131 2,4,5-Trichlorotoluene	159	16.045	16.045	0.000	0	43957	50.0	36.0	
130 2,3,6-Trichlorotoluene	159	16.137	16.137	0.000	93	44082	50.0	38.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	87.6	
S 134 1,2-Dichloroethene, Total	96				0		100.0	84.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	100.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00017	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00272	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00026	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D04.D

Injection Date: 16-Nov-2017 01:49:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: CCVIS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

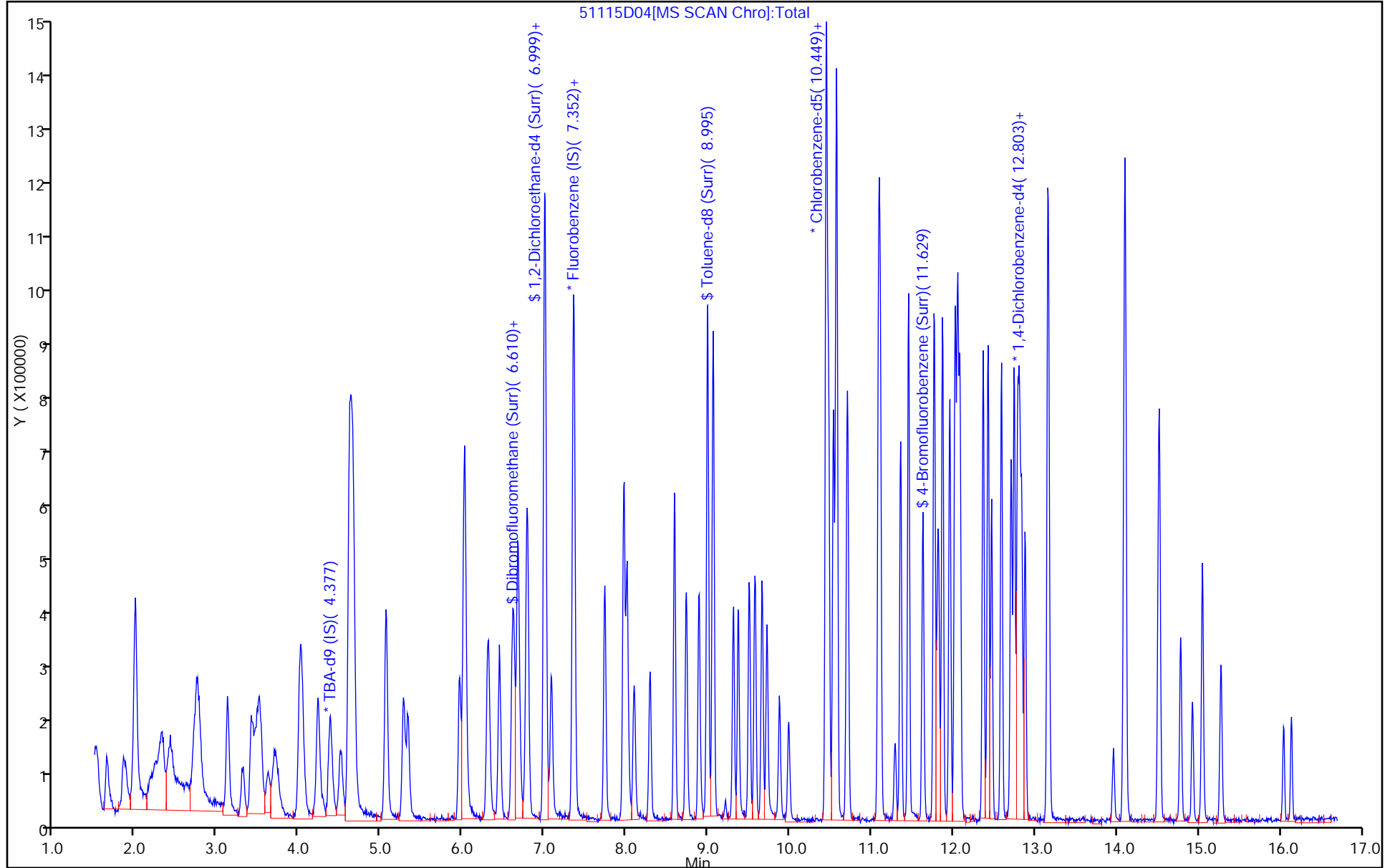
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh

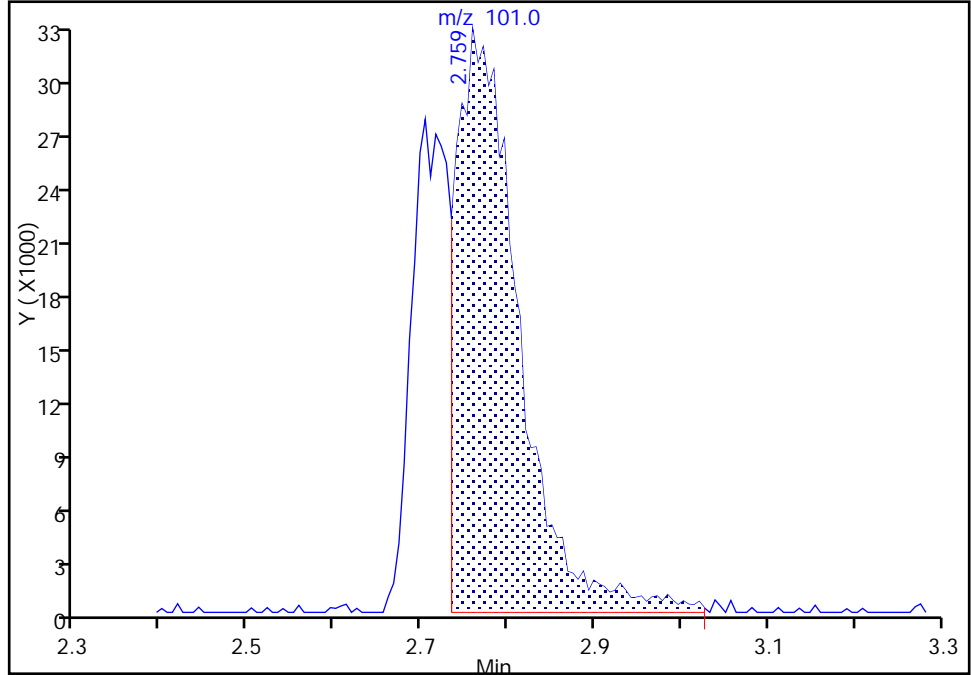
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D04.D
Injection Date: 16-Nov-2017 01:49:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

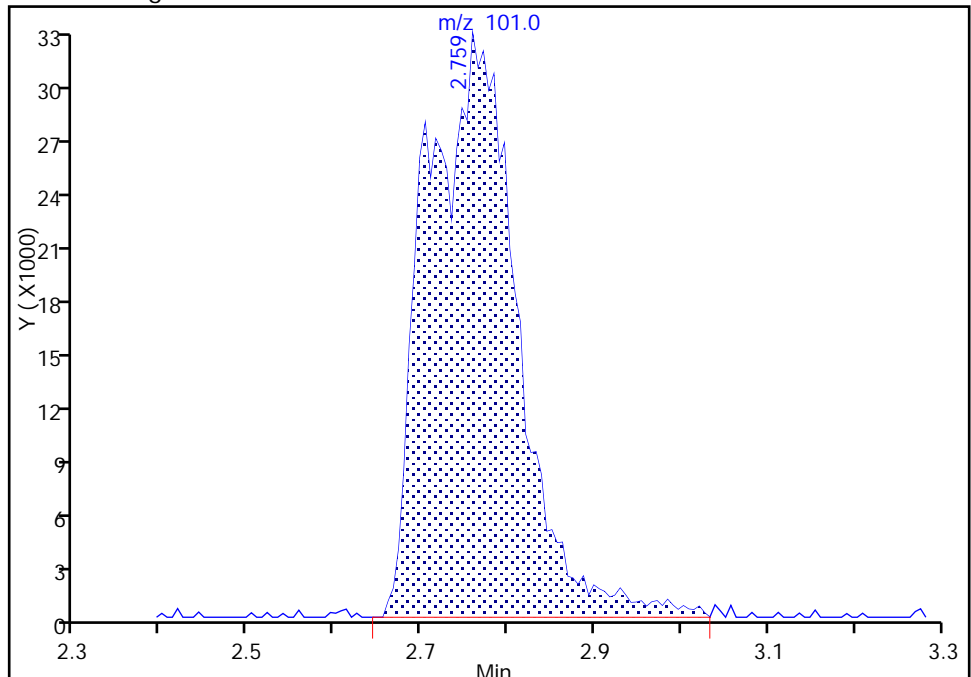
RT: 2.76
Area: 162693
Amount: 34.103049
Amount Units: ng

Processing Integration Results



RT: 2.76
Area: 236887
Amount: 49.655295
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 16-Nov-2017 02:14:04
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 08-Jun-2017 05:32:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0017092-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 09-Jun-2017 03:51:53 Calib Date: 08-Jun-2017 12:55:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D19.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: bungardf Date: 08-Jun-2017 06:34:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.403	8.403	0.000	0	57707	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

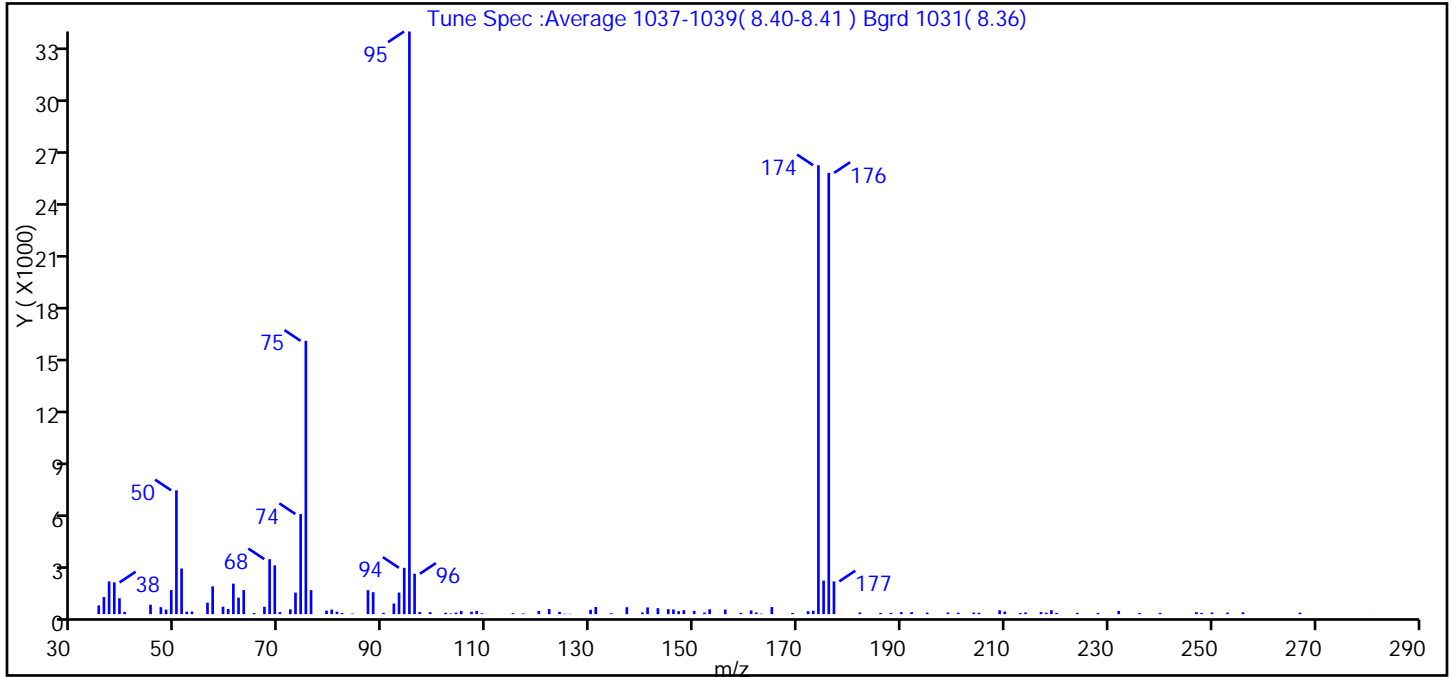
Reagents:

VOABFB25_00088 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D
 Injection Date: 08-Jun-2017 05:32:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.3
75	30 to 60% of m/z 95	46.9
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	77.0
175	5 to 9% of m/z 174	5.8 (7.5)
176	Greater than 95% but less than 101% of m/z 174	75.7 (98.3)
177	5 to 9% of m/z 176	5.6 (7.4)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D\MSVOA_LL_CHHP5.rsl\spec
 Injection Date: 08-Jun-2017 05:32:30
 Spectrum: Tune Spec :Average 1037-1039(8.40-8.41) Bgrd 1031(8.36)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 120

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	498	76.00	1377	126.00	20	182.00	97
36.00	981	79.00	203	130.00	253	186.00	71
37.00	1879	80.00	262	131.00	410	188.00	72
38.00	1824	81.00	143	134.00	52	190.00	116
39.00	913	82.00	63	137.00	399	192.00	116
40.00	130	84.00	33	138.00	1	195.00	87
45.00	543	87.00	1376	140.00	94	199.00	91
47.00	401	88.00	1262	141.00	385	201.00	83
48.00	263	90.00	75	143.00	343	204.00	91
49.00	1380	92.00	610	145.00	283	205.00	79
50.00	7111	93.00	1237	146.00	269	209.00	220
51.00	2620	94.00	2659	147.00	172	210.00	150
52.00	145	95.00	33456	148.00	231	213.00	69
53.00	151	96.00	2319	150.00	190	214.00	97
56.00	656	97.00	121	152.00	91	217.00	120
57.00	1595	99.00	115	153.00	279	218.00	82
59.00	432	102.00	79	155.00	4	219.00	224
60.00	295	103.00	36	156.00	262	220.00	72
61.00	1751	104.00	89	159.00	78	224.00	76
62.00	946	105.00	184	161.00	211	228.00	74
63.00	1386	107.00	143	162.00	96	232.00	182
65.00	70	108.00	182	163.00	30	236.00	70
67.00	423	109.00	48	165.00	408	240.00	74
68.00	3156	115.00	55	169.00	68	247.00	115
69.00	2802	116.00	1	172.00	165	248.00	74
70.00	118	117.00	40	173.00	200	250.00	92
72.00	275	120.00	179	174.00	25776	253.00	90
73.00	1238	122.00	293	175.00	1926	256.00	106
74.00	5749	124.00	128	176.00	25336	267.00	88
75.00	15694	125.00	25	177.00	1881	281.00	4

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170608-17092.b\50608D01.D

Injection Date: 08-Jun-2017 05:32:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

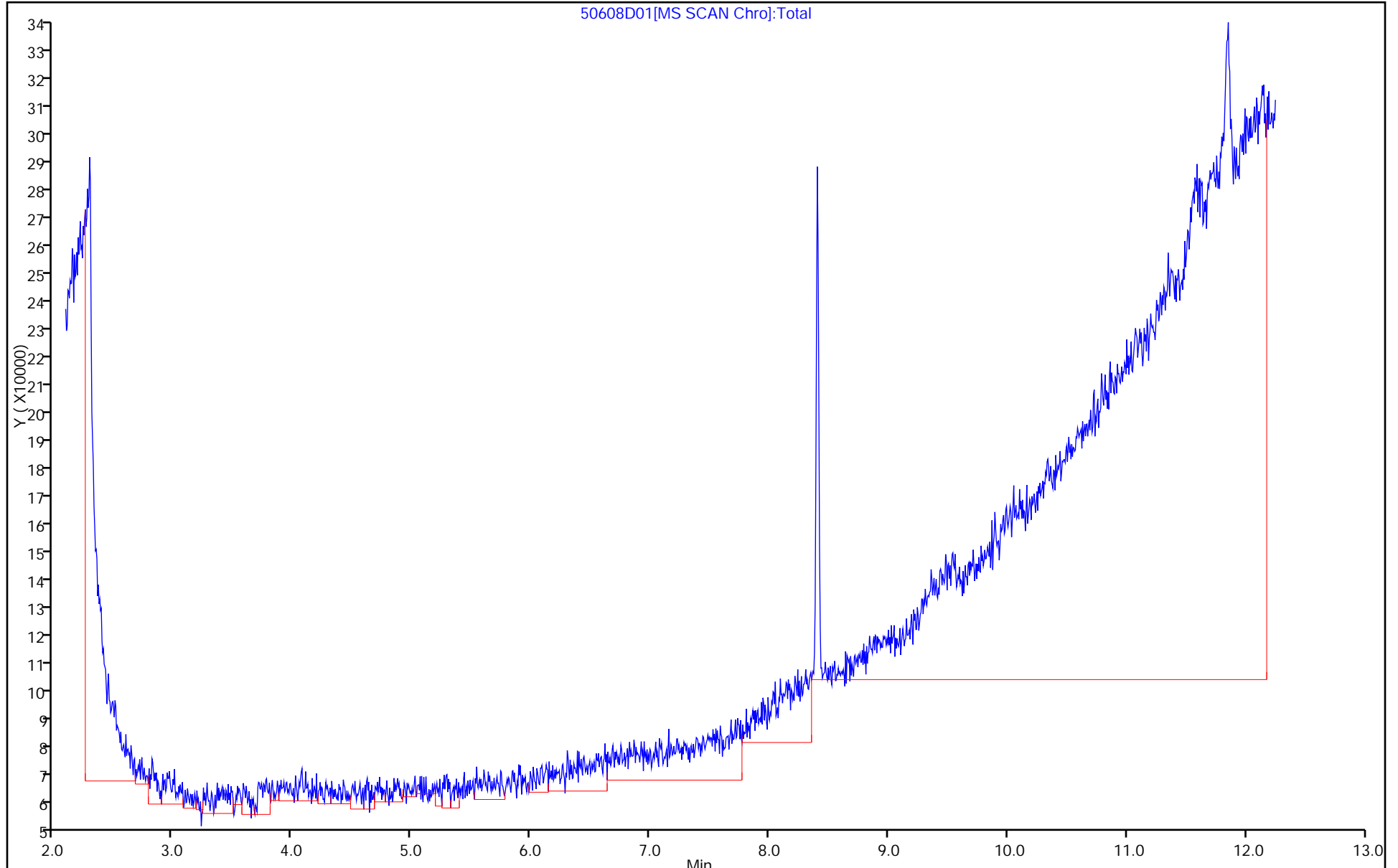
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 27-Jul-2017 00:22:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0017756-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 28-Jul-2017 01:04:43 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK029

First Level Reviewer: bungardf Date: 27-Jul-2017 05:09:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
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\$ 10 BFB	95	8.334	8.334	0.000	0	79656	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

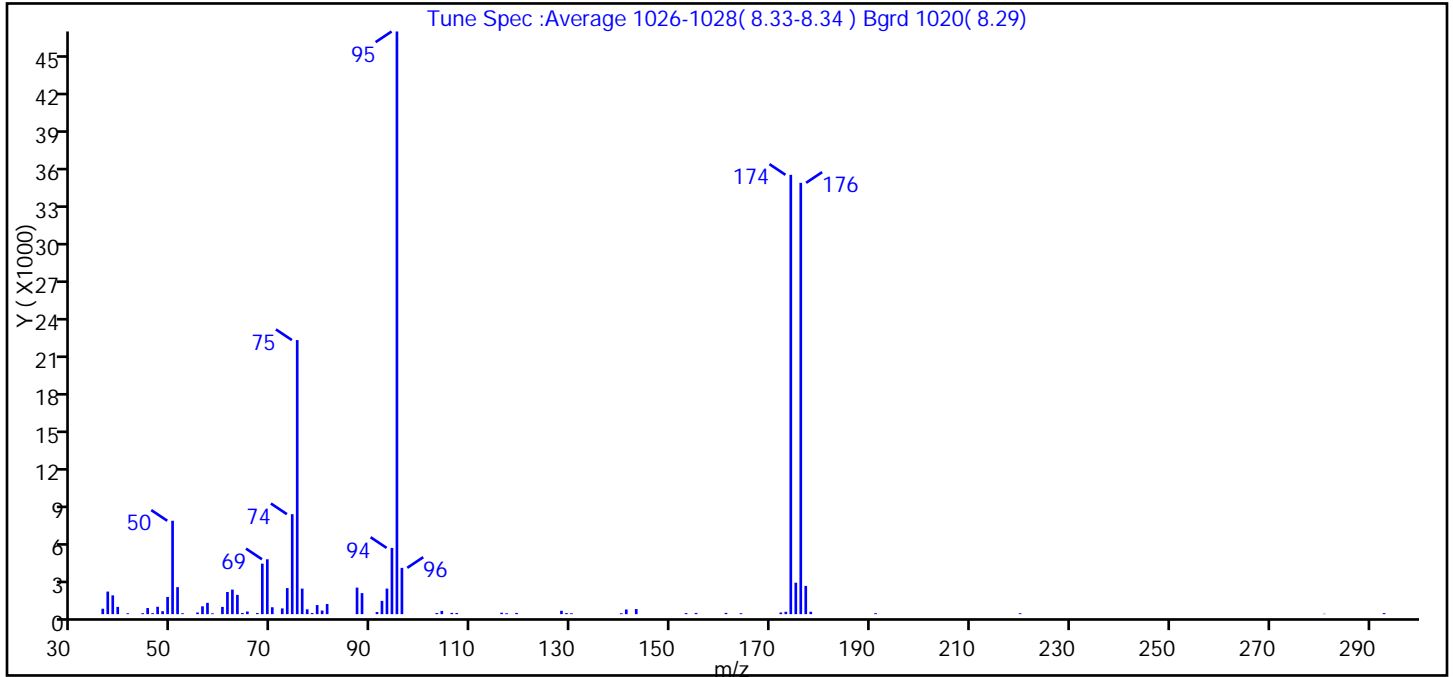
Reagents:

VOABFB25_00090 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D
 Injection Date: 27-Jul-2017 00:22:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.0
75	30 to 60% of m/z 95	47.0
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	75.4
175	5 to 9% of m/z 174	5.4 (7.2)
176	Greater than 95% but less than 101% of m/z 174	74.0 (98.2)
177	5 to 9% of m/z 176	4.8 (6.5)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D\MSVOA_LL_CHHP5.rsl\spec
 Injection Date: 27-Jul-2017 00:22:30
 Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1020(8.29)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	433	61.00	1769	87.00	2123	141.00	374
37.00	1806	62.00	1963	88.00	1682	143.00	408
38.00	1500	63.00	1542	91.00	169	153.00	84
39.00	582	64.00	92	92.00	1061	155.00	97
41.00	70	65.00	209	93.00	2045	161.00	102
44.00	76	67.00	88	94.00	5297	164.00	73
45.00	487	68.00	4038	95.00	46600	172.00	132
46.00	79	69.00	4388	96.00	3703	173.00	191
47.00	590	70.00	551	103.00	90	174.00	35136
48.00	235	72.00	459	104.00	258	175.00	2515
49.00	1375	73.00	2085	106.00	102	176.00	34496
50.00	7469	74.00	7996	107.00	90	177.00	2259
51.00	2160	75.00	21920	116.00	116	178.00	192
52.00	70	76.00	2042	117.00	73	191.00	80
55.00	130	77.00	386	119.00	97	220.00	71
56.00	624	78.00	89	128.00	269	281.00	30
57.00	904	79.00	726	129.00	86	293.00	87
58.00	67	80.00	290	130.00	72		
60.00	579	81.00	809	140.00	72		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D01.D

Injection Date: 27-Jul-2017 00:22:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

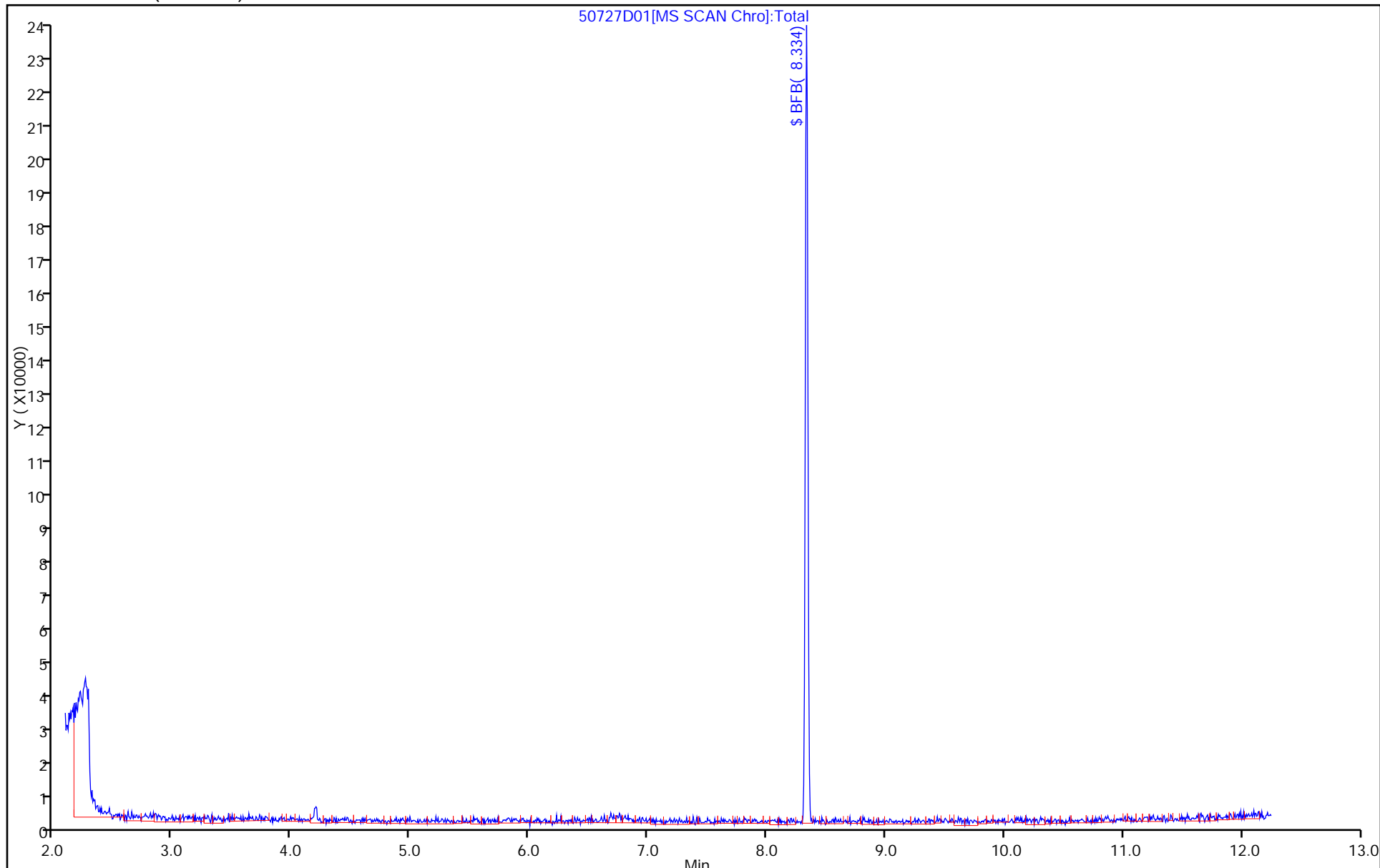
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 12-Nov-2017 15:08:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:05 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.341	8.341	0.000	0	95065	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

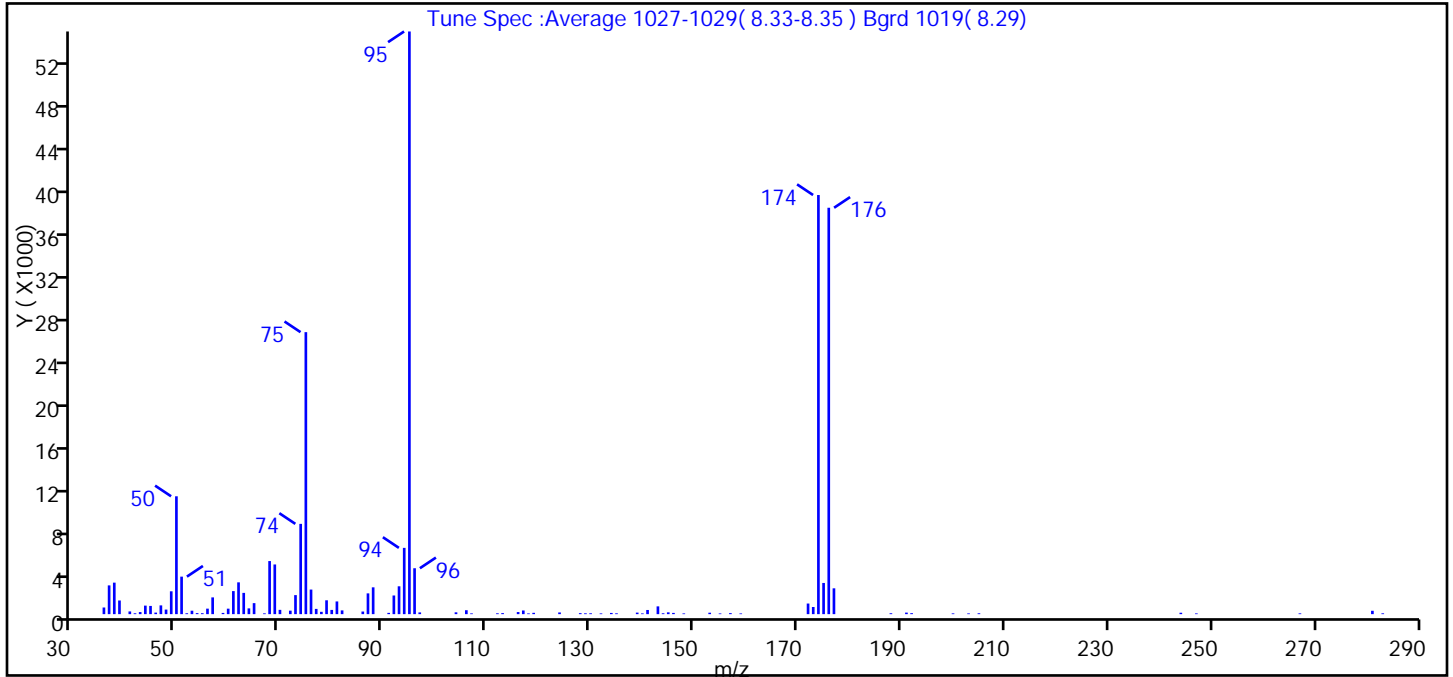
Reagents:

VOABFB25_00095 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D01.D
 Injection Date: 12-Nov-2017 15:08:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.2
75	30 to 60% of m/z 95	48.4
96	5 to 9% of m/z 95	7.9
173	Less than 2% of m/z 174	1.2 (1.7)
174	50 to 120% of m/z 95	71.9
175	5 to 9% of m/z 174	5.4 (7.4)
176	Greater than 95% but less than 101% of m/z 174	69.7 (97.0)
177	5 to 9% of m/z 176	4.4 (6.4)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D01.D\MSVOA_LL_CHHP5.rsl\spec
 Injection Date: 12-Nov-2017 15:08:30
 Spectrum: Tune Spec :Average 1027-1029(8.33-8.35) Bgrd 1019(8.29)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 98

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	626	63.00	2003	95.00	54896	146.00	117
37.00	2709	64.00	543	96.00	4325	148.00	69
38.00	2968	65.00	1037	97.00	163	153.00	135
39.00	1287	67.00	75	104.00	172	155.00	67
41.00	255	68.00	5001	106.00	370	157.00	96
42.00	82	69.00	4681	107.00	72	159.00	67
43.00	195	70.00	404	112.00	80	172.00	999
44.00	803	72.00	328	113.00	98	173.00	673
45.00	774	73.00	1793	116.00	197	174.00	39488
46.00	145	74.00	8505	117.00	345	175.00	2938
47.00	825	75.00	26568	118.00	69	176.00	38288
48.00	431	76.00	2316	119.00	125	177.00	2433
49.00	2152	77.00	494	124.00	160	188.00	85
50.00	11104	78.00	219	128.00	94	191.00	146
51.00	3534	79.00	1305	129.00	79	192.00	93
52.00	82	80.00	398	130.00	82	200.00	72
53.00	323	81.00	1197	132.00	70	203.00	70
54.00	97	82.00	354	134.00	114	205.00	83
55.00	88	86.00	246	135.00	78	244.00	132
56.00	518	87.00	1957	139.00	145	247.00	70
57.00	1578	88.00	2526	140.00	70	267.00	73
59.00	116	91.00	120	141.00	392	281.00	317
60.00	516	92.00	1758	143.00	733	283.00	78
61.00	2171	93.00	2624	144.00	83		
62.00	2996	94.00	6244	145.00	171		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D01.D

Injection Date: 12-Nov-2017 15:08:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

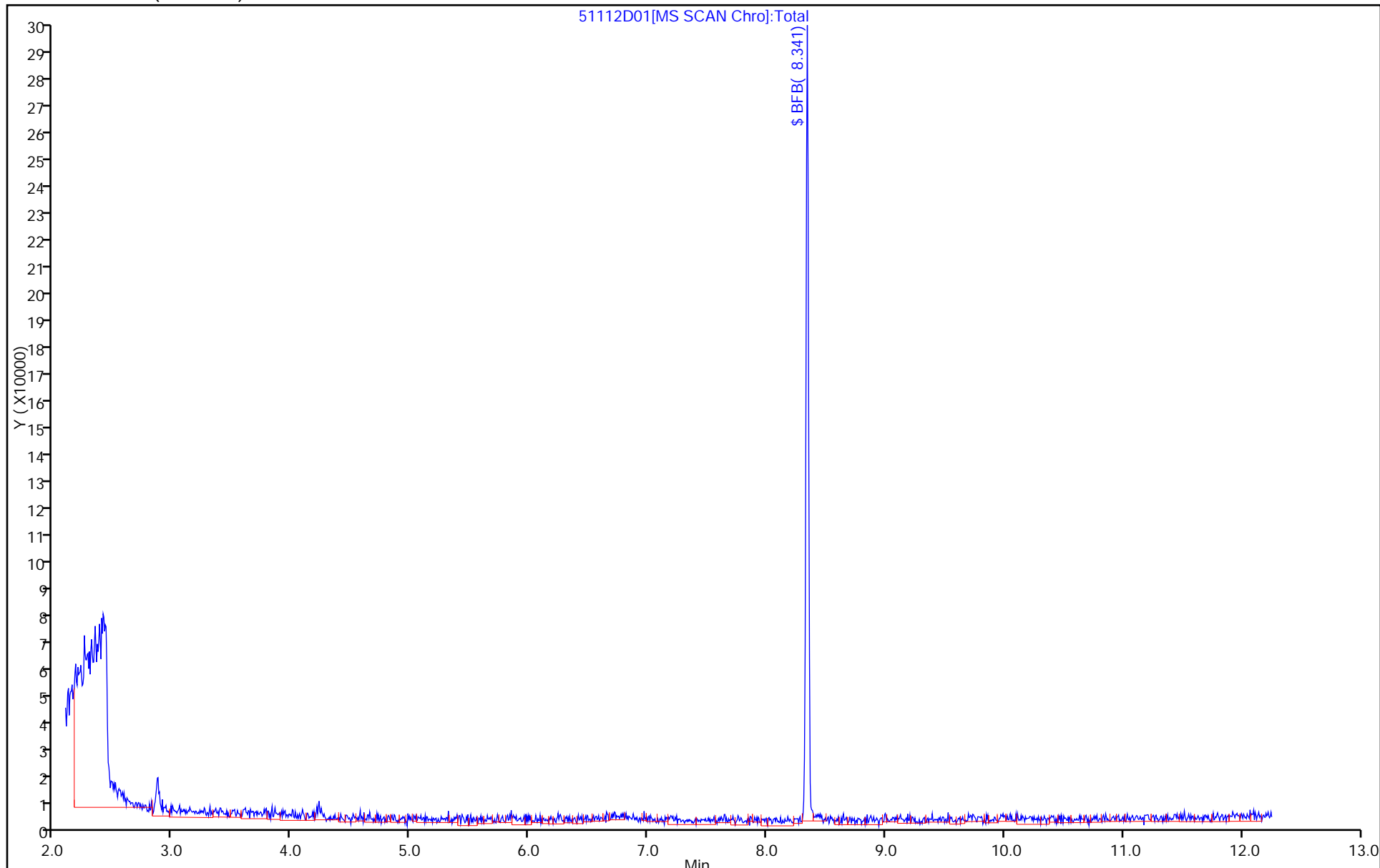
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 13-Nov-2017 22:44:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:12 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.339	8.339	0.000	0	70016	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

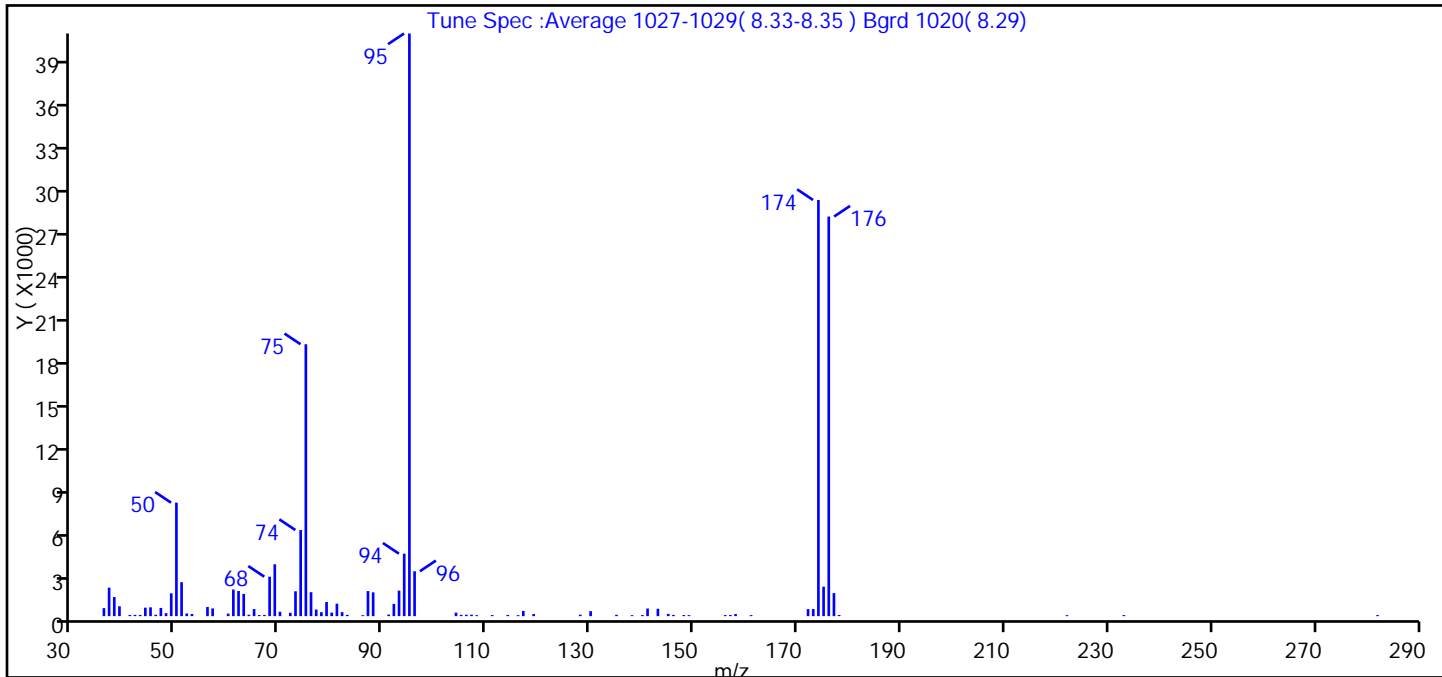
Reagents:

VOABFB25_00095 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D01.D
 Injection Date: 13-Nov-2017 22:44:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	19.5
75	30 to 60% of m/z 95	46.7
96	5 to 9% of m/z 95	7.7
173	Less than 2% of m/z 174	1.2 (1.7)
174	50 to 120% of m/z 95	71.4
175	5 to 9% of m/z 174	5.1 (7.1)
176	Greater than 95% but less than 101% of m/z 174	68.6 (96.0)
177	5 to 9% of m/z 176	4.0 (5.8)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D01.D\MSVOA_LL_CHHP5.rsl\spec
 Injection Date: 13-Nov-2017 22:44:30
 Spectrum: Tune Spec :Average 1027-1029(8.33-8.35) Bgrd 1020(8.29)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	563	63.00	1554	88.00	1667	141.00	532
37.00	1994	64.00	96	91.00	110	143.00	516
38.00	1337	65.00	495	92.00	858	145.00	158
39.00	691	66.00	78	93.00	1786	146.00	86
41.00	79	67.00	86	94.00	4377	148.00	77
42.00	90	68.00	2763	95.00	40816	149.00	72
43.00	83	69.00	3633	96.00	3145	156.00	74
44.00	594	70.00	309	104.00	248	157.00	77
45.00	617	72.00	231	105.00	94	158.00	146
46.00	96	73.00	1742	106.00	99	161.00	72
47.00	574	74.00	6033	107.00	103	172.00	493
48.00	207	75.00	19048	108.00	67	173.00	499
49.00	1601	76.00	1676	111.00	76	174.00	29152
50.00	7948	77.00	464	114.00	87	175.00	2063
51.00	2378	78.00	276	116.00	69	176.00	27992
52.00	186	79.00	989	117.00	363	177.00	1613
53.00	151	80.00	248	119.00	147	178.00	82
56.00	643	81.00	871	128.00	103	222.00	69
57.00	541	82.00	279	130.00	349	233.00	74
60.00	180	83.00	90	135.00	94	282.00	74
61.00	1864	86.00	67	138.00	69		
62.00	1761	87.00	1755	140.00	76		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D01.D

Injection Date: 13-Nov-2017 22:44:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

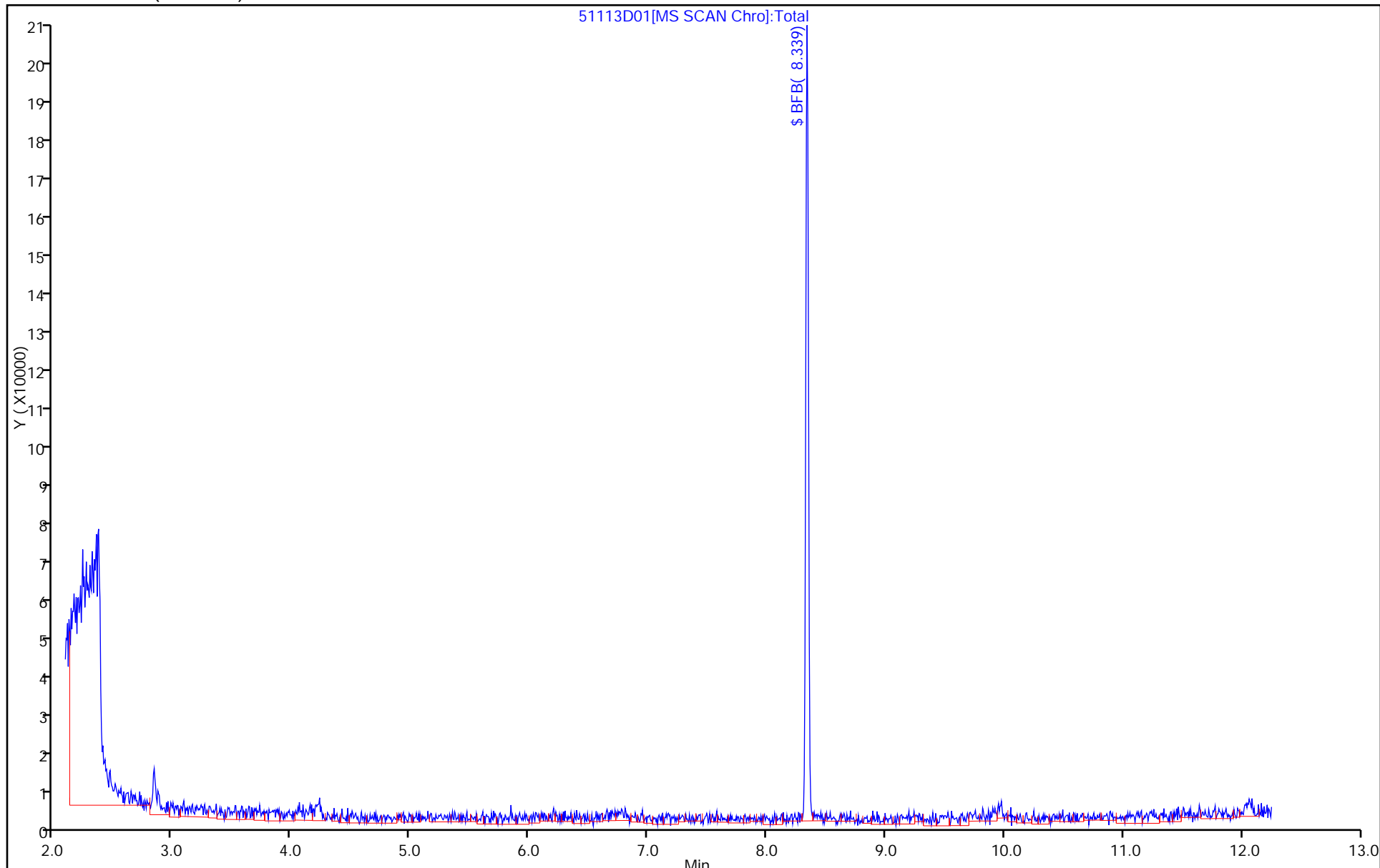
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 16-Nov-2017 00:22:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-001
 Misc. Info.: BFB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:43 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
\$ 10 BFB	95	8.337	8.337	0.000	0	108592	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

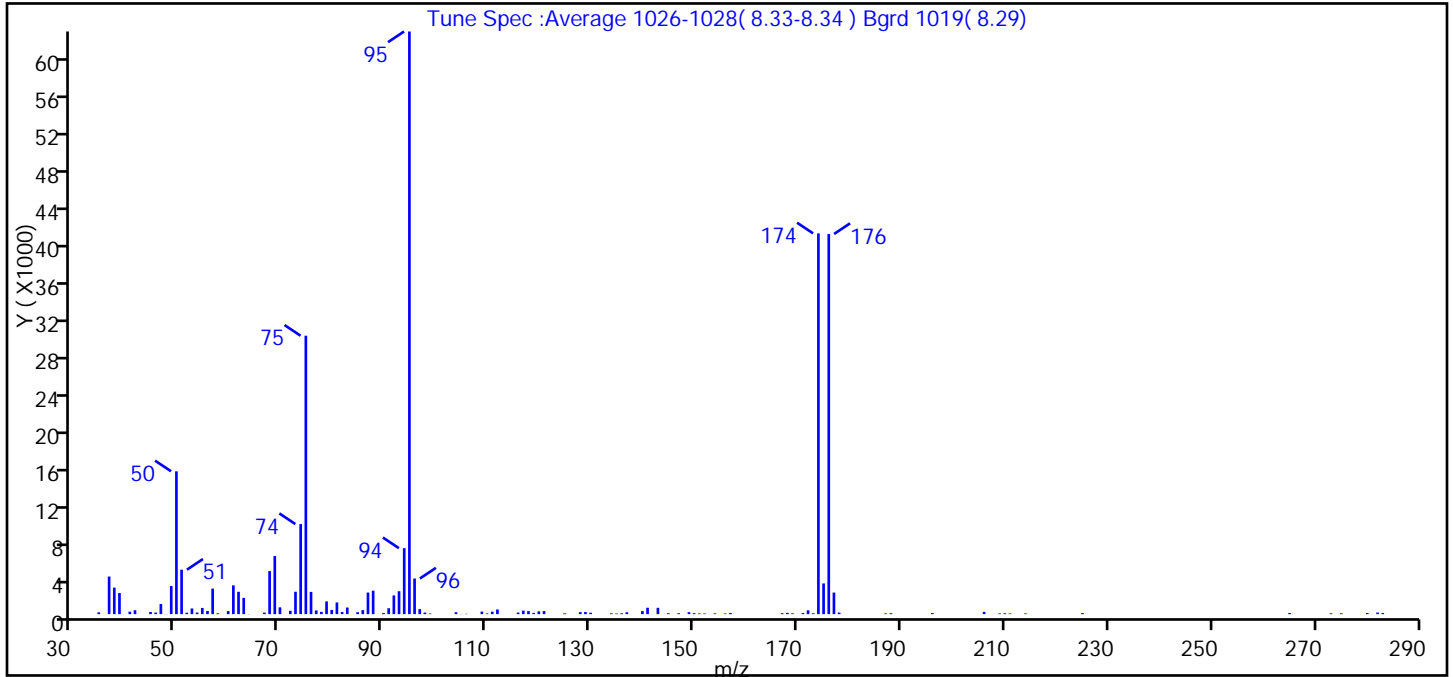
Reagents:

VOABFB25_00095 Amount Added: 1.00 Units: uL

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D01.D
 Injection Date: 16-Nov-2017 00:22:30 Instrument ID: CHHP5
 Lims ID: BFB
 Client ID:
 Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 5.0 mL Dil. Factor: 1.0000
 Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
 Tune Method: BFB Method 8260

\$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	24.5
75	30 to 60% of m/z 95	47.8
96	5 to 9% of m/z 95	6.1
173	Less than 2% of m/z 174	0.2 (0.2)
174	50 to 120% of m/z 95	65.3
175	5 to 9% of m/z 174	5.3 (8.1)
176	Greater than 95% but less than 101% of m/z 174	65.2 (99.8)
177	5 to 9% of m/z 176	3.7 (5.7)

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D01.D\MSVOA_LL_CHHP5.rsl\spec
 Injection Date: 16-Nov-2017 00:22:30
 Spectrum: Tune Spec :Average 1026-1028(8.33-8.34) Bgrd 1019(8.29)
 Base Peak: 95.00
 Minimum % Base Peak: 0
 Number of Points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	191	72.00	361	109.00	274	157.00	128
37.00	4038	73.00	2405	110.00	73	167.00	104
38.00	2848	74.00	9669	111.00	268	168.00	137
39.00	2265	75.00	29888	112.00	501	169.00	85
41.00	265	76.00	2388	116.00	170	171.00	116
42.00	420	77.00	397	117.00	377	172.00	410
45.00	232	78.00	245	118.00	326	173.00	96
46.00	172	79.00	1373	119.00	135	174.00	40872
47.00	1089	80.00	455	120.00	295	175.00	3297
48.00	14	81.00	1255	121.00	326	176.00	40808
49.00	3015	82.00	232	125.00	91	177.00	2315
50.00	15333	83.00	712	128.00	217	178.00	171
51.00	4771	85.00	209	129.00	228	187.00	79
52.00	151	86.00	432	130.00	152	188.00	102
53.00	609	87.00	2317	134.00	88	196.00	118
54.00	173	88.00	2520	135.00	69	206.00	242
55.00	665	90.00	122	136.00	94	209.00	78
56.00	341	91.00	634	137.00	198	210.00	93
57.00	2743	92.00	2009	140.00	326	211.00	69
58.00	91	93.00	2458	141.00	689	214.00	76
60.00	324	94.00	7081	143.00	679	225.00	119
61.00	3085	95.00	62544	145.00	98	265.00	129
62.00	2399	96.00	3824	147.00	97	273.00	89
63.00	1746	97.00	539	149.00	210	275.00	92
64.00	16	98.00	168	150.00	104	280.00	121
67.00	164	99.00	68	151.00	73	282.00	171
68.00	4623	104.00	205	152.00	69	283.00	128
69.00	6236	105.00	15	154.00	81		
70.00	730	106.00	37	156.00	67		

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D01.D

Injection Date: 16-Nov-2017 00:22:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 5.0 mL

Dil. Factor: 1.0000

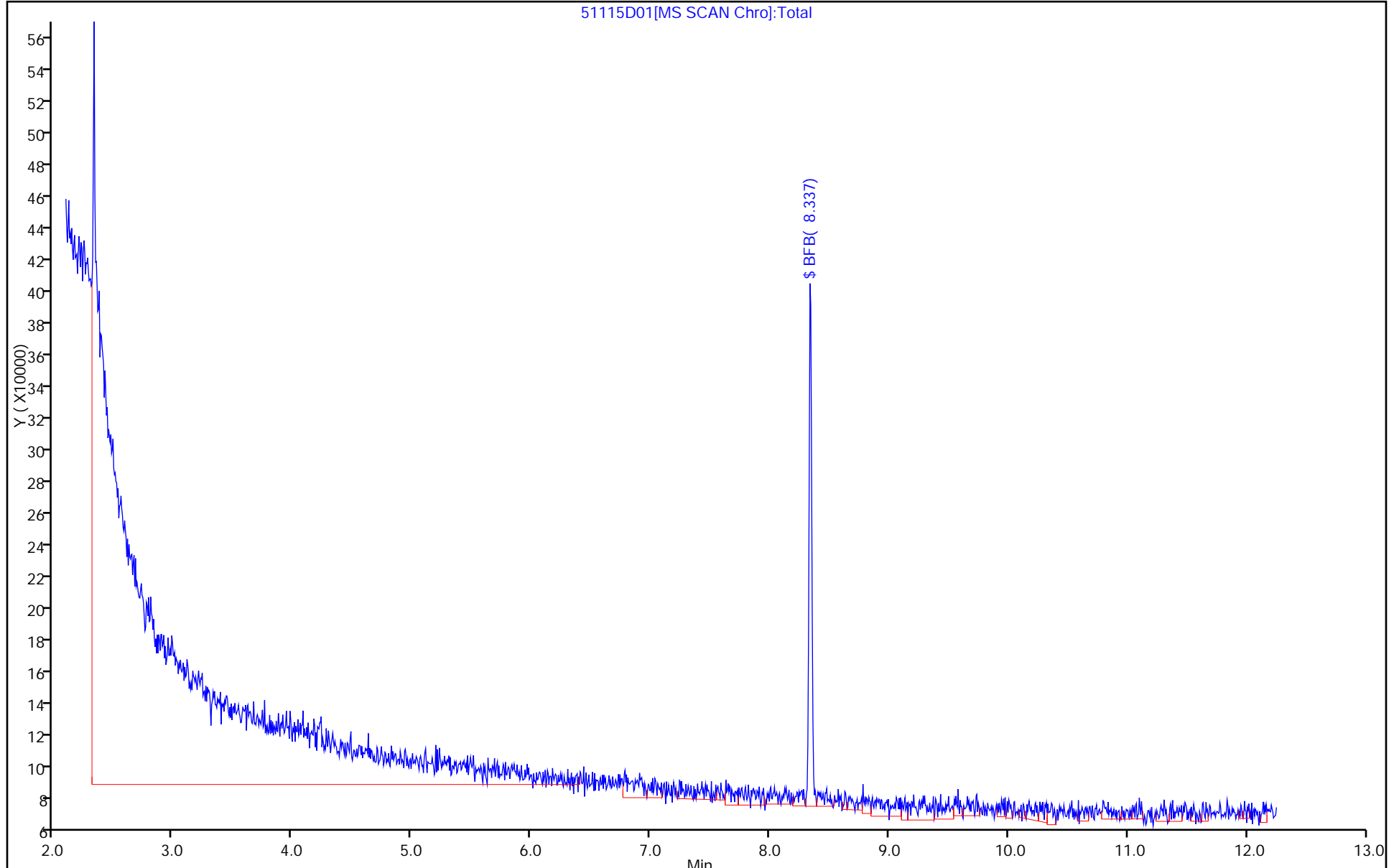
ALS Bottle#: 1

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)

51115D01[MS SCAN Chro]:Total



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228704/6
 Matrix: Water Lab File ID: 51112D06.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 19:06
 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.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228704/6
 Matrix: Water Lab File ID: 51112D06.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 19:06
 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.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		65-121
2037-26-5	Toluene-d8 (Surr)	93		73-120
460-00-4	4-Bromofluorobenzene (Surr)	86		80-120
1868-53-7	Dibromofluoromethane (Surr)	108		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 12-Nov-2017 19:06:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-006
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf

Date: 12-Nov-2017 19:27:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.370	4.369	0.001	0	236520	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.343	0.001	98	500950	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.432	0.001	86	117961	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.775	12.774	0.001	97	158689	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.626	6.623	0.003	91	129654	50.0	53.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.988	0.003	0	161936	50.0	55.1	
\$ 7 Toluene-d8 (Surr)	98	8.986	8.983	0.003	94	437781	50.0	46.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.619	11.616	0.003	83	144953	50.0	42.8	
11 Dichlorodifluoromethane	85		1.685					ND	
12 Chloromethane	50		1.886					ND	
13 Vinyl chloride	62		2.014					ND	
14 Butadiene	39		2.020					ND	
15 Bromomethane	94		2.366					ND	
16 Chloroethane	64		2.458					ND	
17 Dichlorofluoromethane	67		2.768					ND	
18 Trichlorofluoromethane	101		2.786					ND	
19 Ethanol	45	2.795	2.821	-0.026	1	125			NC
20 Ethyl ether	59		3.121					ND	
21 Acrolein	56		3.315					ND	
22 1,1-Dichloroethene	96		3.425					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.510					ND	
24 Acetone	43		3.540					ND	
25 Iodomethane	142		3.613					ND	
26 Carbon disulfide	76		3.704					ND	
27 Isopropyl alcohol	45		3.834					ND	
29 Acetonitrile	41		3.980					ND	
28 3-Chloro-1-propene	76		4.002					ND	
30 Methyl acetate	43		4.039					ND	
31 Methylene Chloride	84		4.227					ND	
32 2-Methyl-2-propanol	59		4.513					ND	
33 Acrylonitrile	53		4.617					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		4.647					ND	
35 Methyl tert-butyl ether	73		4.659					ND	
36 Hexane	57		5.061					ND	
37 1,1-Dichloroethane	63		5.267					ND	
38 Vinyl acetate	43		5.322					ND	
39 2-Chloro-1,3-butadiene	53		5.373					ND	
41 Isopropyl ether	45		5.373					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.841					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
45 cis-1,2-Dichloroethene	96		6.009					ND	
44 2,2-Dichloropropane	97		6.009					ND	
46 2-Butanone (MEK)	43		6.027					ND	
48 Ethyl acetate	43		6.102					ND	
47 Propionitrile	54		6.102					ND	
50 Methacrylonitrile	41		6.279					ND	
49 Chlorobromomethane	128		6.295					ND	
51 Tetrahydrofuran	42		6.307					ND	
52 Chloroform	83	6.444	6.441	0.003	40	3507		0.7228	
53 1,1,1-Trichloroethane	97		6.593					ND	
54 Cyclohexane	56		6.666					ND	
56 Carbon tetrachloride	117		6.769					ND	
55 1,1-Dichloropropene	75		6.788					ND	
57 Isobutyl alcohol	41		6.988					ND	
58 Benzene	78		7.000					ND	
59 1,2-Dichloroethane	62		7.073					ND	
151 Isooctane	57		7.148					ND	
61 Tert-amyl methyl ether	73		7.173					ND	
62 n-Heptane	43		7.353					ND	
63 n-Butanol	56		7.690					ND	
64 Trichloroethene	130		7.724					ND	
65 Ethyl acrylate	55		7.848					ND	
66 Methylcyclohexane	83		7.961					ND	
67 1,2-Dichloropropane	63		7.998					ND	
70 1,4-Dioxane	88		8.077					ND	
69 Methyl methacrylate	69		8.085					ND	
68 Dibromomethane	93		8.083					ND	
71 Dichlorobromomethane	83		8.278					ND	
73 2-Chloroethyl vinyl ether	63		8.582					ND	
74 cis-1,3-Dichloropropene	75		8.721					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.880					ND	
76 Toluene	91		9.050					ND	
77 trans-1,3-Dichloropropene	75		9.299					ND	
78 Ethyl methacrylate	69		9.354					ND	
79 1,1,2-Trichloroethane	97		9.488					ND	
80 Tetrachloroethene	164		9.561					ND	
81 1,3-Dichloropropane	76		9.652					ND	
82 2-Hexanone	43		9.707					ND	
83 n-Butyl acetate	43		9.830					ND	
84 Chlorodibromomethane	129		9.859					ND	
85 Ethylene Dibromide	107		9.974					ND	
86 3-Chlorobenzotrifluoride	180		10.436					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.461					ND	
88 4-Chlorobenzotrifluoride	180		10.522					ND	
89 1,1,1,2-Tetrachloroethane	131		10.552					ND	
90 Ethylbenzene	106		10.558					ND	
91 m-Xylene & p-Xylene	106		10.692					ND	
92 o-Xylene	106		11.075					ND	
93 Styrene	104		11.093					ND	
94 Bromoform	173		11.276					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.343					ND	
97 Isopropylbenzene	105		11.440					ND	
98 Cyclohexanone	55		11.527					ND	
99 1,1,2,2-Tetrachloroethane	83		11.750					ND	
100 Bromobenzene	156		11.756					ND	
102 trans-1,4-Dichloro-2-buten	53		11.786					ND	
101 1,2,3-Trichloropropane	110		11.805					ND	
103 N-Propylbenzene	120		11.853					ND	
104 2-Chlorotoluene	126		11.939					ND	
105 3-Chlorotoluene	126		12.011					ND	
106 1,3,5-Trimethylbenzene	105		12.036					ND	
107 4-Chlorotoluene	126		12.066					ND	
108 tert-Butylbenzene	119		12.352					ND	
110 1,2,4-Trimethylbenzene	105		12.413					ND	
111 1,2-dichloro-4-(trifluorom	214		12.455					ND	
112 sec-Butylbenzene	105		12.577					ND	
113 1,3-Dichlorobenzene	146		12.693					ND	
114 4-Isopropyltoluene	119		12.729					ND	
115 1,4-Dichlorobenzene	146		12.796					ND	
117 1,2,3-Trimethylbenzene	105		12.822					ND	
116 2,4-Dichloro-1-(triflourom	214		12.826					ND	
118 2,5-Dichlorobenzotrifluori	214		12.863					ND	
119 Benzyl chloride	91		12.913					ND	
120 n-Butylbenzene	91		13.143					ND	
121 1,2-Dichlorobenzene	146		13.155					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.945					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.085					ND	
124 1,3,5-Trichlorobenzene	180		14.130					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.505					ND	
126 1,2,4-Trichlorobenzene	180		14.766					ND	
127 Hexachlorobutadiene	225		14.906					ND	
128 Naphthalene	128		15.034					ND	
129 1,2,3-Trichlorobenzene	180		15.259					ND	
131 2,4,5-Trichlorotoluene	159		16.025					ND	
130 2,3,6-Trichlorotoluene	159		16.122					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
155 1-Chloro-1-fluoroethane TI	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 60 Tert-amyl methyl ether (TI	73		7.262					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 156 2-ethoxy-2-methyl butane T	59		0.000						ND
T 157 Ethanol TIC	45		0.000						ND
T 136 Mesityl oxide TIC	83		0.000						ND
T 138 Methyl n-amyl ketone TIC	43		0.000						ND
T 137 Tetrahydrofuran TIC	42		6.253						ND
T 153 1,2 Epoxybutane TIC	42		6.253						ND

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D06.D

Injection Date: 12-Nov-2017 19:06:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

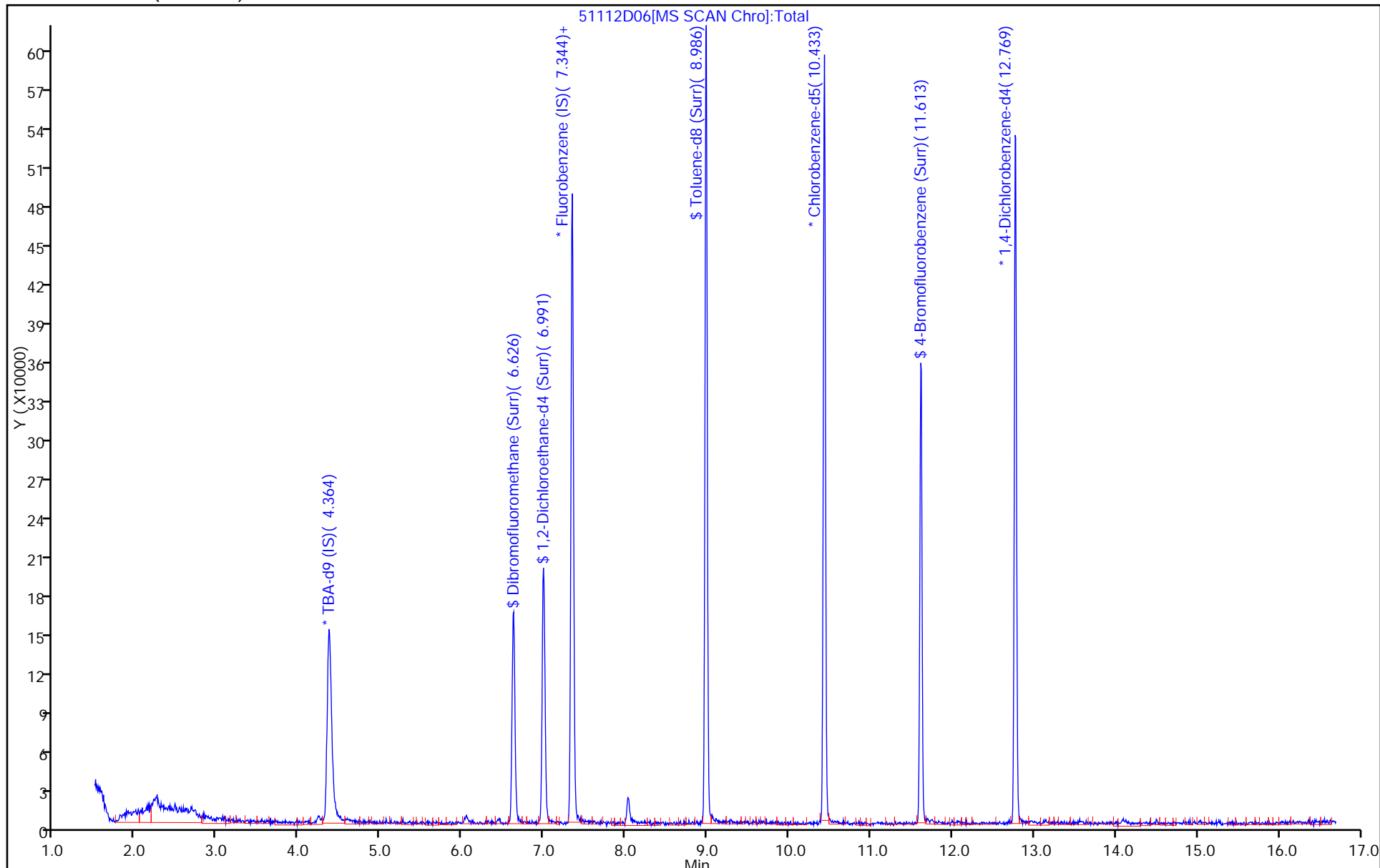
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 12-Nov-2017 19:06:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-006
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf

Date: 12-Nov-2017 19:27:11

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	53.8	107.58
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.1	110.17
\$ 7 Toluene-d8 (Surr)	50.0	46.6	93.26
\$ 8 4-Bromofluorobenzene (Surr)	50.0	42.8	85.50

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228816/6
 Matrix: Water Lab File ID: 51113D06.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 01:58
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-228816/6
 Matrix: Water Lab File ID: 51113D06.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 01:58
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		65-121
2037-26-5	Toluene-d8 (Surr)	97		73-120
460-00-4	4-Bromofluorobenzene (Surr)	84		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 14-Nov-2017 01:58:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-006
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:34 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf Date: 14-Nov-2017 02:20:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.366	4.366	0.000	0	248439	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.346	7.340	0.006	98	550641	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.429	10.429	0.000	87	124434	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.770	12.771	-0.001	97	161207	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.622	6.614	0.008	93	135470	50.0	51.1	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.993	6.984	0.009	0	179715	50.0	55.6	
\$ 7 Toluene-d8 (Surr)	98	8.982	8.985	-0.003	94	478492	50.0	48.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.615	11.612	0.003	84	149889	50.0	41.9	
11 Dichlorodifluoromethane	85		1.675					ND	
12 Chloromethane	50		1.894					ND	
13 Vinyl chloride	62		2.010					ND	
14 Butadiene	39		2.016					ND	
15 Bromomethane	94		2.338					ND	
16 Chloroethane	64		2.448					ND	
17 Dichlorofluoromethane	67		2.758					ND	
18 Trichlorofluoromethane	101		2.794					ND	
19 Ethanol	45	2.773	2.821	-0.048	45	238			NC
20 Ethyl ether	59		3.129					ND	
21 Acrolein	56		3.317					ND	
22 1,1-Dichloroethene	96		3.415					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.512					ND	
24 Acetone	43		3.530					ND	
25 Iodomethane	142		3.622					ND	
26 Carbon disulfide	76		3.701					ND	
27 Isopropyl alcohol	45		3.819					ND	
29 Acetonitrile	41		3.971					ND	
28 3-Chloro-1-propene	76		3.999					ND	
30 Methyl acetate	43		4.047					ND	
31 Methylene Chloride	84		4.224					ND	
32 2-Methyl-2-propanol	59		4.509					ND	
33 Acrylonitrile	53		4.613					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		4.643					ND	
35 Methyl tert-butyl ether	73		4.661					ND	
36 Hexane	57		5.057					ND	
37 1,1-Dichloroethane	63		5.270					ND	
38 Vinyl acetate	43		5.324					ND	
39 2-Chloro-1,3-butadiene	53		5.370					ND	
41 Isopropyl ether	45		5.370					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.838					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	97		6.011					ND	
45 cis-1,2-Dichloroethene	96		6.011					ND	
46 2-Butanone (MEK)	43		6.030					ND	
48 Ethyl acetate	43		6.100					ND	
47 Propionitrile	54		6.106					ND	
50 Methacrylonitrile	41		6.276					ND	
49 Chlorobromomethane	128		6.297					ND	
51 Tetrahydrofuran	42		6.309					ND	
52 Chloroform	83	6.452	6.443	0.009	40	3961		0.7427	
53 1,1,1-Trichloroethane	97		6.595					ND	
54 Cyclohexane	56		6.662					ND	
56 Carbon tetrachloride	117		6.766					ND	
55 1,1-Dichloropropene	75		6.784					ND	
57 Isobutyl alcohol	41		6.984					ND	
58 Benzene	78		6.997					ND	
59 1,2-Dichloroethane	62		7.076					ND	
151 Isooctane	57		7.152					ND	
61 Tert-amyl methyl ether	73		7.176					ND	
62 n-Heptane	43		7.355					ND	
63 n-Butanol	56		7.693					ND	
64 Trichloroethene	130		7.726					ND	
65 Ethyl acrylate	55		7.845					ND	
66 Methylcyclohexane	83		7.958					ND	
67 1,2-Dichloropropane	63		8.000					ND	
69 Methyl methacrylate	69		8.082					ND	
70 1,4-Dioxane	88		8.085					ND	
68 Dibromomethane	93		8.091					ND	
71 Dichlorobromomethane	83		8.280					ND	
73 2-Chloroethyl vinyl ether	63		8.578					ND	
74 cis-1,3-Dichloropropene	75		8.718					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.876					ND	
76 Toluene	91		9.052					ND	
77 trans-1,3-Dichloropropene	75		9.301					ND	
78 Ethyl methacrylate	69		9.356					ND	
79 1,1,2-Trichloroethane	97		9.490					ND	
80 Tetrachloroethene	164		9.563					ND	
81 1,3-Dichloropropane	76		9.648					ND	
82 2-Hexanone	43		9.709					ND	
83 n-Butyl acetate	43		9.827					ND	
84 Chlorodibromomethane	129		9.861					ND	
85 Ethylene Dibromide	107		9.977					ND	
86 3-Chlorobenzotrifluoride	180		10.433					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.457					ND	
88 4-Chlorobenzotrifluoride	180		10.518					ND	
89 1,1,1,2-Tetrachloroethane	131		10.548					ND	
90 Ethylbenzene	106		10.560					ND	
91 m-Xylene & p-Xylene	106		10.688					ND	
92 o-Xylene	106		11.071					ND	
93 Styrene	104		11.095					ND	
94 Bromoform	173		11.272					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.339					ND	
97 Isopropylbenzene	105		11.442					ND	
98 Cyclohexanone	55		11.530					ND	
99 1,1,2,2-Tetrachloroethane	83		11.752					ND	
100 Bromobenzene	156		11.752					ND	
102 trans-1,4-Dichloro-2-buten	53		11.789					ND	
101 1,2,3-Trichloropropane	110		11.807					ND	
103 N-Propylbenzene	120		11.856					ND	
104 2-Chlorotoluene	126		11.941					ND	
105 3-Chlorotoluene	126		12.008					ND	
106 1,3,5-Trimethylbenzene	105		12.038					ND	
107 4-Chlorotoluene	126		12.068					ND	
108 tert-Butylbenzene	119		12.354					ND	
110 1,2,4-Trimethylbenzene	105		12.409					ND	
111 1,2-dichloro-4-(trifluorom	214		12.458					ND	
112 sec-Butylbenzene	105		12.573					ND	
113 1,3-Dichlorobenzene	146		12.695					ND	
114 4-Isopropyltoluene	119		12.731					ND	
115 1,4-Dichlorobenzene	146		12.798					ND	
116 2,4-Dichloro-1-(triflourom	214		12.823					ND	
117 1,2,3-Trimethylbenzene	105		12.825					ND	
118 2,5-Dichlorobenzotrifluori	214		12.865					ND	
119 Benzyl chloride	91		12.911					ND	
120 n-Butylbenzene	91		13.139					ND	
121 1,2-Dichlorobenzene	146		13.151					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.942					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.087					ND	
124 1,3,5-Trichlorobenzene	180		14.133					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.507					ND	
126 1,2,4-Trichlorobenzene	180		14.763					ND	
127 Hexachlorobutadiene	225		14.915					ND	
128 Naphthalene	128		15.030					ND	
129 1,2,3-Trichlorobenzene	180		15.261					ND	
131 2,4,5-Trichlorotoluene	159		16.027					ND	
130 2,3,6-Trichlorotoluene	159		16.119					ND	
152 Formaldehyde TIC	1		0.000					ND	
155 1-Chloro-1-fluoroethane TI	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 60 Tert-amyl methyl ether (TI	73		7.262					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 136 Mesityl oxide TIC	83		0.000						ND
T 138 Methyl n-amyl ketone TIC	43		0.000						ND
T 156 2-ethoxy-2-methyl butane T	59		0.000						ND
T 157 Ethanol TIC	45		0.000						ND
T 153 1,2 Epoxybutane TIC	42		6.253						ND
T 137 Tetrahydrofuran TIC	42		6.253						ND

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D06.D

Injection Date: 14-Nov-2017 01:58:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL

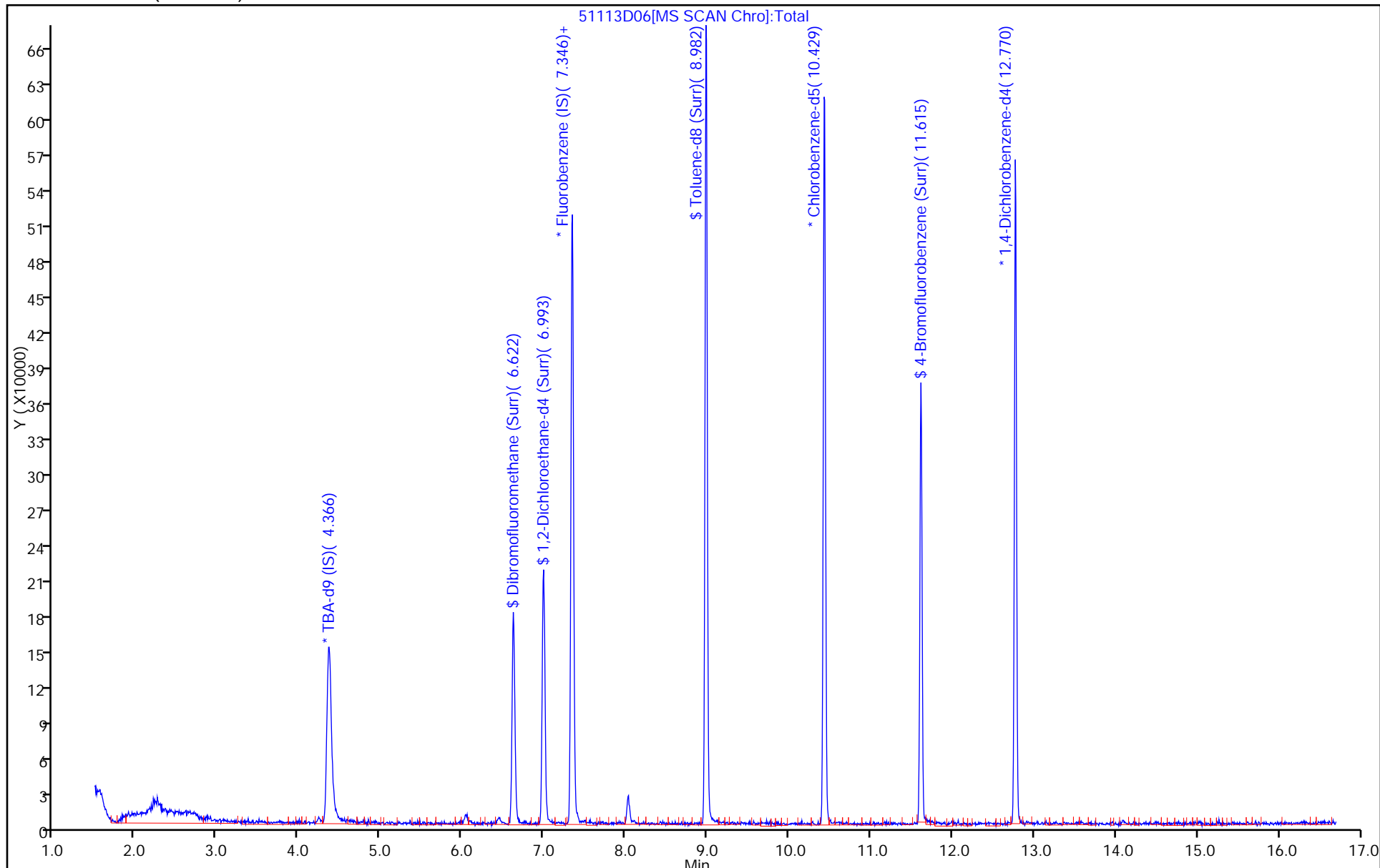
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 14-Nov-2017 01:58:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-006
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:34 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf Date: 14-Nov-2017 02:20:29

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	51.1	102.26
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.6	111.23
\$ 7 Toluene-d8 (Surr)	50.0	48.3	96.63
\$ 8 4-Bromofluorobenzene (Surr)	50.0	41.9	83.81

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-229098/7
 Matrix: Water Lab File ID: 51115D07.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 03:22
 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.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.90
75-01-4	Vinyl chloride	1.0	U	1.0	0.88
74-83-9	Bromomethane	1.0	U	1.0	0.89
75-00-3	Chloroethane	1.0	U	1.0	0.90
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.55
67-64-1	Acetone	5.0	U	5.0	3.4
75-15-0	Carbon disulfide	1.0	U	1.0	0.88
75-09-2	Methylene Chloride	1.0	U	1.0	0.36
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.67
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.59
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.63
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.71
74-97-5	Bromochloromethane	1.0	U	1.0	0.63
78-93-3	2-Butanone (MEK)	5.0	U	5.0	2.6
67-66-3	Chloroform	1.0	U	1.0	0.60
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.60
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.88
71-43-2	Benzene	1.0	U	1.0	0.60
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.57
79-01-6	Trichloroethene	1.0	U	1.0	0.69
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.66
75-27-4	Bromodichloromethane	1.0	U	1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	3.1
108-88-3	Toluene	1.0	U	1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.58
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.45
127-18-4	Tetrachloroethene	1.0	U	1.0	0.47
591-78-6	2-Hexanone	5.0	U	5.0	3.3
124-48-1	Dibromochloromethane	1.0	U	1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.50
108-90-7	Chlorobenzene	1.0	U	1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.57
100-41-4	Ethylbenzene	1.0	U	1.0	0.51
1330-20-7	Xylenes, Total	2.0	U	2.0	0.89
100-42-5	Styrene	1.0	U	1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 180-229098/7
 Matrix: Water Lab File ID: 51115D07.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 03:22
 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.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	1.0	U	1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.60
107-13-1	Acrylonitrile	20	U	20	7.8
123-91-1	1,4-Dioxane	200	U	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		65-121
2037-26-5	Toluene-d8 (Surr)	103		73-120
460-00-4	4-Bromofluorobenzene (Surr)	103		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D07.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Nov-2017 03:22:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-007
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 03:44:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.350	4.377	-0.027	0	330734	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.349	7.352	-0.003	98	746059	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.446	10.443	0.003	88	175998	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.785	0.003	98	246794	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.631	6.622	0.009	92	171477	50.0	47.8	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.996	6.993	0.003	0	241189	50.0	55.1	
\$ 7 Toluene-d8 (Surr)	98	8.992	8.995	-0.003	95	720567	50.0	51.4	
\$ 8 4-Bromofluorobenzene (Surr	95	11.626	11.629	-0.003	88	260305	50.0	51.5	
11 Dichlorodifluoromethane	85		1.640					ND	
12 Chloromethane	50		1.859					ND	
13 Vinyl chloride	62		1.974					ND	
14 Butadiene	39		1.999					ND	
15 Bromomethane	94		2.309					ND	
16 Chloroethane	64		2.418					ND	
17 Dichlorofluoromethane	67		2.741					ND	
18 Trichlorofluoromethane	101		2.759					ND	
19 Ethanol	45	2.884	2.821	0.063	2	6782			NC
20 Ethyl ether	59		3.118					ND	
21 Acrolein	56		3.307					ND	
22 1,1-Dichloroethene	96		3.416					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.495					ND	
24 Acetone	43		3.526					ND	
25 Iodomethane	142		3.617					ND	
26 Carbon disulfide	76		3.714					ND	
27 Isopropyl alcohol	45		3.805					ND	
29 Acetonitrile	41		3.969					ND	
28 3-Chloro-1-propene	76		4.000					ND	
30 Methyl acetate	43		4.043					ND	
31 Methylene Chloride	84		4.225					ND	
32 2-Methyl-2-propanol	59		4.511					ND	
33 Acrylonitrile	53		4.615					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		4.645					ND	
35 Methyl tert-butyl ether	73		4.663					ND	
36 Hexane	57		5.059					ND	
37 1,1-Dichloroethane	63		5.272					ND	
38 Vinyl acetate	43		5.320					ND	
41 Isopropyl ether	45		5.368					ND	
39 2-Chloro-1,3-butadiene	53		5.374					ND	
40 Isopropyl ether TIC	45		5.410					ND	
42 Tert-butyl ethyl ether	59		5.837					ND	
43 Tert-butyl ethyl ether (TI	59	5.956	5.961	-0.005	1	110		0.007372	
45 cis-1,2-Dichloroethene	96		6.020					ND	
44 2,2-Dichloropropane	97		6.014					ND	
46 2-Butanone (MEK)	43		6.038					ND	
47 Propionitrile	54		6.104					ND	
48 Ethyl acetate	43		6.104					ND	
50 Methacrylonitrile	41		6.281					ND	
49 Chlorobromomethane	128		6.300					ND	
51 Tetrahydrofuran	42		6.324					ND	
52 Chloroform	83	6.455	6.446	0.009	64	7325		1.01	M
53 1,1,1-Trichloroethane	97		6.598					ND	
54 Cyclohexane	56		6.671					ND	
56 Carbon tetrachloride	117		6.774					ND	
55 1,1-Dichloropropene	75		6.792					ND	
57 Isobutyl alcohol	41		6.993					ND	
58 Benzene	78		7.005					ND	
59 1,2-Dichloroethane	62		7.078					ND	
151 Isooctane	57		7.157					ND	
61 Tert-amyl methyl ether	73		7.181					ND	
62 n-Heptane	43		7.364					ND	
63 n-Butanol	56		7.698					ND	
64 Trichloroethene	130		7.735					ND	
65 Ethyl acrylate	55		7.856					ND	
66 Methylcyclohexane	83		7.967					ND	
67 1,2-Dichloropropane	63		8.009					ND	
69 Methyl methacrylate	69		8.094					ND	
70 1,4-Dioxane	88		8.094					ND	
68 Dibromomethane	93		8.088					ND	
71 Dichlorobromomethane	83		8.289					ND	
73 2-Chloroethyl vinyl ether	63		8.587					ND	
74 cis-1,3-Dichloropropene	75		8.733					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.891					ND	
76 Toluene	91		9.062					ND	
77 trans-1,3-Dichloropropene	75		9.311					ND	
78 Ethyl methacrylate	69		9.366					ND	
79 1,1,2-Trichloroethane	97		9.506					ND	
80 Tetrachloroethene	164		9.579					ND	
81 1,3-Dichloropropane	76		9.658					ND	
82 2-Hexanone	43		9.719					ND	
83 n-Butyl acetate	43		9.840					ND	
84 Chlorodibromomethane	129		9.871					ND	
85 Ethylene Dibromide	107		9.986					ND	
86 3-Chlorobenzotrifluoride	180		10.443					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.473					ND	
88 4-Chlorobenzotrifluoride	180		10.534					ND	
89 1,1,1,2-Tetrachloroethane	131		10.570					ND	
90 Ethylbenzene	106		10.576					ND	
91 m-Xylene & p-Xylene	106		10.704					ND	
92 o-Xylene	106		11.087					ND	
93 Styrene	104		11.106					ND	
94 Bromoform	173		11.288					ND	
95 Cyclohexanol	57		11.288					ND	
96 2-Chlorobenzotrifluoride	180		11.355					ND	
97 Isopropylbenzene	105		11.452					ND	
98 Cyclohexanone	55		11.543					ND	
99 1,1,2,2-Tetrachloroethane	83		11.769					ND	
100 Bromobenzene	156		11.769					ND	
102 trans-1,4-Dichloro-2-buten	53		11.799					ND	
101 1,2,3-Trichloropropane	110		11.817					ND	
103 N-Propylbenzene	120		11.866					ND	
104 2-Chlorotoluene	126		11.957					ND	
105 3-Chlorotoluene	126		12.024					ND	
106 1,3,5-Trimethylbenzene	105		12.055					ND	
107 4-Chlorotoluene	126		12.079					ND	
108 tert-Butylbenzene	119		12.365					ND	
110 1,2,4-Trimethylbenzene	105		12.426					ND	
111 1,2-dichloro-4-(trifluorom	214		12.468					ND	
112 sec-Butylbenzene	105		12.590					ND	
113 1,3-Dichlorobenzene	146		12.706					ND	
114 4-Isopropyltoluene	119		12.742					ND	
115 1,4-Dichlorobenzene	146		12.809					ND	
117 1,2,3-Trimethylbenzene	105		12.839					ND	
116 2,4-Dichloro-1-(triflourom	214		12.839					ND	
118 2,5-Dichlorobenzotrifluori	214		12.882					ND	
119 Benzyl chloride	91		12.924					ND	
120 n-Butylbenzene	91		13.156					ND	
121 1,2-Dichlorobenzene	146		13.168					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.959					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.099					ND	
124 1,3,5-Trichlorobenzene	180		14.147					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.518					ND	
126 1,2,4-Trichlorobenzene	180		14.780					ND	
127 Hexachlorobutadiene	225		14.926					ND	
128 Naphthalene	128	15.051	15.048	0.003	14	2600		0.2045	
129 1,2,3-Trichlorobenzene	180	15.282	15.273	0.009	1	832		0.2440	
131 2,4,5-Trichlorotoluene	159		16.045					ND	
130 2,3,6-Trichlorotoluene	159		16.137					ND	
152 Formaldehyde TIC	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
155 1-Chloro-1-fluoroethane TI	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 154 Total BTEX	106		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 60 Tert-amyl methyl ether (TI	73	7.270	7.262	0.008	14	447		0.0300	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
T 156 2-ethoxy-2-methyl butane T	59		0.000					ND	
T 157 Ethanol TIC	45		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	
T 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42	6.187	6.253	-0.066	1	835		0	
T 153 1,2 Epoxybutane TIC	42		6.253					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00075

Amount Added: 2.00

Units: uL

Run Reagent

VOA8260SURR_00074

Amount Added: 2.00

Units: uL

Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D07.D

Injection Date: 16-Nov-2017 03:22:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL

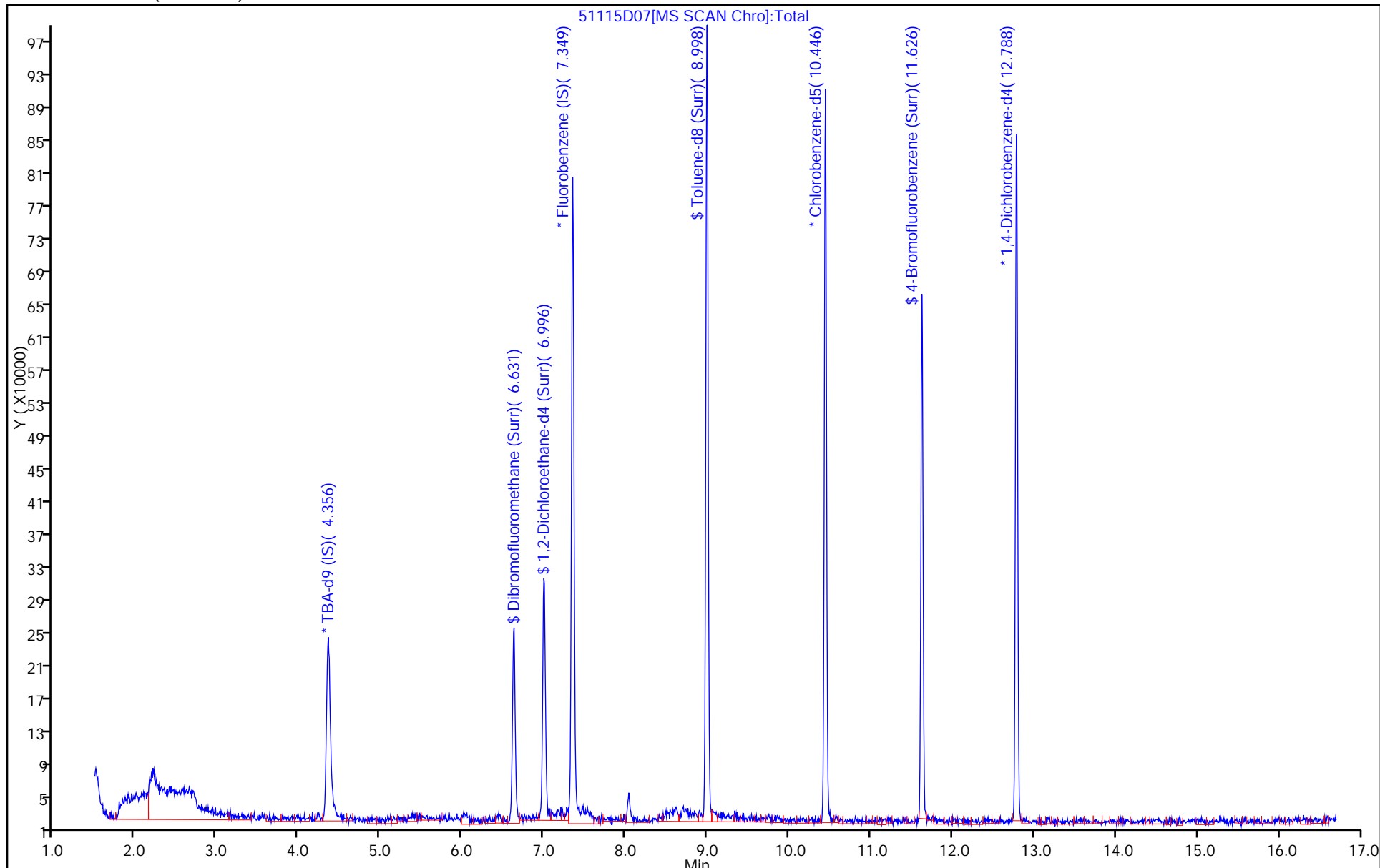
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D07.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Nov-2017 03:22:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-007
 Misc. Info.: MB
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 03:44:23

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	47.8	95.54
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	55.1	110.18
\$ 7 Toluene-d8 (Surr)	50.0	51.4	102.88
\$ 8 4-Bromofluorobenzene (Surr)	50.0	51.5	102.91

TestAmerica Pittsburgh

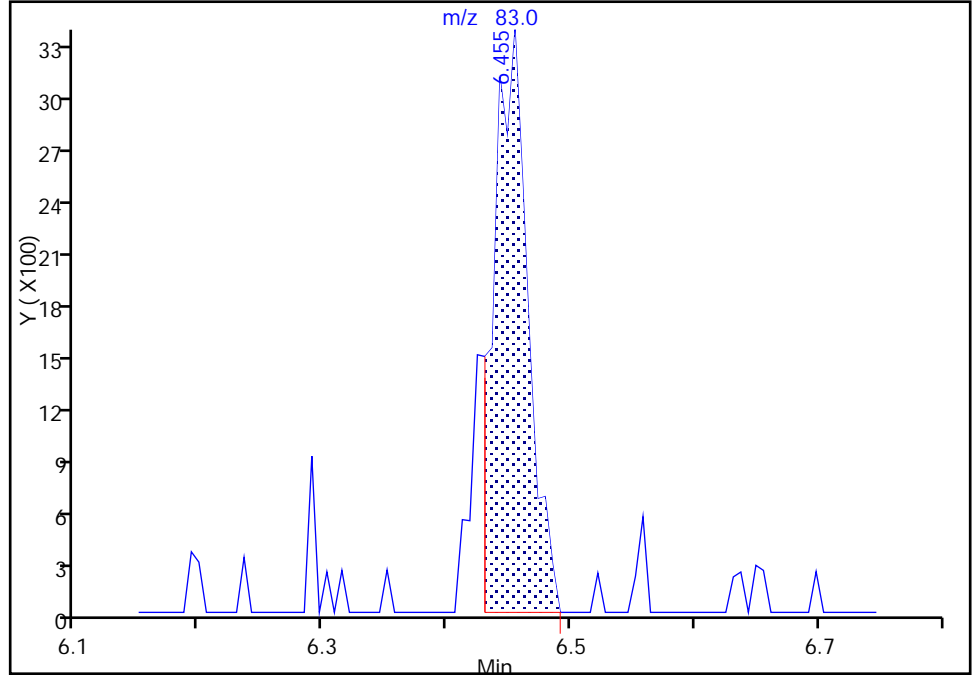
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D07.D
Injection Date: 16-Nov-2017 03:22:30 Instrument ID: CHHP5
Lims ID: MB
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector: MS SCAN

52 Chloroform, CAS: 67-66-3

Signal: 1

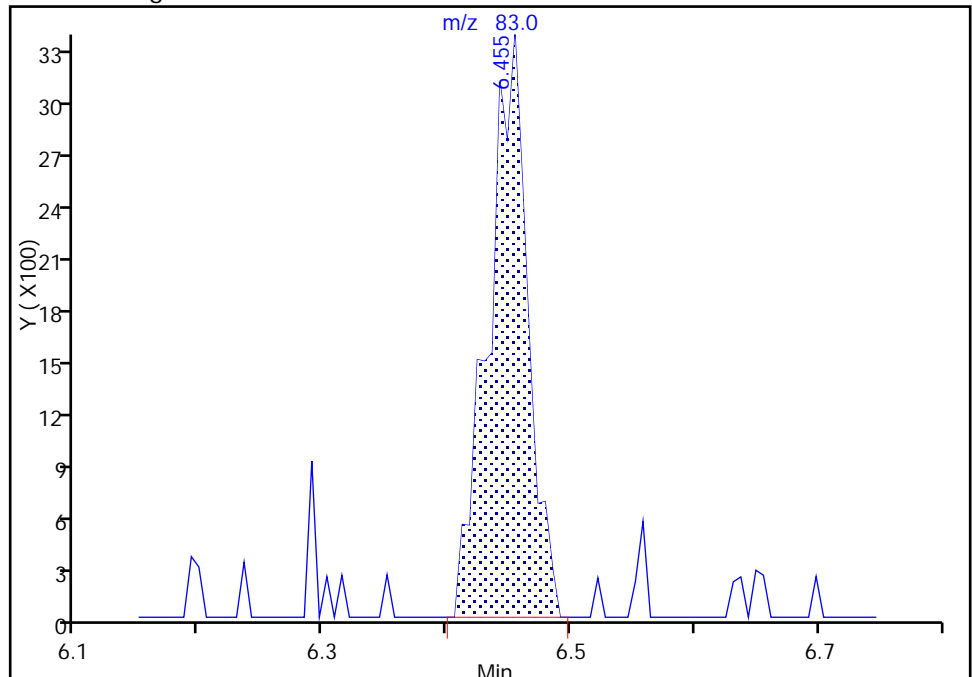
RT: 6.45
Area: 6406
Amount: 0.886508
Amount Units: ng

Processing Integration Results



RT: 6.45
Area: 7325
Amount: 1.013685
Amount Units: ng

Manual Integration Results



Reviewer: bungardf, 16-Nov-2017 03:43:03
Audit Action: Manually Integrated

Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228704/4
 Matrix: Water Lab File ID: 51112D04.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 18:07
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	14.2		1.0	0.90
75-01-4	Vinyl chloride	11.9		1.0	0.88
74-83-9	Bromomethane	11.3		1.0	0.89
75-00-3	Chloroethane	13.4		1.0	0.90
75-35-4	1,1-Dichloroethene	11.1		1.0	0.55
67-64-1	Acetone	20.6		5.0	3.4
75-15-0	Carbon disulfide	11.7		1.0	0.88
75-09-2	Methylene Chloride	11.4		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	11.0		1.0	0.67
1634-04-4	Methyl tert-butyl ether	11.5		1.0	0.59
75-34-3	1,1-Dichloroethane	11.5		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	10.8		1.0	0.71
74-97-5	Bromochloromethane	11.2		1.0	0.63
78-93-3	2-Butanone (MEK)	20.8		5.0	2.6
67-66-3	Chloroform	10.5		1.0	0.60
71-55-6	1,1,1-Trichloroethane	10.8		1.0	0.60
56-23-5	Carbon tetrachloride	11.1		1.0	0.88
71-43-2	Benzene	10.8		1.0	0.60
107-06-2	1,2-Dichloroethane	12.0		1.0	0.57
79-01-6	Trichloroethene	9.59		1.0	0.69
78-87-5	1,2-Dichloropropane	11.3		1.0	0.66
75-27-4	Bromodichloromethane	10.4		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	23.1		5.0	3.1
108-88-3	Toluene	11.5		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	11.5		1.0	0.58
79-00-5	1,1,2-Trichloroethane	11.8		1.0	0.45
127-18-4	Tetrachloroethene	10.2		1.0	0.47
591-78-6	2-Hexanone	21.4		5.0	3.3
124-48-1	Dibromochloromethane	11.5		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	11.3		1.0	0.50
108-90-7	Chlorobenzene	10.7		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	11.2		1.0	0.57
100-41-4	Ethylbenzene	10.4		1.0	0.51
1330-20-7	Xylenes, Total	20.4		2.0	0.89
100-42-5	Styrene	10.5		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228704/4
 Matrix: Water Lab File ID: 51112D04.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/12/2017 18:07
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: DB-624 ID: 0.18 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 228704 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.4		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	10.9		1.0	0.60
107-13-1	Acrylonitrile	138		20	7.8
123-91-1	1,4-Dioxane	184	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		65-121
2037-26-5	Toluene-d8 (Surr)	107		73-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D04.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 12-Nov-2017 18:07:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-004
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf Date: 12-Nov-2017 18:47:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.382	4.369	0.013	0	237655	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.344	7.343	0.001	98	484595	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.433	10.432	0.001	86	109400	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.774	12.774	0.000	95	154657	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.620	6.623	-0.003	92	112967	50.0	48.4	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.991	6.988	0.003	0	150416	50.0	52.9	
\$ 7 Toluene-d8 (Surr)	98	8.979	8.983	-0.004	93	466780	50.0	53.6	
\$ 8 4-Bromofluorobenzene (Surr	95	11.613	11.616	-0.003	84	156853	50.0	49.9	
11 Dichlorodifluoromethane	85	1.682	1.685	-0.003	99	187652	50.0	66.6	
12 Chloromethane	50	1.895	1.886	0.009	100	201512	50.0	71.2	
13 Vinyl chloride	62	2.016	2.014	0.002	62	171193	50.0	59.6	
14 Butadiene	39	2.022	2.020	0.002	93	196270	50.0	75.2	
15 Bromomethane	94	2.387	2.366	0.021	91	76803	50.0	56.5	
16 Chloroethane	64	2.472	2.458	0.014	98	105643	50.0	66.9	
17 Dichlorofluoromethane	67	2.764	2.768	-0.004	82	241573	50.0	60.5	
18 Trichlorofluoromethane	101	2.813	2.786	0.027	97	215013	50.0	60.9	M
20 Ethyl ether	59	3.129	3.121	0.008	94	167786	50.0	73.0	
21 Acrolein	56	3.312	3.315	-0.003	98	97753	150.0	168.9	
22 1,1-Dichloroethene	96	3.427	3.425	0.002	97	132036	50.0	55.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.518	3.510	0.008	94	151557	50.0	58.2	
24 Acetone	43	3.537	3.540	-0.003	99	130491	100.0	103.0	
25 Iodomethane	142	3.616	3.613	0.003	95	215462	50.0	57.8	
26 Carbon disulfide	76	3.707	3.704	0.003	99	305206	50.0	58.6	
28 3-Chloro-1-propene	76	4.017	4.002	0.015	91	85509	50.0	55.8	
30 Methyl acetate	43	4.047	4.039	0.008	99	359351	100.0	143.2	
31 Methylene Chloride	84	4.230	4.227	0.003	97	165588	50.0	56.8	
32 2-Methyl-2-propanol	59	4.510	4.513	-0.003	92	148259	500.0	527.5	
33 Acrylonitrile	53	4.619	4.617	0.002	100	840612	500.0	688.9	
34 trans-1,2-Dichloroethene	96	4.656	4.647	0.009	99	148389	50.0	54.9	
35 Methyl tert-butyl ether	73	4.662	4.659	0.003	97	418396	50.0	57.7	
36 Hexane	57	5.063	5.061	0.003	96	207297	50.0	59.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.276	5.267	0.009	96	269260	50.0	57.3	
38 Vinyl acetate	43	5.325	5.322	0.003	98	314239	50.0	65.7	
45 cis-1,2-Dichloroethene	96	6.018	6.009	0.009	82	167139	50.0	54.1	
44 2,2-Dichloropropane	97	6.012	6.009	0.003	62	40986	50.0	68.5	
46 2-Butanone (MEK)	43	6.030	6.027	0.003	99	187665	100.0	104.0	
49 Chlorobromomethane	128	6.291	6.295	-0.004	97	77291	50.0	56.2	
51 Tetrahydrofuran	42	6.310	6.307	0.003	89	124793	100.0	118.8	
52 Chloroform	83	6.437	6.441	-0.004	94	245925	50.0	52.4	
53 1,1,1-Trichloroethane	97	6.602	6.593	0.009	98	192100	50.0	54.1	
54 Cyclohexane	56	6.669	6.666	0.002	96	253523	50.0	57.8	
56 Carbon tetrachloride	117	6.766	6.769	-0.003	96	164829	50.0	55.7	
55 1,1-Dichloropropene	75	6.784	6.788	-0.004	92	183286	50.0	47.7	
57 Isobutyl alcohol	41	6.985	6.988	-0.003	91	156222	1250.0	1620.1	
58 Benzene	78	6.997	7.000	-0.003	97	638302	50.0	54.2	
59 1,2-Dichloroethane	62	7.076	7.073	0.003	97	206869	50.0	60.2	
62 n-Heptane	43	7.356	7.353	0.003	90	175638	50.0	63.3	
64 Trichloroethene	130	7.727	7.724	0.003	97	142221	50.0	48.0	
66 Methylcyclohexane	83	7.958	7.961	-0.003	96	201916	50.0	45.0	
67 1,2-Dichloropropane	63	7.994	7.998	-0.004	95	155637	50.0	56.7	
70 1,4-Dioxane	88	8.085	8.077	0.008	44	25637	1000.0	918.9	
68 Dibromomethane	93	8.085	8.083	0.002	96	88438	50.0	55.0	
71 Dichlorobromomethane	83	8.280	8.278	0.002	98	163615	50.0	51.8	
73 2-Chloroethyl vinyl ether	63	8.578	8.582	-0.004	92	188509	100.0	95.5	
74 cis-1,3-Dichloropropene	75	8.724	8.721	0.003	93	200829	50.0	52.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.876	8.880	-0.004	99	324381	100.0	115.6	
76 Toluene	91	9.052	9.050	0.002	97	626404	50.0	57.4	
77 trans-1,3-Dichloropropene	75	9.296	9.299	-0.003	97	171113	50.0	57.6	
78 Ethyl methacrylate	69	9.356	9.354	0.002	93	161402	50.0	45.1	
79 1,1,2-Trichloroethane	97	9.490	9.488	0.002	91	134463	50.0	59.2	
80 Tetrachloroethene	164	9.563	9.561	0.002	94	106482	50.0	51.2	
81 1,3-Dichloropropane	76	9.648	9.652	-0.004	97	232680	50.0	55.4	
82 2-Hexanone	43	9.709	9.707	0.002	99	230804	100.0	107.2	
84 Chlorodibromomethane	129	9.861	9.859	0.002	92	110452	50.0	57.5	
85 Ethylene Dibromide	107	9.971	9.974	-0.003	96	131930	50.0	56.6	
86 3-Chlorobenzotrifluoride	180	10.433	10.436	-0.003	89	221125	50.0	58.8	
87 Chlorobenzene	112	10.463	10.461	0.002	94	379933	50.0	53.5	
88 4-Chlorobenzotrifluoride	180	10.524	10.522	0.002	96	207777	50.0	59.9	
89 1,1,1,2-Tetrachloroethane	131	10.554	10.552	0.002	93	126302	50.0	55.9	
90 Ethylbenzene	106	10.561	10.558	0.003	99	206215	50.0	52.0	
91 m-Xylene & p-Xylene	106	10.694	10.692	0.002	0	250780	50.0	51.8	
92 o-Xylene	106	11.071	11.075	-0.004	96	231843	50.0	50.2	
93 Styrene	104	11.090	11.093	-0.003	95	409948	50.0	52.5	
94 Bromoform	173	11.272	11.276	-0.004	95	61901	50.0	51.9	
96 2-Chlorobenzotrifluoride	180	11.339	11.343	-0.004	94	213052	50.0	59.2	
97 Isopropylbenzene	105	11.436	11.440	-0.004	96	551193	50.0	48.9	
99 1,1,2,2-Tetrachloroethane	83	11.752	11.750	0.002	85	183810	50.0	54.6	
100 Bromobenzene	156	11.752	11.756	-0.004	95	145060	50.0	48.3	
102 trans-1,4-Dichloro-2-buten	53	11.789	11.786	0.003	77	62002	50.0	68.5	
101 1,2,3-Trichloropropane	110	11.807	11.805	0.002	87	62226	50.0	50.2	
103 N-Propylbenzene	120	11.856	11.853	0.003	99	159343	50.0	46.5	
104 2-Chlorotoluene	126	11.941	11.939	0.003	96	143235	50.0	48.3	
105 3-Chlorotoluene	126	12.008	12.011	-0.003	97	191146	50.0	59.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.038	12.036	0.002	95	485288	50.0	49.4	
107 4-Chlorotoluene	126	12.063	12.066	-0.003	96	159199	50.0	49.7	
108 tert-Butylbenzene	119	12.348	12.352	-0.004	95	343072	50.0	41.8	
110 1,2,4-Trimethylbenzene	105	12.409	12.413	-0.004	97	477631	50.0	47.9	
111 1,2-dichloro-4-(trifluorom	214	12.452	12.455	-0.003	94	121873	50.0	48.8	
112 sec-Butylbenzene	105	12.573	12.577	-0.004	94	507453	50.0	44.3	
113 1,3-Dichlorobenzene	146	12.689	12.693	-0.004	99	266755	50.0	49.7	
114 4-Isopropyltoluene	119	12.732	12.729	0.003	97	417976	50.0	43.8	
115 1,4-Dichlorobenzene	146	12.792	12.796	-0.004	95	277635	50.0	50.4	
116 2,4-Dichloro-1-(trifluorom	214	12.823	12.826	-0.003	93	107141	50.0	46.0	
118 2,5-Dichlorobenzotrifluori	214	12.865	12.863	0.002	0	126316	50.0	50.2	
120 n-Butylbenzene	91	13.139	13.143	-0.004	97	332375	50.0	42.7	
121 1,2-Dichlorobenzene	146	13.151	13.155	-0.004	97	258085	50.0	50.5	
122 1,2-Dibromo-3-Chloropropan	75	13.942	13.945	-0.003	76	27586	50.0	48.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.082	14.085	-0.003	0	494453	150.0	152.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.507	14.505	0.002	0	325582	100.0	97.1	
126 1,2,4-Trichlorobenzene	180	14.769	14.766	0.003	94	90037	50.0	38.5	
127 Hexachlorobutadiene	225	14.909	14.906	0.003	87	30666	50.0	35.8	
128 Naphthalene	128	15.030	15.034	-0.004	96	299382	50.0	37.6	
129 1,2,3-Trichlorobenzene	180	15.261	15.259	0.002	95	78183	50.0	36.6	
131 2,4,5-Trichlorotoluene	159	16.028	16.025	0.003	0	27039	50.0	26.6	
130 2,3,6-Trichlorotoluene	159	16.125	16.122	0.003	95	29167	50.0	30.9	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	102.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	108.9	
S 135 1,3-Dichloropropene, Total	1				0		100.0	110.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00017	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00271	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00025	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D04.D

Injection Date: 12-Nov-2017 18:07:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

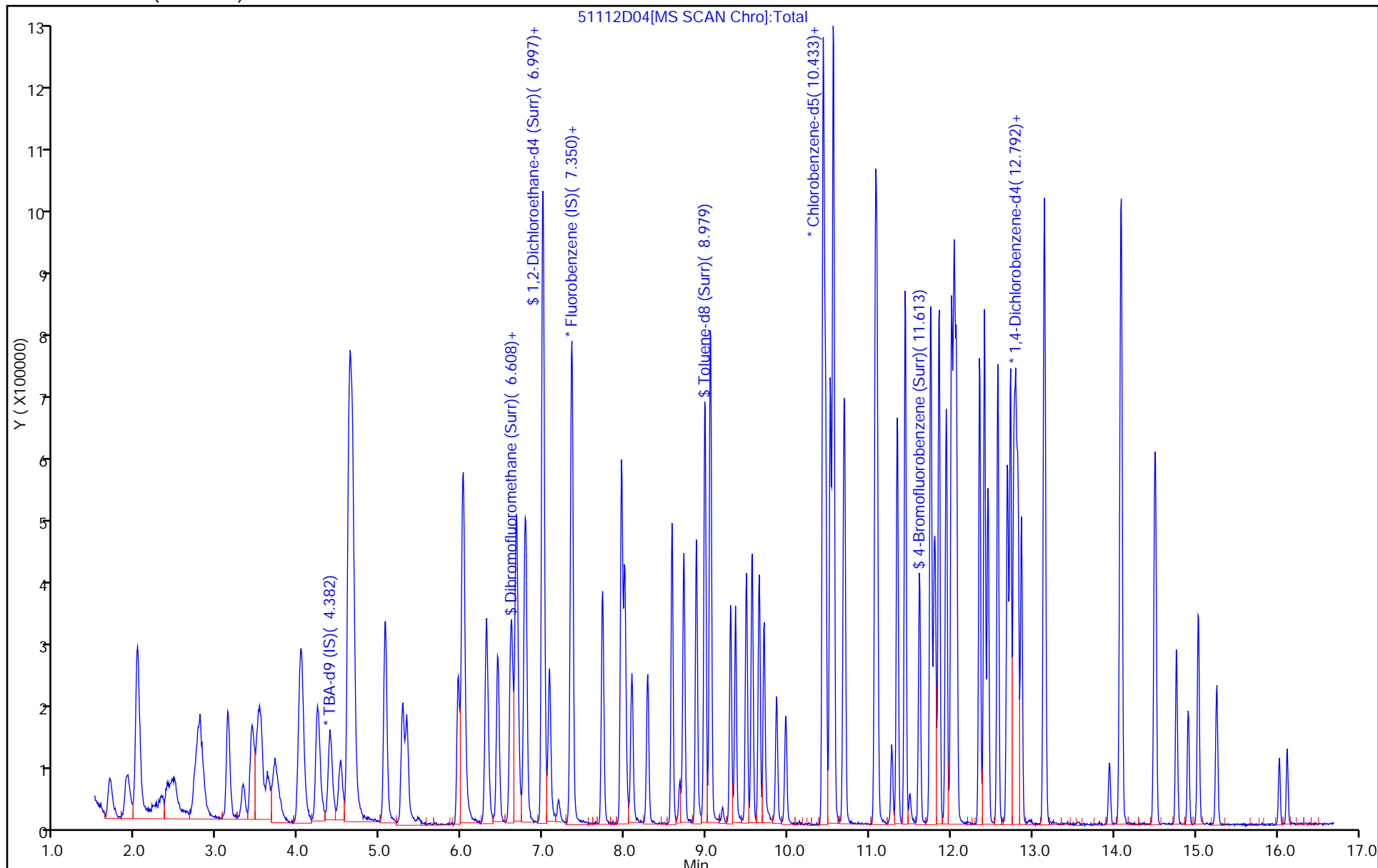
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\51112D04.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 12-Nov-2017 18:07:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019271-004
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171112-19271.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 13-Nov-2017 20:58:11 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: bungardf Date: 12-Nov-2017 18:47:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	48.4	96.90
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	52.9	105.79
\$ 7 Toluene-d8 (Surr)	50.0	53.6	107.22
\$ 8 4-Bromofluorobenzene (Surr)	50.0	49.9	99.76

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228816/4
 Matrix: Water Lab File ID: 51113D04.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 00:59
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13.2		1.0	0.90
75-01-4	Vinyl chloride	10.2		1.0	0.88
74-83-9	Bromomethane	6.38		1.0	0.89
75-00-3	Chloroethane	13.1		1.0	0.90
75-35-4	1,1-Dichloroethene	10.5		1.0	0.55
67-64-1	Acetone	25.0		5.0	3.4
75-15-0	Carbon disulfide	10.5		1.0	0.88
75-09-2	Methylene Chloride	9.94		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	10.1		1.0	0.67
1634-04-4	Methyl tert-butyl ether	9.53		1.0	0.59
75-34-3	1,1-Dichloroethane	10.2		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	9.59		1.0	0.71
74-97-5	Bromochloromethane	9.44		1.0	0.63
78-93-3	2-Butanone (MEK)	23.5		5.0	2.6
67-66-3	Chloroform	9.64		1.0	0.60
71-55-6	1,1,1-Trichloroethane	9.78		1.0	0.60
56-23-5	Carbon tetrachloride	9.90		1.0	0.88
71-43-2	Benzene	9.44		1.0	0.60
107-06-2	1,2-Dichloroethane	10.1		1.0	0.57
79-01-6	Trichloroethene	8.40		1.0	0.69
78-87-5	1,2-Dichloropropane	9.61		1.0	0.66
75-27-4	Bromodichloromethane	9.01		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	9.29		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	21.4		5.0	3.1
108-88-3	Toluene	10.5		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	9.94		1.0	0.58
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.45
127-18-4	Tetrachloroethene	9.28		1.0	0.47
591-78-6	2-Hexanone	21.3		5.0	3.3
124-48-1	Dibromochloromethane	10.4		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	9.54		1.0	0.50
108-90-7	Chlorobenzene	9.74		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	10.5		1.0	0.57
100-41-4	Ethylbenzene	9.61		1.0	0.51
1330-20-7	Xylenes, Total	18.9		2.0	0.89
100-42-5	Styrene	9.59		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-228816/4
 Matrix: Water Lab File ID: 51113D04.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/14/2017 00:59
 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.: 228816 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.35		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.85		1.0	0.60
107-13-1	Acrylonitrile	115		20	7.8
123-91-1	1,4-Dioxane	188	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		65-121
2037-26-5	Toluene-d8 (Surr)	110		73-120
460-00-4	4-Bromofluorobenzene (Surr)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D04.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 14-Nov-2017 00:59:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-004
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:34 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf Date: 14-Nov-2017 01:23:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.389	4.366	0.023	0	251026	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.345	7.340	0.004	99	562477	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.434	10.429	0.005	85	122879	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.769	12.771	-0.002	95	181206	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.621	6.614	0.007	93	134565	50.0	49.7	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.986	6.984	0.002	0	169320	50.0	51.3	
\$ 7 Toluene-d8 (Surr)	98	8.980	8.985	-0.005	93	537661	50.0	55.0	
\$ 8 4-Bromofluorobenzene (Surr	95	11.614	11.612	0.002	84	183679	50.0	52.0	
11 Dichlorodifluoromethane	85	1.689	1.675	0.014	99	177467	50.0	54.3	
12 Chloromethane	50	1.902	1.894	0.008	100	216992	50.0	66.0	
13 Vinyl chloride	62	2.029	2.010	0.019	62	170154	50.0	51.0	
14 Butadiene	39	2.023	2.016	0.007	94	204386	50.0	67.4	
15 Bromomethane	94	2.352	2.338	0.014	89	50351	50.0	31.9	
16 Chloroethane	64	2.449	2.448	0.001	97	119638	50.0	65.3	
17 Dichlorofluoromethane	67	2.765	2.758	0.007	97	284001	50.0	61.2	
18 Trichlorofluoromethane	101	2.802	2.794	0.008	93	232735	50.0	56.8	M
20 Ethyl ether	59	3.136	3.129	0.007	94	165208	50.0	62.0	
21 Acrolein	56	3.319	3.317	0.002	97	96871	150.0	144.2	
22 1,1-Dichloroethene	96	3.422	3.415	0.007	97	144004	50.0	52.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.513	3.512	0.001	94	157557	50.0	52.1	
24 Acetone	43	3.538	3.530	0.008	99	183890	100.0	125.0	
25 Iodomethane	142	3.629	3.622	0.007	97	216949	50.0	50.2	
26 Carbon disulfide	76	3.708	3.701	0.007	99	316566	50.0	52.4	
28 3-Chloro-1-propene	76	4.018	3.999	0.019	91	81860	50.0	46.0	
30 Methyl acetate	43	4.036	4.047	-0.011	99	337566	100.0	115.9	
31 Methylene Chloride	84	4.225	4.224	0.001	96	169623	50.0	49.7	
32 2-Methyl-2-propanol	59	4.511	4.509	0.002	91	154738	500.0	521.2	
33 Acrylonitrile	53	4.620	4.613	0.007	100	814922	500.0	575.4	
34 trans-1,2-Dichloroethene	96	4.650	4.643	0.007	98	157792	50.0	50.3	
35 Methyl tert-butyl ether	73	4.663	4.661	0.002	98	400993	50.0	47.7	
36 Hexane	57	5.058	5.057	0.001	95	201494	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.277	5.270	0.007	97	277689	50.0	50.9	
38 Vinyl acetate	43	5.332	5.324	0.008	97	325794	50.0	58.7	
44 2,2-Dichloropropane	97	6.007	6.011	-0.004	80	40457	50.0	58.2	
45 cis-1,2-Dichloroethene	96	6.013	6.011	0.002	82	172033	50.0	47.9	
46 2-Butanone (MEK)	43	6.031	6.030	0.001	99	246380	100.0	117.7	
49 Chlorobromomethane	128	6.299	6.297	0.002	96	75271	50.0	47.2	
51 Tetrahydrofuran	42	6.317	6.309	0.008	92	117708	100.0	96.5	
52 Chloroform	83	6.438	6.443	-0.005	94	262585	50.0	48.2	
53 1,1,1-Trichloroethane	97	6.597	6.595	0.001	98	201558	50.0	48.9	
54 Cyclohexane	56	6.669	6.662	0.007	95	268474	50.0	52.8	
56 Carbon tetrachloride	117	6.773	6.766	0.007	96	169837	50.0	49.5	
55 1,1-Dichloropropene	75	6.785	6.784	0.001	93	192271	50.0	43.2	
57 Isobutyl alcohol	41	6.986	6.984	0.002	91	152366	1250.0	1361.4	
58 Benzene	78	6.998	6.997	0.001	97	645410	50.0	47.2	
59 1,2-Dichloroethane	62	7.077	7.076	0.001	97	202276	50.0	50.7	
62 n-Heptane	43	7.357	7.355	0.002	92	180392	50.0	56.0	
64 Trichloroethene	130	7.728	7.726	0.002	99	144505	50.0	42.0	
66 Methylcyclohexane	83	7.959	7.958	0.001	92	202890	50.0	39.0	
67 1,2-Dichloropropane	63	7.995	8.000	-0.005	95	152986	50.0	48.0	
70 1,4-Dioxane	88	8.086	8.085	0.001	48	30485	1000.0	941.4	
68 Dibromomethane	93	8.086	8.091	-0.005	97	87863	50.0	47.1	
71 Dichlorobromomethane	83	8.281	8.280	0.001	98	164956	50.0	45.0	
73 2-Chloroethyl vinyl ether	63	8.579	8.578	0.001	93	185305	100.0	80.9	
74 cis-1,3-Dichloropropene	75	8.725	8.718	0.007	93	206541	50.0	46.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.877	8.876	0.001	99	337120	100.0	107.0	
76 Toluene	91	9.047	9.052	-0.005	98	644926	50.0	52.6	
77 trans-1,3-Dichloropropene	75	9.297	9.301	-0.004	97	165706	50.0	49.7	
78 Ethyl methacrylate	69	9.357	9.356	0.001	92	157398	50.0	39.1	
79 1,1,2-Trichloroethane	97	9.491	9.490	0.001	90	139514	50.0	54.7	
80 Tetrachloroethene	164	9.558	9.563	-0.005	92	108459	50.0	46.4	
81 1,3-Dichloropropane	76	9.649	9.648	0.001	96	220069	50.0	46.6	
82 2-Hexanone	43	9.710	9.709	0.001	99	256911	100.0	106.3	
84 Chlorodibromomethane	129	9.862	9.861	0.001	91	112563	50.0	52.2	
85 Ethylene Dibromide	107	9.972	9.977	-0.004	99	124906	50.0	47.7	
86 3-Chlorobenzotrifluoride	180	10.434	10.433	0.001	86	216588	50.0	51.3	
87 Chlorobenzene	112	10.458	10.457	0.001	95	388330	50.0	48.7	
88 4-Chlorobenzotrifluoride	180	10.519	10.518	0.001	96	203809	50.0	52.3	
89 1,1,1,2-Tetrachloroethane	131	10.555	10.548	0.007	94	133002	50.0	52.4	
90 Ethylbenzene	106	10.562	10.560	0.002	98	213936	50.0	48.0	
91 m-Xylene & p-Xylene	106	10.689	10.688	0.001	0	262627	50.0	48.3	
92 o-Xylene	106	11.072	11.071	0.001	96	240084	50.0	46.3	
93 Styrene	104	11.091	11.095	-0.004	96	420784	50.0	47.9	
94 Bromoform	173	11.273	11.272	0.001	95	62677	50.0	46.7	
96 2-Chlorobenzotrifluoride	180	11.340	11.339	0.001	94	205927	50.0	51.0	
97 Isopropylbenzene	105	11.437	11.442	-0.005	96	589451	50.0	46.6	
99 1,1,2,2-Tetrachloroethane	83	11.753	11.752	0.001	86	186186	50.0	49.3	
100 Bromobenzene	156	11.747	11.752	-0.005	97	147922	50.0	42.1	
102 trans-1,4-Dichloro-2-buten	53	11.784	11.789	-0.005	78	61590	50.0	58.1	
101 1,2,3-Trichloropropane	110	11.808	11.807	0.001	87	62843	50.0	43.3	
103 N-Propylbenzene	120	11.857	11.856	0.001	98	176654	50.0	44.0	
104 2-Chlorotoluene	126	11.942	11.941	0.001	96	150753	50.0	43.4	
105 3-Chlorotoluene	126	12.009	12.008	0.001	97	189398	50.0	50.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.039	12.038	0.001	96	511492	50.0	44.5	
107 4-Chlorotoluene	126	12.070	12.068	0.002	97	165509	50.0	44.1	
108 tert-Butylbenzene	119	12.356	12.354	0.002	95	383305	50.0	39.9	
110 1,2,4-Trimethylbenzene	105	12.410	12.409	0.001	97	501916	50.0	42.9	
111 1,2-dichloro-4-(trifluorom	214	12.453	12.458	-0.005	95	123700	50.0	42.2	
112 sec-Butylbenzene	105	12.574	12.573	0.001	94	563420	50.0	42.0	
113 1,3-Dichlorobenzene	146	12.690	12.695	-0.005	98	286293	50.0	45.6	
114 4-Isopropyltoluene	119	12.726	12.731	-0.005	96	472885	50.0	42.3	
115 1,4-Dichlorobenzene	146	12.793	12.798	-0.005	94	302160	50.0	46.8	
116 2,4-Dichloro-1-(trifluorom	214	12.824	12.823	0.001	93	112357	50.0	41.2	
118 2,5-Dichlorobenzotrifluori	214	12.866	12.865	0.001	0	128940	50.0	43.8	
120 n-Butylbenzene	91	13.140	13.139	0.001	98	361066	50.0	39.6	
121 1,2-Dichlorobenzene	146	13.152	13.151	0.001	97	282192	50.0	47.1	
122 1,2-Dibromo-3-Chloropropan	75	13.943	13.942	0.001	80	27049	50.0	40.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.089	14.087	0.002	0	528490	150.0	139.1	
125 2,3- & 3,4- Dichlorotoluen	125	14.508	14.507	0.001	0	354438	100.0	90.2	
126 1,2,4-Trichlorobenzene	180	14.764	14.763	0.001	93	103361	50.0	37.7	
127 Hexachlorobutadiene	225	14.916	14.915	0.001	92	38326	50.0	38.2	
128 Naphthalene	128	15.031	15.030	0.001	97	319909	50.0	34.3	
129 1,2,3-Trichlorobenzene	180	15.256	15.261	-0.005	96	88793	50.0	35.5	
131 2,4,5-Trichlorotoluene	159	16.029	16.027	0.002	0	32492	50.0	27.3	
130 2,3,6-Trichlorotoluene	159	16.126	16.119	0.007	94	32948	50.0	29.8	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.2	
S 133 Xylenes, Total	106				0		100.0	94.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	96.1	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00017	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00025	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00272	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D04.D

Injection Date: 14-Nov-2017 00:59:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL

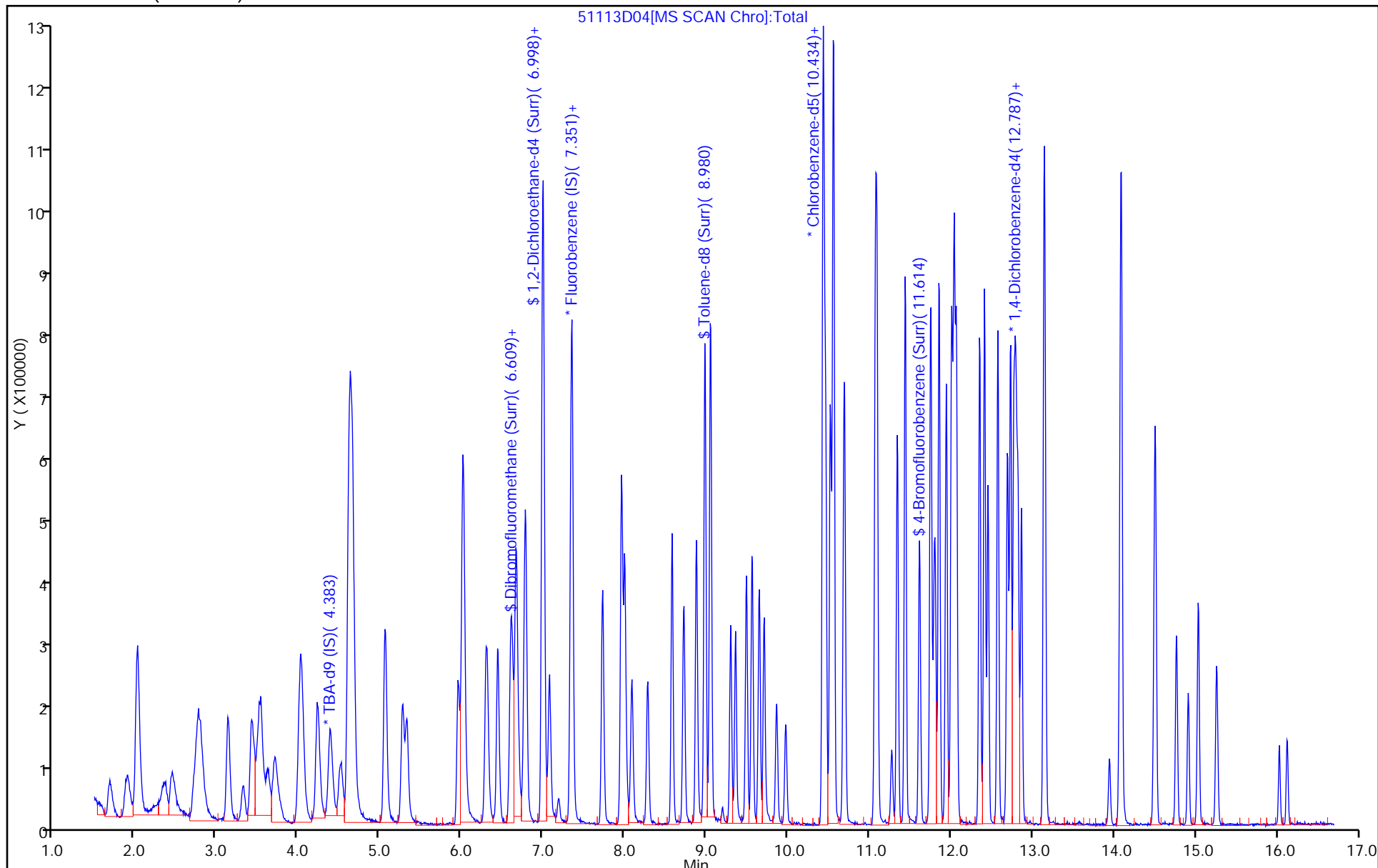
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\51113D04.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 14-Nov-2017 00:59:30 ALS Bottle#: 4 Worklist Smp#: 4
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019287-004
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171113-19287.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 14-Nov-2017 21:18:34 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: bungardf

Date: 14-Nov-2017 01:23:12

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	49.7	99.44
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.3	102.59
\$ 7 Toluene-d8 (Surr)	50.0	55.0	109.96
\$ 8 4-Bromofluorobenzene (Surr)	50.0	52.0	104.01

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-229098/5
 Matrix: Water Lab File ID: 51115D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 02:25
 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.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.5		1.0	0.90
75-01-4	Vinyl chloride	9.73		1.0	0.88
74-83-9	Bromomethane	6.37		1.0	0.89
75-00-3	Chloroethane	12.0		1.0	0.90
75-35-4	1,1-Dichloroethene	9.10		1.0	0.55
67-64-1	Acetone	20.5		5.0	3.4
75-15-0	Carbon disulfide	9.96		1.0	0.88
75-09-2	Methylene Chloride	8.08		1.0	0.36
156-60-5	trans-1,2-Dichloroethene	8.50		1.0	0.67
1634-04-4	Methyl tert-butyl ether	8.63		1.0	0.59
75-34-3	1,1-Dichloroethane	8.59		1.0	0.63
156-59-2	cis-1,2-Dichloroethene	7.74		1.0	0.71
74-97-5	Bromochloromethane	7.68		1.0	0.63
78-93-3	2-Butanone (MEK)	17.7		5.0	2.6
67-66-3	Chloroform	7.99		1.0	0.60
71-55-6	1,1,1-Trichloroethane	8.68		1.0	0.60
56-23-5	Carbon tetrachloride	8.75		1.0	0.88
71-43-2	Benzene	7.97		1.0	0.60
107-06-2	1,2-Dichloroethane	8.87		1.0	0.57
79-01-6	Trichloroethene	7.17		1.0	0.69
78-87-5	1,2-Dichloropropane	8.76		1.0	0.66
75-27-4	Bromodichloromethane	8.26		1.0	0.64
10061-01-5	cis-1,3-Dichloropropene	8.90		1.0	0.59
108-10-1	4-Methyl-2-pentanone (MIBK)	16.5		5.0	3.1
108-88-3	Toluene	9.31		1.0	0.46
10061-02-6	trans-1,3-Dichloropropene	10.5		1.0	0.58
79-00-5	1,1,2-Trichloroethane	9.38		1.0	0.45
127-18-4	Tetrachloroethene	7.50		1.0	0.47
591-78-6	2-Hexanone	16.8		5.0	3.3
124-48-1	Dibromochloromethane	9.52		1.0	0.84
106-93-4	1,2-Dibromoethane (EDB)	8.30		1.0	0.50
108-90-7	Chlorobenzene	8.93		1.0	0.50
630-20-6	1,1,1,2-Tetrachloroethane	8.87		1.0	0.57
100-41-4	Ethylbenzene	8.32		1.0	0.51
1330-20-7	Xylenes, Total	16.8		2.0	0.89
100-42-5	Styrene	8.31		1.0	0.47

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 180-229098/5
 Matrix: Water Lab File ID: 51115D05.D
 Analysis Method: 8260C Date Collected: _____
 Sample wt/vol: 5 (mL) Date Analyzed: 11/16/2017 02:25
 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.: 229098 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.25		1.0	0.98
79-34-5	1,1,2,2-Tetrachloroethane	9.06		1.0	0.60
107-13-1	Acrylonitrile	93.3		20	7.8
123-91-1	1,4-Dioxane	178	J	200	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		65-121
2037-26-5	Toluene-d8 (Surr)	111		73-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		73-120

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D05.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 16-Nov-2017 02:25:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-005
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 02:46:52

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.372	4.377	-0.005	0	297301	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.346	7.352	-0.006	97	726800	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.449	10.443	0.006	90	152543	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	96	196111	50.0	50.0	
\$ 5 Dibromofluoromethane (Surr	113	6.623	6.622	0.000	92	161828	50.0	46.3	
\$ 6 1,2-Dichloroethane-d4 (Sur	65	6.994	6.993	0.001	0	208315	50.0	48.8	
\$ 7 Toluene-d8 (Surr)	98	8.995	8.995	0.000	95	671028	50.0	55.3	
\$ 8 4-Bromofluorobenzene (Surr	95	11.623	11.629	-0.006	82	221473	50.0	50.5	
11 Dichlorodifluoromethane	85	1.646	1.640	0.006	99	239420	50.0	56.6	
12 Chloromethane	50	1.847	1.859	-0.012	99	223565	50.0	52.6	
13 Vinyl chloride	62	1.975	1.974	0.001	98	209784	50.0	48.7	
14 Butadiene	39	1.993	1.999	-0.006	97	234192	50.0	59.8	
15 Bromomethane	94	2.309	2.309	0.000	91	64880	50.0	31.8	
16 Chloroethane	64	2.419	2.418	0.001	100	142298	50.0	60.1	
17 Dichlorofluoromethane	67	2.735	2.741	-0.006	98	327562	50.0	54.7	
18 Trichlorofluoromethane	101	2.760	2.759	0.001	29	261262	50.0	49.3	M
20 Ethyl ether	59	3.118	3.118	0.000	93	175507	50.0	50.9	
21 Acrolein	56	3.301	3.307	-0.006	99	134580	150.0	155.0	
22 1,1-Dichloroethene	96	3.417	3.416	0.001	97	161952	50.0	45.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.490	3.495	-0.005	92	163558	50.0	41.9	
24 Acetone	43	3.514	3.526	-0.012	99	194640	100.0	102.4	
25 Iodomethane	142	3.611	3.617	-0.006	99	226374	50.0	40.5	
26 Carbon disulfide	76	3.702	3.714	-0.012	100	388871	50.0	49.8	
28 3-Chloro-1-propene	76	4.007	4.000	0.007	91	89210	50.0	38.8	
30 Methyl acetate	43	4.031	4.043	-0.012	99	330744	100.0	87.9	
31 Methylene Chloride	84	4.220	4.225	-0.005	97	180779	50.0	40.4	
32 2-Methyl-2-propanol	59	4.499	4.511	-0.012	92	186721	500.0	531.1	
33 Acrylonitrile	53	4.609	4.615	-0.006	98	853870	500.0	466.6	
34 trans-1,2-Dichloroethene	96	4.639	4.645	-0.006	97	172270	50.0	42.5	
35 Methyl tert-butyl ether	73	4.664	4.663	0.001	97	469348	50.0	43.2	
36 Hexane	57	5.053	5.059	-0.006	96	249289	50.0	47.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.272	5.272	0.000	96	302663	50.0	42.9	
38 Vinyl acetate	43	5.321	5.320	0.001	97	399629	50.0	55.7	
45 cis-1,2-Dichloroethene	96	6.020	6.020	0.000	85	179390	50.0	38.7	
44 2,2-Dichloropropane	97	6.020	6.014	0.006	63	45827	50.0	51.1	
46 2-Butanone (MEK)	43	6.032	6.038	-0.006	100	239684	100.0	88.6	
49 Chlorobromomethane	128	6.294	6.300	-0.006	95	79097	50.0	38.4	
51 Tetrahydrofuran	42	6.318	6.324	-0.006	91	138914	100.0	88.2	
52 Chloroform	83	6.440	6.446	-0.006	97	281057	50.0	39.9	
53 1,1,1-Trichloroethane	97	6.604	6.598	0.006	98	231171	50.0	43.4	
54 Cyclohexane	56	6.671	6.671	0.000	93	303863	50.0	46.2	
56 Carbon tetrachloride	117	6.775	6.774	0.001	78	193934	50.0	43.7	
55 1,1-Dichloropropene	75	6.793	6.792	0.001	93	230128	50.0	40.0	
57 Isobutyl alcohol	41	6.994	6.993	0.001	87	186115	1250.0	1286.9	
58 Benzene	78	7.006	7.005	0.001	98	704178	50.0	39.8	
59 1,2-Dichloroethane	62	7.085	7.078	0.007	97	228593	50.0	44.4	
62 n-Heptane	43	7.365	7.364	0.001	89	209572	50.0	50.4	
64 Trichloroethene	130	7.736	7.735	0.001	96	159450	50.0	35.9	
66 Methylcyclohexane	83	7.967	7.967	0.000	92	272054	50.0	40.5	
67 1,2-Dichloropropane	63	8.003	8.009	-0.006	94	180269	50.0	43.8	
70 1,4-Dioxane	88	8.089	8.094	-0.005	47	37235	1000.0	889.8	
68 Dibromomethane	93	8.095	8.088	0.007	90	97537	50.0	40.5	
71 Dichlorobromomethane	83	8.289	8.289	0.000	98	195518	50.0	41.3	
73 2-Chloroethyl vinyl ether	63	8.587	8.587	0.000	93	256933	100.0	86.8	
74 cis-1,3-Dichloropropene	75	8.733	8.733	0.000	93	255874	50.0	44.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.886	8.891	-0.005	98	322972	100.0	82.5	
76 Toluene	91	9.062	9.062	0.000	98	708081	50.0	46.6	
77 trans-1,3-Dichloropropene	75	9.305	9.311	-0.006	96	216852	50.0	52.4	
78 Ethyl methacrylate	69	9.366	9.366	0.000	92	202191	50.0	40.5	
79 1,1,2-Trichloroethane	97	9.500	9.506	-0.006	91	148667	50.0	46.9	
80 Tetrachloroethene	164	9.573	9.579	-0.006	92	108738	50.0	37.5	
81 1,3-Dichloropropane	76	9.658	9.658	0.000	95	261514	50.0	44.6	
82 2-Hexanone	43	9.719	9.719	0.000	98	251426	100.0	83.8	
84 Chlorodibromomethane	129	9.871	9.871	0.000	89	127516	50.0	47.6	
85 Ethylene Dibromide	107	9.987	9.986	0.001	100	134858	50.0	41.5	
86 3-Chlorobenzotrifluoride	180	10.449	10.443	0.006	88	242885	50.0	46.3	
87 Chlorobenzene	112	10.473	10.473	0.000	93	442027	50.0	44.6	
88 4-Chlorobenzotrifluoride	180	10.534	10.534	0.000	97	218117	50.0	45.1	
89 1,1,1,2-Tetrachloroethane	131	10.565	10.570	-0.005	90	139598	50.0	44.3	
90 Ethylbenzene	106	10.571	10.576	-0.005	99	229920	50.0	41.6	
91 m-Xylene & p-Xylene	106	10.705	10.704	0.001	0	283288	50.0	41.9	
92 o-Xylene	106	11.082	11.087	-0.005	98	269438	50.0	41.9	
93 Styrene	104	11.106	11.106	0.000	96	452549	50.0	41.5	
94 Bromoform	173	11.289	11.288	0.001	94	68677	50.0	41.3	
96 2-Chlorobenzotrifluoride	180	11.355	11.355	0.000	95	233508	50.0	46.6	
97 Isopropylbenzene	105	11.453	11.452	0.001	97	676600	50.0	43.1	
99 1,1,2,2-Tetrachloroethane	83	11.769	11.769	0.000	85	212534	50.0	45.3	
100 Bromobenzene	156	11.763	11.769	-0.006	96	152551	50.0	40.1	
102 trans-1,4-Dichloro-2-buten	53	11.800	11.799	0.001	78	74575	50.0	65.0	
101 1,2,3-Trichloropropane	110	11.818	11.817	0.001	85	71732	50.0	45.7	
103 N-Propylbenzene	120	11.866	11.866	0.000	99	183822	50.0	42.3	
104 2-Chlorotoluene	126	11.952	11.957	-0.005	96	159364	50.0	42.4	
105 3-Chlorotoluene	126	12.019	12.024	-0.005	98	205111	50.0	50.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	12.049	12.055	-0.006	94	541779	50.0	43.5	
107 4-Chlorotoluene	126	12.079	12.079	0.000	97	173520	50.0	42.7	
108 tert-Butylbenzene	119	12.365	12.365	0.000	94	440773	50.0	42.4	
110 1,2,4-Trimethylbenzene	105	12.426	12.426	0.000	98	541820	50.0	42.8	
111 1,2-dichloro-4-(trifluorom	214	12.469	12.468	0.001	93	136241	50.0	43.0	
112 sec-Butylbenzene	105	12.590	12.590	0.000	94	618819	50.0	42.6	
113 1,3-Dichlorobenzene	146	12.706	12.706	0.000	97	291757	50.0	42.9	
114 4-Isopropyltoluene	119	12.742	12.742	0.000	96	499290	50.0	41.3	
115 1,4-Dichlorobenzene	146	12.809	12.809	0.000	95	306928	50.0	44.0	
116 2,4-Dichloro-1-(trifluorom	214	12.834	12.839	-0.005	93	127482	50.0	43.2	
118 2,5-Dichlorobenzotrifluori	214	12.882	12.882	0.000	0	138310	50.0	43.4	
120 n-Butylbenzene	91	13.156	13.156	0.000	98	427839	50.0	43.4	
121 1,2-Dichlorobenzene	146	13.168	13.168	0.000	94	280271	50.0	43.2	
122 1,2-Dibromo-3-Chloropropan	75	13.959	13.959	0.000	77	36546	50.0	50.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.099	14.099	0.000	0	644303	150.0	156.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.519	14.518	0.001	0	422363	100.0	99.3	
126 1,2,4-Trichlorobenzene	180	14.780	14.780	0.000	93	107087	50.0	36.1	
127 Hexachlorobutadiene	225	14.926	14.926	0.000	90	38184	50.0	35.2	
128 Naphthalene	128	15.048	15.048	0.000	98	417997	50.0	41.4	
129 1,2,3-Trichlorobenzene	180	15.273	15.273	0.000	95	96676	50.0	35.7	
131 2,4,5-Trichlorotoluene	159	16.046	16.045	0.001	0	50734	50.0	39.4	
130 2,3,6-Trichlorotoluene	159	16.137	16.137	0.000	93	47044	50.0	39.3	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	83.8	
S 134 1,2-Dichloroethene, Total	96				0		100.0	81.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	96.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWEEmix1stR_00017	Amount Added: 2.00	Units: uL	
voaWKet2ndRes_00022	Amount Added: 2.00	Units: uL	
voaWAcro1stRe_00022	Amount Added: 6.00	Units: uL	
voaWVA1stRest_00023	Amount Added: 2.00	Units: uL	
VOA8260VOA2ND_00272	Amount Added: 2.00	Units: uL	
voaW2clev1stR_00026	Amount Added: 2.00	Units: uL	
VOA8260INT_00075	Amount Added: 2.00	Units: uL	Run Reagent
VOA8260SURR_00074	Amount Added: 2.00	Units: uL	Run Reagent

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D05.D

Injection Date: 16-Nov-2017 02:25:30

Instrument ID: CHHP5

Operator ID: 034635

Lims ID: LCS

Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL

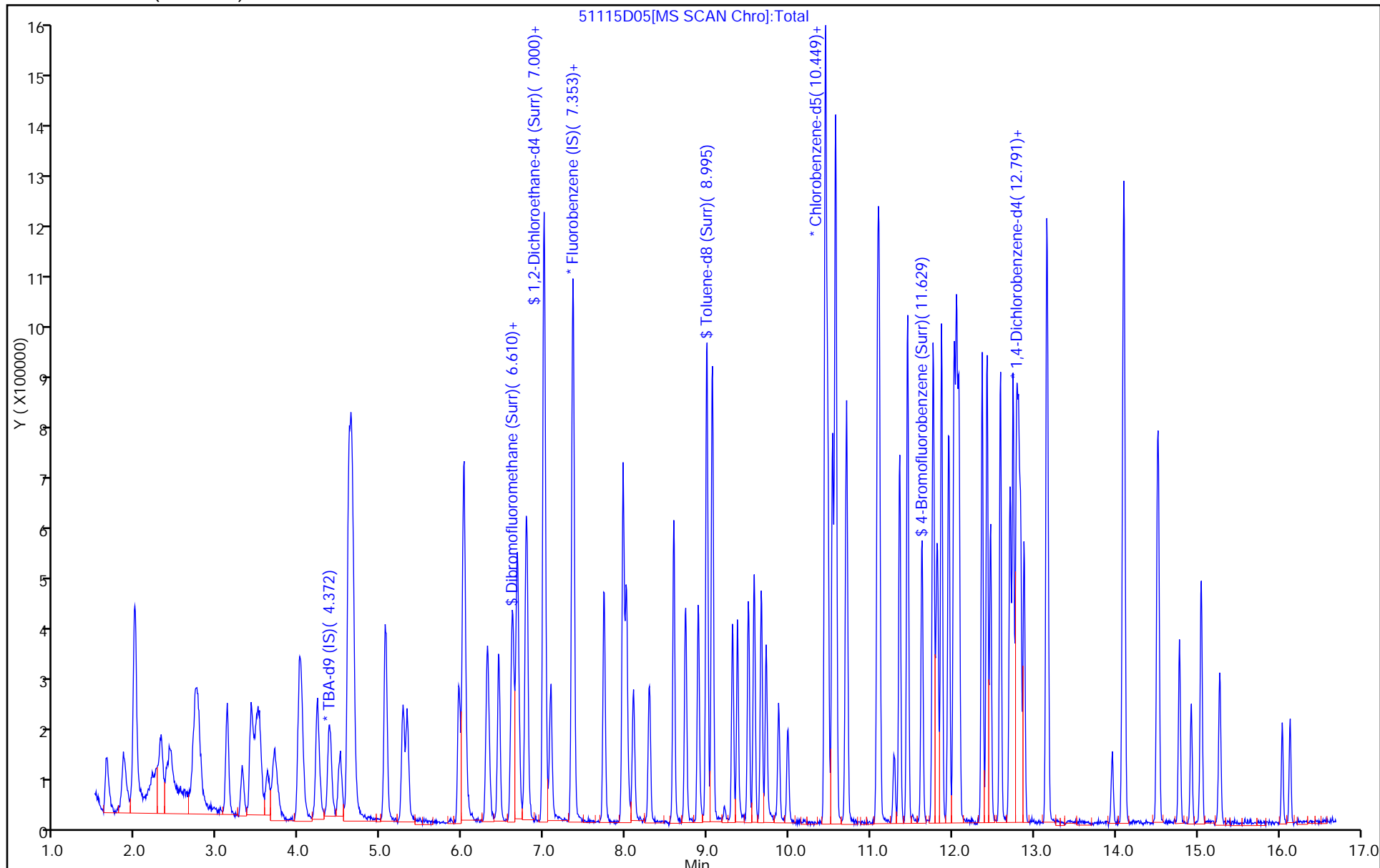
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MSVOA_LL_CHHP5

Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\51115D05.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 16-Nov-2017 02:25:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 180-0019317-005
 Misc. Info.: LCS
 Operator ID: 034635 Instrument ID: CHHP5
 Method: \\ChromNA\Pittsburgh\ChromData\CHHP5\20171115-19317.b\MSVOA_LL_CHHP5.m
 Limit Group: VOA 8260C ICAL
 Last Update: 16-Nov-2017 13:41:52 Calib Date: 27-Jul-2017 04:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP5\20170726-17756.b\50727D11.D
 Column 1 : DB-624 (0.18 mm) Det: MS SCAN
 Process Host: XAWRK007

First Level Reviewer: bungardf

Date: 16-Nov-2017 02:46:52

Compound	Amount Added	Amount Recovered	% Rec.
\$ 5 Dibromofluoromethane (Surr)	50.0	46.3	92.55
\$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.8	97.68
\$ 7 Toluene-d8 (Surr)	50.0	55.3	110.54
\$ 8 4-Bromofluorobenzene (Surr)	50.0	50.5	101.02

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5Start Date: 06/08/2017 05:32Analysis Batch Number: 213537End Date: 06/08/2017 13:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-213537/1		06/08/2017 05:32	1	50608D01.D	DB-624 0.18 (mm)
IC 180-213537/2		06/08/2017 06:03	1	50608D02.D	DB-624 0.18 (mm)
IC 180-213537/3		06/08/2017 06:27	1	50608D03.D	DB-624 0.18 (mm)
ICIS 180-213537/4		06/08/2017 06:50	1	50608D04.D	DB-624 0.18 (mm)
IC 180-213537/5		06/08/2017 07:24	1	50608D05.D	DB-624 0.18 (mm)
IC 180-213537/6		06/08/2017 07:48	1	50608D06.D	DB-624 0.18 (mm)
IC 180-213537/7		06/08/2017 08:11	1	50608D07.D	DB-624 0.18 (mm)
IC 180-213537/8		06/08/2017 08:35	1	50608D08.D	DB-624 0.18 (mm)
IC 180-213537/9		06/08/2017 08:59	1	50608D09.D	DB-624 0.18 (mm)
ICV 180-213537/11		06/08/2017 09:46	1	50608D11.D	DB-624 0.18 (mm)
IC 180-213537/12		06/08/2017 10:10	1		DB-624 0.18 (mm)
IC 180-213537/13		06/08/2017 10:33	1		DB-624 0.18 (mm)
IC 180-213537/14		06/08/2017 10:57	1		DB-624 0.18 (mm)
IC 180-213537/15		06/08/2017 11:20	1		DB-624 0.18 (mm)
IC 180-213537/16		06/08/2017 11:44	1		DB-624 0.18 (mm)
IC 180-213537/17		06/08/2017 12:08	1		DB-624 0.18 (mm)
IC 180-213537/18		06/08/2017 12:31	1		DB-624 0.18 (mm)
IC 180-213537/19		06/08/2017 12:55	1		DB-624 0.18 (mm)
ICV 180-213537/21		06/08/2017 13:42	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 07/27/2017 00:22

Analysis Batch Number: 218218 End Date: 07/27/2017 05:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-218218/1		07/27/2017 00:22	1	50727D01.D	DB-624 0.18 (mm)
IC 180-218218/2		07/27/2017 00:51	1	50727D02.D	DB-624 0.18 (mm)
IC 180-218218/3		07/27/2017 01:15	1	50727D03.D	DB-624 0.18 (mm)
ICIS 180-218218/4		07/27/2017 01:39	1	50727D04.D	DB-624 0.18 (mm)
ZZZZZ		07/27/2017 01:39	1		DB-624 0.18 (mm)
IC 180-218218/5		07/27/2017 02:02	1	50727D05.D	DB-624 0.18 (mm)
IC 180-218218/6		07/27/2017 02:26	1	50727D06.D	DB-624 0.18 (mm)
IC 180-218218/8		07/27/2017 03:13	1	50727D08.D	DB-624 0.18 (mm)
IC 180-218218/10		07/27/2017 04:00	1	50727D10.D	DB-624 0.18 (mm)
IC 180-218218/11		07/27/2017 04:24	1	50727D11.D	DB-624 0.18 (mm)
ICV 180-218218/12		07/27/2017 05:03	1	50727D12.D	DB-624 0.18 (mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18 (mm)
ZZZZZ		07/27/2017 05:50	1		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 11/12/2017 15:08

Analysis Batch Number: 228704 End Date: 11/13/2017 02:54

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228704/1		11/12/2017 15:08	1	51112D01.D	DB-624 0.18 (mm)
CCVIS 180-228704/2		11/12/2017 17:04	1	51112D02.D	DB-624 0.18 (mm)
ZZZZZ		11/12/2017 17:04	1		DB-624 0.18 (mm)
CCV 180-228704/3		11/12/2017 17:41	1		DB-624 0.18 (mm)
LCS 180-228704/4		11/12/2017 18:07	1	51112D04.D	DB-624 0.18 (mm)
ZZZZZ		11/12/2017 18:42	1		DB-624 0.18 (mm)
ZZZZZ		11/12/2017 18:42	1		DB-624 0.18 (mm)
MB 180-228704/6		11/12/2017 19:06	1	51112D06.D	DB-624 0.18 (mm)
ZZZZZ		11/12/2017 19:39	1		DB-624 0.18 (mm)
ZZZZZ		11/12/2017 20:08	1		DB-624 0.18 (mm)
ZZZZZ		11/12/2017 20:32	1		DB-624 0.18 (mm)
ZZZZZ		11/12/2017 21:19	1		DB-624 0.18 (mm)
180-72047-5		11/12/2017 21:42	1	51112D12.D	DB-624 0.18 (mm)
ZZZZZ		11/12/2017 22:07	1		DB-624 0.18 (mm)
ZZZZZ		11/12/2017 22:31	1		DB-624 0.18 (mm)
ZZZZZ		11/12/2017 22:55	1		DB-624 0.18 (mm)
180-72047-2		11/12/2017 23:19	1	51112D16.D	DB-624 0.18 (mm)
180-72047-4		11/13/2017 00:07	1	51112D18.D	DB-624 0.18 (mm)
ZZZZZ		11/13/2017 00:54	1		DB-624 0.18 (mm)
ZZZZZ		11/13/2017 01:18	1		DB-624 0.18 (mm)
ZZZZZ		11/13/2017 01:42	1		DB-624 0.18 (mm)
ZZZZZ		11/13/2017 02:06	1		DB-624 0.18 (mm)
ZZZZZ		11/13/2017 02:30	5		DB-624 0.18 (mm)
ZZZZZ		11/13/2017 02:54	10		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5 Start Date: 11/13/2017 22:44Analysis Batch Number: 228816 End Date: 11/14/2017 09:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-228816/1		11/13/2017 22:44	1	51113D01.D	DB-624 0.18 (mm)
CCVIS 180-228816/2		11/13/2017 23:53	1	51113D02.D	DB-624 0.18 (mm)
ZZZZZ		11/13/2017 23:53	1		DB-624 0.18 (mm)
CCV 180-228816/3		11/14/2017 00:30	1		DB-624 0.18 (mm)
LCS 180-228816/4		11/14/2017 00:59	1	51113D04.D	DB-624 0.18 (mm)
ZZZZZ		11/14/2017 01:32	1		DB-624 0.18 (mm)
ZZZZZ		11/14/2017 01:32	1		DB-624 0.18 (mm)
MB 180-228816/6		11/14/2017 01:58	1	51113D06.D	DB-624 0.18 (mm)
ZZZZZ		11/14/2017 02:32	1		DB-624 0.18 (mm)
ZZZZZ		11/14/2017 03:02	1		DB-624 0.18 (mm)
ZZZZZ		11/14/2017 03:26	1		DB-624 0.18 (mm)
180-72047-1		11/14/2017 04:14	1	51113D11.D	DB-624 0.18 (mm)
ZZZZZ		11/14/2017 04:38	1		DB-624 0.18 (mm)
ZZZZZ		11/14/2017 05:01	1		DB-624 0.18 (mm)
ZZZZZ		11/14/2017 05:25	1		DB-624 0.18 (mm)
ZZZZZ		11/14/2017 05:49	1		DB-624 0.18 (mm)
180-72047-2 DL		11/14/2017 08:37	5	51113D22.D	DB-624 0.18 (mm)
180-72047-3		11/14/2017 09:01	10	51113D23.D	DB-624 0.18 (mm)
ZZZZZ		11/14/2017 09:25	10		DB-624 0.18 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica PittsburghJob No.: 180-72047-1

SDG No.: _____

Instrument ID: CHHP5Start Date: 11/16/2017 00:22Analysis Batch Number: 229098End Date: 11/16/2017 11:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-229098/1		11/16/2017 00:22	1	51115D01.D	DB-624 0.18 (mm)
ZZZZZ		11/16/2017 00:51	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 00:51	1		DB-624 0.18 (mm)
CCV 180-229098/3		11/16/2017 01:25	1		DB-624 0.18 (mm)
CCVIS 180-229098/4		11/16/2017 01:49	1	51115D04.D	DB-624 0.18 (mm)
LCS 180-229098/5		11/16/2017 02:25	1	51115D05.D	DB-624 0.18 (mm)
ZZZZZ		11/16/2017 02:58	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 02:58	1		DB-624 0.18 (mm)
MB 180-229098/7		11/16/2017 03:22	1	51115D07.D	DB-624 0.18 (mm)
ZZZZZ		11/16/2017 03:56	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 04:20	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 04:44	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 05:33	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 05:57	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 06:21	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 06:45	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 07:09	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 07:33	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 07:57	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 08:21	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 08:45	1		DB-624 0.18 (mm)
180-72047-2 RADL		11/16/2017 09:33	5	51115D22.D	DB-624 0.18 (mm)
180-72047-4 DL		11/16/2017 10:21	100	51115D24.D	DB-624 0.18 (mm)
ZZZZZ		11/16/2017 10:45	1		DB-624 0.18 (mm)
ZZZZZ		11/16/2017 11:09	1		DB-624 0.18 (mm)
180-72047-3 DL		11/16/2017 11:58	1	51115D28.D	DB-624 0.18 (mm)

Shipping and Receiving Documents

TestAmerica Pittsburgh
 301 Alpha Drive
 Pittsburgh, PA 15238
 phone 412.963.7058 fax 412.963.2470

450-KOP

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Project Manager: Christopher D. O'Neil
 Tel/Fax: 717-901-8176 / (717) 657-1611
 Analysis Turnaround Time
 Calendar (C) or Work Days (W)
 2 weeks
 1 week
 5 days
 1 day
 TAT if different from Below: Standard

Client Contact
 Groundwater Sciences Corporation
 2601 Market Place St. Suite 310
 Harrisburg, PA 17110
 (717) 901-8180 Phone
 (717) 657-1611 FAX
 Project Name: 2017 Comprehensive Event
 Site: Harley-Davidson, York, PA
 Quote # 18000557

Site Contact: Kaitlin B. Franssen
 Lab Contact: Carrie Gamber
 Date Submitted: 11/21/17
 Carrier: FEDEX
 COC No: TAP20171102 v1
 Job No. 10012.32.0002
 Container No.
 SDG No.

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCS (8260C)	Select List Total Metals by ICP MS (SW846 6020/SW846 7470A)	Select List Dissolved Metals by ICP MS (SW846 6020/SW846 7470A)	1,4-Dioxane (SW846 8270D LL)	Total Cyanide (SW-846 9014)	Free Cyanide (EPA OIA-1677)
HD-MW-186-0/1-0	11/11/17	0920	GW	W	3						
HD-MW-184-0/1-0	11/11/17	0915	GW	W	3						
HD-MW-181D-0/1-0	11/11/17	0900	GW	W	3						
HD-MW-136A-459.5/400.0	11/11/17	0910	GW	W	3						
HD-QC8-0/1-2	11/11/17	1200	GW	W	2						
						3	1	1	2	1	1
						2	1	1	4	5	1
						N	N	Y	N	N	N

Preservation Used: 1=Ice, 2=HCl, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Unpreserved 7=Zinc Acetate & NaOH
 Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Months

Special Instructions/QC Requirements & Comments: CLP Like Deliverables

Relinquished by (Print and Sign): [Signature]
 Date/Time: 11/21/17 1132
 Company: GSC

Relinquished by: [Signature]
 Date/Time: 11/21/17 1442
 Company: TA

Relinquished by: [Signature]
 Date/Time: 11-3-17 8:45
 Company: AP



180-72047 Chain of Custody

ORIGIN ID: KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1010 WEST 9TH AVE
SUITE 50
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 02NOV17
ACTWGT: 37.00 LB
CAD: 8490299/INET3920

BILL RECIPIENT

TO **SAMPLE RECEIPT**
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058

REF:

INV:
PO:

DEPT:



80-72047 Waybill

FedEx
Express



549J3/F877/184C

J172117091301UV

TRK# 7706 5553 0299
0201

FRI - 03 NOV 3:00P
STANDARD OVERNIGHT

E8 AGCA

15238
PA-US PIT

Part # 156287-435 PRDW EXP 10/18

Uncorrected temp
Thermometer ID

1.6 °C
13

CF 0 Initials TS

PT-WI-SR-001 effective 7/26/13

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-72047-1

Login Number: 72047
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
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 (excluding tests with immediate HTs)	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	